QUALITY IMPROVEMENT GOVERNANCE: AUDIT COMPLIANCE WITH HEALTH NORMS AND STANDARDS, A COMPARATIVE STUDY

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ABSTRACT

This comparative qualitative research explored how the governance structure responded to audit recommendations concerning quality improvement by comparing Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) and Groote Schuur Hospital (GSH). It aimed to understand the quality improvement processes and systems in place, the structure, and how the institutions differ in terms of systems for quality improvement.

Audit reports and quality improvement plans from 2019 to 2023 were obtained from both hospitals; however, CMJAH only had one quality improvement plan for 2023/2024. Semi-structured interviews were conducted with managers and coordinators involved in quality improvement at the institutions. The main findings observed from the research were inadequate adherence to standard operating procedures, limited human resources to ensure that quality improvement activities are implemented, and inadequate monitoring and evaluation tools to monitor progress. Furthermore, the assessment reports indicated that there was no implementation of the remedial actions for external audit findings, risk escalation and mitigation, financial findings, and human resource management. Austerity measures and quality activities funding were also highlighted during participant interviews at both institutions.

Even though both institutions are meeting compliance requirements with health norms and standards, a robust governance structure is required to ensure that all quality improvement activities are conducted as planned and objectives are met. Furthermore, limited human resources have been noted as an impeding factor at both institutions.

DECLARATION

Plagiarism is to present someone else's ideas as my own. Where material written by others has been used (either from a printed source or from the internet), this has been carefully acknowledged and referenced. I have used the APA convention for citation and referencing. Every contribution to and quotation from the work of other people in this project has been acknowledged through citation and referencing.

I know that plagiarism is wrong, and I understand what plagiarism is, and I am aware of the University's policy in this regard. I know that I would plagiarise if I do not give credit to my sources, or if I copy sentences or paragraphs from a book, article, or internet source without proper citation. I know that even if I only change the wording slightly, I still plagiarise when using someone else's words without proper citation. I declare that I have written my sentences and paragraphs throughout my report, and I have credited all ideas I have gained from other people's work. I declare that this project is my original work. I have not allowed anyone to copy my work to pass it off as his or her work.

I, **Asiashu Bongwe (0000596T)**, declare that this write-up is my unaided work. Further, I have not submitted this write-up before for any other purpose apart from the **Research Report (PADM7213A)** at the WITS School of Governance.

Signature: Asiashu Bongwe

Date: 28 February 2025

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LIST OF ABBREVIATIONS

CEO	Chief Executive Officer
CMJAH	Charlotte Maxeke Johannesburg Academic Hospital
COHASA	Council for Health Service Accreditation of South Africa
DOH	Department of Health
GP	Gauteng Province
GSH	Groote Schuur Hospital
HF	Health Facility
NCS	National Core Standard
NDOH	National Department of Health
NHA	National Health Act
OHSC	Office of Health Standards Compliance
PDSA	Plan Do Study Act
PSI	Patient Safety Incident
QA	Quality Assurance
QC	Quality Control
QI	Quality Improvement
QIP	Quality Improvement Plan
SOP	Standard Operating Procedure
TOR	Terms of reference
WC	Western Cape Province
WHO	World Health Organisation

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CHAPTER 1: INTRODUCTION TO THE STUDY

This comparative qualitative research explored how the governance structure was responding to audit recommendations concerning quality improvement by comparing Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) and Groote Schuur Hospital (GSH). This research aimed to understand what conditions result in effective quality improvement in one institution and a lack of quality improvement in another. In addition, it explored systems for quality improvement at an institutional level and their effectiveness.

Governance and quality improvement

Governance is a concept that oversees or controls the state resources, empowers citizens, and solves complex civil, public, private, social, and business problems on behalf of its citizens (Levi-Faur, 2014). Governance is composed of the structure, process, mechanisms, and strategies that institutionalise and naturalize protocols that need to be followed during decision-making processes (Levi-Faur, 2014). Evidence and effective governance structures are important so that gaps are identified and to ensure the prioritisation of action plans (Tello, Barbazza, & Waddell, 2020). Governance processes entail orientation and skill development, agenda setting, reviewing reports, and effectiveness (Brown, 2019). For effective governance, there must be adequate and independent auditing institutions that ensure transparency, integrity, policy coherence, predictability, and accountability in decision-making (Yemek, 2005).

Governance is about cultivating accountability, engaging stakeholders, setting a shared strategic direction, and stewarding resources, and governance roles are coordinating, implementing, and overseeing health services (Shukla, 2018). Accountability ensures the quality of care and is about participative decision-making, and priority settings (Van Belle & Mayhew, 2016).

Governance has been extensively studied in the academic disciplines of public administration, public policy, political science, international relations, management, economics, sociology, and environmental sciences, but not so much in the context of health services (Shukla, 2018). In the health sector, governance deals principally with the adaptation of organisations to new contingencies and the roles of all regulatory, administrative, professional, and clinical authorities in the pursuit of collective goals (Deber, 2014). Health system performance

frameworks should include accountability as part of the leadership and governance function (Van Belle & Mayhew, 2016).

In South Africa, the roles of health professionals are guided by the 2004 National Health Act policy which emphasises the importance of compliance with quality norms and standards. (National Health Act, 2004). The policy further requires that compliance will be monitored, and inspections are done at least once every three years. The 2007 National Department of Health quality policy highlights the importance of quality improvement efforts through data generation to compare and coordinate evidence-based monitoring through the Office of Health Standards Compliance (OHSC) (NDOH, April 2007). Quality improvement policies are essential in ensuring standardisations at institutions for hospital quality improvement through benchmarking (Breyer et al., 2018).

The Health Foundation (2021) highlights that quality can be improved through leadership and governance by establishing arrangements and processes to identify quality issues that require investigation and improvement through the adoption of a consistent, aligned and systematic approach to improving quality. For quality improvement, it is important to understand, describe, define and identify causes and consequences, and implement remedial courses of action (Jones & Fulop, 2021). Systems should be in place to implement new evidence-based interventions with the ability to adapt them to the local context (The Health Foundation, 2021).

The World Health Organisation (WHO, 2017) defines quality as the level of attainment of health systems' intrinsic goals for health improvement and responsiveness to legitimate expectations of the population. Quality is about planning, control, and improvement (Lieberman, 2003). Quality planning includes policy decisions, with clear goals, responsibilities, resourcing, and checks to ensure accountability; quality control translates these plans into guidelines, measures, systems for professional oversight, and tools such as standards and checklists; and quality improvement brings about the changes in individual practices, organisations, and systems to achieve the quality goals and better health outcomes (Beggi et al., 2018). Furthermore, quality improvement is about giving the people closest to issues the time, permission, skills, and resources they need to solve them. It involves a systematic and coordinated approach to solving a problem using specific methods and tools to bring about measurable improvement (The Health Foundation, 2021). Lastly, there is quality assurance which is a systemic process that determines if services meet specified requirements and objectives in the health care system, and quality assurance initiatives have a positive impact as

there will be improved reliability in the system (Hewko, Cummings, Pietrosanu & Edwards, 2018).

Quality improvement in the South African health care sector

The focus of this research was on quality improvement, which is a change process that builds on a foundation of quality planning and quality control (Beggi et al., 2018). It is a process for breaking through to unprecedented levels of performance, identifying areas of improvement, and getting the right people to bring about the change (Limato et al., 2019). Quality improvement is about understanding why the system is not meeting benchmarks and finding solutions to suboptimal performance (Loving, Nolan, & Bessel, 2022). Quality improvement implementation leads to the improvement of the quality of care and better performance of different services within the health care establishments. This is achieved by conformity to the standard of excellence through compliance with the health norms and standards (Whittaker, et al., 2011). Quality improvement brings improvement in health care delivery through interventions aimed at reducing the quality gap aided by governance mechanisms such as audits, regulation and policy implementation (Lynn et al., 2007).

The NDOH 2007 Quality Policy indicates that monitoring standards will be followed by facility users, governance structures, service providers, and professional bodies. The PFMA 2018-19 Auditor General report indicates that there is inadequate information available on the extent to which the health governance structure responds to the health norms and standards audit processes after inspections at public health care facilities as per the 2007 Quality Policy, and the 2017 norms and standards regulations. In addition, the 2018/2019 Auditor General audit report indicates that the NDOH does not have sufficient monitoring controls to ensure adherence to its internal policies and for purposes of taking corrective action. The report further highlights that there are gaps in supervision, knowledge, competencies, and support from senior staff, including clinical professionals, and the ineffective governance structure is negatively affecting accountability and quality improvement. Furthermore, the OHSC 2021 report highlights that there are limited guidelines on how quality improvement objectives can be met, how compliance with norms and standards will be done, and what performance measurement indicators will be used to monitor accountability.

A study conducted in Ekurhuleni by Mogakwe, Ally & Magobe (2020) highlights that there is evidence of non-compliance even though interventions were implemented to comply with the

audit's recommendations, and this is due to inadequate support by management and non-involvement of facility managers in decision-making, and poor communication.

Since health care systems are complex, accountability and processes are the responsibility of a board and this requires metrics and structures to ensure effective compliance with norms and standards (Pronovost et al., 2017). In South Africa, currently, there are no uniform criteria guided by a strategic policy framework (Van den Heever, 2019). In the context of this research, governance includes overseeing the implementation of health quality improvement programmes, providing advisory services that give direction, and setting annual performance targets and indicators (Oboirien et al., 2019). The research should highlight areas that need to be studied further and what changes should be made to the governance structure and accountability framework concerning health care quality improvement.

Problem statement

The South African 2014 standard for evaluation in government indicates that audit recommendations must be attended to by using a quality improvement plan, which must be tracked to ensure accountability. Due to ineffective leadership and inadequate management of resources, quality improvement programmes are not yielding fruitful results in South Africa (Maphumulo & Bengu, 2019). Health departments stand out as the worst performing due to poor governance, and this impacts negatively on the quality of health care being provided (Van den Heever, 2019). The policy prescribes monitoring quality performance in the health care system and benchmarking to improve the quality of care (Backmana, Vanderloob & Forster, 2016).

The health facilities are supposed to conform to OHSC; however, setting standards does not guarantee compliance (Moleko, Msibi & Marshall, 2014). The OHSC 2016/2017 inspection report revealed that out of 851 public health sector establishments assessed, 62% of these were non-compliant with norms and standards for health care quality (HSF, 2019, p. 3). Furthermore, the 2019/2020 inspection report revealed an overall noncompliance rate of 85% out of the total of 647 health establishments inspected (OHSC, 2019/2020). Gauteng scored 61%, and Western Cape scored 56% during the 2016/2017 audit (OHSC, 2016/2017). For the 2019/2020 audits, Gauteng scored 22% whilst Western Cape was not inspected due to the coronavirus disease pandemic (OHSC, 2019/2020). Therefore, it was imperative to understand what the governance structures were doing or not doing to meet audit requirements.

Approaches focused on quality assurance without addressing quality improvement due to a lack of accountability by managers as noncompliance is reported directly to NDOH or OHSC (Beggi et al., 2018). The governance structure should plan and organise data and evidence as quality improvement is a systematic data-driven activity that applies specific tools and methods with the required skills, knowledge, and experiences (Oboirien et al., 2019). The current mechanisms of strategies and tools to improve quality care are underdeveloped (Tello, Barbazza, & Waddell, 2020). There is an urgent need for redress in the quality improvement governance structure to ensure accountability (London & Sanders, 2018). A study in the Western Cape province by Cloete (2016) indicates that there is a lack of studies evaluating and reporting compliance with standards. Furthermore, there is no significant improvement in compliance after three years even though quality improvement is part of the quality policy and health norms and standards. This research compared the two institutions to understand if compliance and noncompliance with health norms and standards is a result of the effective quality improvement governance structure at an institutional level.

Research purpose

The purpose of the study was to understand if the quality improvement governance structures were effective in improving compliance with norms and standards at an institutional level.

Sub-purposes were:

a. To understand the currently allocated systems to meet audit requirements by analysing the governance structures that were being applied to monitor the audit outcome and recommendations.
b. To explore how the governance structure ensured audit recommendations had been addressed in the past four years.

Research question(s)

The main research question for this study was: How do the quality improvement governance structures improve compliance with norms and standards at an institutional level?

Further sub-questions to explore the quality improvement governance structures were:

a. How does the quality improvement governance structure ensure compliance with health norms and standards at an institutional level?
b. Why were the systems meeting or not meeting the audit requirements?

c. What were the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement?
d. How do governance structures ensure the implementation of audit recommendations concerning quality improvement?

Characteristics of the hospitals and participants interviewed

Both hospitals are academic training institutions affiliated with a medical university. The number of personnel at Groote Schuur Hospital (GSH) is estimated at 3806, whilst this could not be established at Charlotte Maxeke Academic Hospital (CMJAH). The number of beds at GSH is estimated at one thousand and nine beds, and CMJAH is estimated at one thousand and ninety-four beds. Both hospitals are serving more than ten thousand patients per day. Both hospitals have a quality assurance department of at least four team members, and two interviews were conducted at both hospitals.

Audit reports and quality improvement plans from 2019 to 2023 were obtained from both hospitals. Five audit reports from Groote Schuur Hospital (GSH) were analysed, whilst Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) submitted four reports for analysis, and this is due to the fire that happened in the year 2021. CMJAH only had one quality improvement plan for the year 2023/2024, and the other years' quality improvement plans (QIPs) were not available at the time of the research. GSH had four quality improvement plans as the 2019 QIP could not be located. Semi-structured interviews were conducted with managers and coordinators involved in quality improvement at both institutions. Below is the outline of the chapters in this research:

Table 1: Research chapters summary

CHAPTERS OF THE STUDY	CHAPTER OVERVIEW
CHAPTER ONE OVERVIEW OF THE STUDY	Chapter one provides a background on the need to explore quality improvement governance in the health sector and a brief overview of quality improvement compliance regulation programmes in South Africa. Fundamentals of quality are also covered in this chapter as they are a core foundation for quality improvement, and the importance of having a quality improvement governance structure to ensure standardisation in the health sector is also part of the chapter.

	The problem statement highlights the need to carry out research in quality improvement governance as most programmes are not yielding fruitful results in South Africa (Maphumulo & Bengu, 2019), and the last section of the chapter indicates the research objectives and questions for the study.
CHAPTER TWO LITERATURE REVIEW	Chapter two is a literature review chapter focusing on factors leading to ineffective policy implementation and what can be done to ensure effective implementation, the importance of data utilisation and tools to resolve issues using evidence-driven decision-making to ensure transparent stakeholder participation and benchmarking. In addition, the literature review indicates the effects of unclear governance structures and remedial actions when regulation is ineffective, including accountability measures as per the 2011 National Core Standard, whose objective is to benchmark the health care facility. Furthermore, the literature review emphasises the importance of quality improvement collaboration and why the quality improvement process needs to ensure compliance with norms and standards. The cost of quality was explored, and it was found that the successful quality improvement implementation depends on the context of the system or the decision-making organisation structure as failure is a consequence of the austerity measures and fiscal federalist budgeting arrangements that did not ring-fence health expenditure (Van Niekerk, 2012). Lastly, the literature review highlights what quality improvement involves, and the conceptual framework indicating the governance component and areas of interest for the research study.
CHAPTER THREE RESEARCH DESIGN AND METHODOLOGY	The chapter highlights the process undertaken at both institutions, where permission was requested from the ethics committees of the institutions, the processes followed to request the assessment reports and how participant interviews were conducted. The sampling and the data gathering method highlight the steps taken to collect the data, including the reliability and validity of the data as per the data triangulation carried out.

CHAPTER FOUR PRESENTATION OF RESEARCH FINDINGS	Chapter four highlights the findings noted during the research at both institutions. The elements in the discussion are the governance structure, committee framework, and processes. Standard operating procedures (SOP) adherence, stakeholder identification and participation are part of the elements discussed in this chapter. Furthermore, the quality improvement plan objectives, availability and implementation, and how quality improvement activities are being evaluated and monitored are explored in this section.
CHAPTER FIVE RESEARCH ANALYSIS, RECOMMENDATIONS AND CONCLUSION	The research analysis chapter discusses some of the findings, such as the hospital quality assurance (QA) units not having a database dashboard or an electronic monitoring tool to evaluate performance. It further highlights the need to have improvement plans and updates that should be reviewed regularly, including regular QA forum meetings. In addition, the importance of ensuring adequate human resources is also discussed as it affects performance. Lastly, emerging issues such as the OHSC's inability to conduct audits for the past year are noted, as the ongoing austerity measures affect the overall quality improvement activities.

For quality improvement to be effective, there must be a systematic process that is guided by the governance structure responsible for decision-making, including skill development through transparent, accountable mechanisms. Frameworks should be clear on the role and responsibilities of the governance function that must ensure that there is standardisation of process at institutions through the evidence-based monitoring systems. Standardisation entails a consistent, aligned and systematic approach with the understanding of the consequences and remedial course of action to be implemented, and this should be guided by the strategic intervention plan with set targets and clearly defined roles**.**

CHAPTER 2: LITERATURE REVIEW

It is important to understand why the institutional systems are not meeting the set benchmarks by deploying a quality improvement approach to ensure compliance with the health norms and standards and better-quality services. Inadequate monitoring systems to ensure adherence to standard operating procedures and policies can affect quality improvement objectives. Ineffective governance structure and poor communication can lead to insufficient compliance with norms and standards and ineffective implementation of the quality improvement plans. Therefore, this literature review will explore how ineffective policy implementation affects the quality improvement process, the importance of the quality improvement process to ensure compliance with norms and standards through data-driven activities, collaboration, and the consequences of the unclear governance structure, cost of quality and ineffective regulation.

Ineffective policy implementation

The 2011 National Core Standard (NCS) is a benchmark used during an assessment to identify gaps and strengths and indicates certification for compliant facilities. Quality assurance standards were implemented in 2012, but due to political interference with reviews and investigations (Van den Heever, 2019), there is a goal conflict that has a profound effect on the ability of the health care system to monitor its quality (Littlejohns et al., 2016). Considering that the health care service system is complex and multiple stakeholders are involved, the application of a hybrid decision-making governance structure can help stakeholders overcome conflicts and find a consensus solution (Sivakumar, Almehdawe, & Kabir, 2021). To build and operate a quality improvement governance and management system across a complex health system, quality improvement systems principles should be evaluated to address management structures and processes (Pronovost et al., 2017). Assessment tools have been developed to measure compliance against the norms and standards for quality improvement; however, compliance is voluntary with no consequences for facilities that fail to meet the standard requirement (Moleko, Msibi & Marshall, 2014). Evidence for improving the quality of care is available in most institutions, but the governance structure to ensure there is accountability to improve outcomes remains underdeveloped (Tello, Barbazza, & Waddell, 2020). Therefore, it is important to understand how the governance structures ensure the implementation of audit recommendations concerning quality improvement. Even though public facilities are

recognised by independent regulatory organisations, this does not necessarily result in quality improvement (Yıldız et al, 2019).

South Africa has multiple challenges in terms of improving the quality of healthcare. Corruption, nepotism, and accountability must be addressed for regulatory bodies to do their work effectively. (Maphumulo & Bhengu, 2019). Fostering the growth of quality improvement is critical as there is a lack of exemplary health services, centrality, and organisation in Africa, and quality improvement is compounded by a lack of resources and poor governance (Liu et al., 2009). A study in Canada by Backmana, Vanderloob & Forster (2016) found that measuring and improving quality improvement could only be effective if organisations share the same framework measures**.** A study in Uganda by Tibeihaho et al. (2021) indicates that continuous quality improvement as a tool to implement evidence-informed problem-solving will encourage all health care team members to work together towards a common goal of quality services at all levels.

Inability to utilise data and tools to resolve issues

Enticott et al. (2021) have indicated that for the governance structure to be effective, it must be evidence-based on sources such as stakeholders, research, data, and implementation programme reports. A study by Hysong et al. (2022) in America found that having an accountability structure that will identify, prioritise and generate new and improved quality measures by assessing the quality of infrastructure, workforce configurations, and processes is imperative. The quality improvement governance structure is important because it provides tools to measure and monitor the impact of quality interventions. Standard operating procedure adherence is an indication that quality improvement intervention will be able to improve quality as per the standard protocol, changes in scores measure satisfaction, determine the performance, and indicator changes indicate the quality of routine and this can be achieved by following documented standard operating procedures (Stacey et al., 2021).

Quality improvement involves systematic data-driven activities by applying specific tools and methods with the required skills, knowledge, and experiences (Ishijima et al., 2020). Using the concept of audit tools and processes enables evidence-based decisions and data that can be shared between primary health care services, policymakers, and researchers and utilised jointly to analyse variations in the quality of care and system factors (McCalman et al., 2018).

Quality indicators are measures of aspects of care used to monitor, evaluate and guide quality improvements. Measurement of quality indicators promotes transparency for organisations and regulators about structural and procedural aspects of care and benchmarks their performance (Zegers et al., 2022). Each institution must have quality indicators with data dashboards to ensure accessibility by stakeholders, transparency, and benchmarking (Uggerby et al., 2021). Stakeholders who use quality information for quality improvement and governance should align the information and formulate one core set of quality indicators.

To ensure that the audit's recommendations are implemented, the structure must have processes and expected outcomes that can be adaptive, accountable, collaborative, safe, protective, promote health, and are integrated, efficient, accessible, effective, equitable, on time, and patient-focused (Beggi et al., 2018). Effective accountability measures should be implemented, and interventions should be replicable with clear methods (Liu et al., 2009). An Australian perspective by Monash partners emphasises that evidence is vital because it captures, identifies, and addresses priorities and emergent challenges and needs that can be integrated into an intervention to deliver better health outcomes (Enticott et al., 2021). If there are no quality improvement monitoring systems in place to ensure compliance with the health norms and standards, then data tools utilisation to resolve issues will be limited.

When the governance structure is not clear

The accountability framework should entail dimensions such as provider, organisational, social, and political dimensions (Van Belle & Mayhew, 2016). Van Belle & Mayhew (2016) further describe these dimensions as follows: the provider dimension focuses on providers' commitment to quality improvement and responsiveness, and enforces professional standards and ethical codes, peer reviews and other remedial actions; organisational accountability is primarily undertaken to improve the organisational performance and responsiveness to stakeholders, and this is enhanced by transparency and community control, performance reviews and organisational audits; the political dimension focuses primarily on regulatory processes in institutions , involving regulation of processes based on mutually agreed roles and responsibilities for public participation in decision-making, including public investigations and public redress mechanisms; and the social dimension of accountability involves relations and social processes by including processes of information sharing within self-organised networks and collective action to redress unfairness and rights violations, and the outcome is the bolstering of equity and fairness in the system.

The health system requires a wider response in terms of governance using evidence-based decisions and enabling governance conditions with accountability arrangements (Tello, Barbazza, & Waddell, 2020). Good governance ensures effective management systems for better health outcomes where the health system structures and processes are regulated, directed, and controlled (Chanturidze & Obermann, 2016). The unavailability of a governance structure to provide oversight to ensure quality care, leadership, and good management have a negative impact on accountability (OHSC 2016/2017, p. 178). Furthermore, Van den Heever (2019) reiterated that a lack of ethical leadership, management, and governance contributes to poor quality of care. The governance structure needs to monitor and evaluate compliance with norms and standards to ensure accountability (Beggi et al., 2018).

When regulation is ineffective

The 2011 National Core Standard (NCS) objective is to benchmark health care facilities and guide the public health care sector at all levels by providing an accountability framework that will ensure compliance with the norms and standards. Governance can be assessed on the performance of the governance responsibilities and against established standards (Shukla, 2018). Governing bodies provide an opportunity for governance reform as governments are at a loss because they do not know where to begin such reforms due to a lack of evidence demonstrating the link of better governance to improvements in health system performance (Shukla, 2018). The institutional capacity of regulatory bodies and mechanisms ensures accountability through the capacity to monitor and enforce rules and regulate societal activities in the public interest (Yemek, 2005).

Regulation is an accountability approach that employs the governing instrument where service providers are expected to behave or not behave in a certain way, and it is about binding agreements whilst enforcing professional regulatory bodies (Deber, 2014). This study also explored why the systems were meeting or not meeting the audit requirements. It is important to have evidence-based models of governance that create a platform for sharing useful instruments and different accountability arrangements (Chanturidze & Obermann, 2016, p.509) that distinguish dimensions of quality improvement, determine important questions, plan future studies, and examine and analyses the effect of quality improvement (Nuckols, Escarce & Asch, 2013).

Quality improvement implementation has evolved from a notion of blame, negligence, and human error to a combined functional system that requires a wider response in terms of

governance-oriented taxonomy (Tello, Barbazza, & Waddell, 2020). Health quality governance can be efficient if targets are set and congruent with state objectives and can be easily monitored by independent audit regulatory bodies to ensure that decisions are fair and inclusive and pose no danger to the government systems (Bevir, 2009). Audits give insight into quality problems and improvements, and how hospital directors govern quality improvement activities. Audit processes are documented study procedures, interviews, and observations, and the audit cycle entails preparation, execution, reporting, development, and implementation of an improvement plan, and follow-up on all audit findings (Hanskamp-Sebregts et al., 2019).

Quality improvement collaboration

Collaboration with clinical audit networks and any other health-related networks is essential in improvement processes. Each institution should investigate the establishment of quality improvement collaborations to ensure understanding and address improvement challenges (Uggerby et al., 2021). With collaboration, discussions can lead to the development of strategies that are consistent and scaling up of techniques and methods through knowledge sharing with expertise (The Health Foundation, 2021).The study in India highlights that collaboration initiatives improved the overall quality, and efficiency of quality improvement programmes, and this has resulted in the competitiveness of hospitals in the market and an increased number of satisfied patients (Sharma & Tripathi, 2022). Therefore, the purpose of this research was to understand how the quality improvement governance structures improve compliance with norms and standards at an institutional level, considering that there are multiple different stakeholders involved, and this requires collaboration.

The importance of the quality improvement process to ensure compliance with norms and standards

Quality improvement is a process for breaking through to unprecedented levels of performance, identifying areas of improvement, and getting the right people to bring about the change. In Indonesia, quality improvement success was decentralised at an individual, team, organisational, and the health system level where it was part of national accreditation programmes (Limato et al., 2019).

To ensure adherence to norms and standards, it is important to structure the quality improvement accountability framework into a localised and dynamic tool that can accommodate the iterative plan-do-study-act cycle; however, this might not be possible in

settings where resources are constrained (Hewko, Cummings, Pietrosanu & Edwards, 2018). Tibeihaho et al. (2021) further support that, for a better-quality improvement process, quality improvement activities must be mandated at all health care facilities and management shall be held accountable through the deployment of the Plan-Do-Study-Act (PDSA) cycle. The PDSA cycle should be clear on what and how to accomplish the set goals, notice a trend due to the changes, and understand which changes have resulted in quality improvement. A governance structure needs to implement a quality improvement model that entails teamwork, discipline, effective resource utilisation, and improvement plans (Ishijima et al., 2020).

Quality improvement seeks to understand why the system is not meeting benchmarks and what went wrong to assist decision-makers in finding solutions to the suboptimal performance, and it is also an appreciative inquiry that further identifies strengths and areas of excellence (Loving, Nolan, & Bessel, 2022). Improving and maintaining quality services needs commitment, while sustaining quality requires good governance, and good governance through managing performance by application of standards will ensure continuous quality improvement activities and accountability (Oboirien et al., 2019).

Mayosi et al. (2012) indicated that in more than 75% of the public healthcare facilities that were audited, few facilities complied with norms and standards. Even though the Council for Health Service Accreditation of South Africa (COHASA) was formed in 1995 as the accreditation body in South Africa and the OHSC in 2013, most facilities are still failing to meet the minimum requirements to attain accreditation that assures clients and stakeholders that services rendered are of good quality (Maphumulo & Bhengu, 2019).

Quality improvement is about identifying and understanding the challenges from a range of perspectives through the theory of change with emphasis on interpreting data, where data will be used to measure the impact and refine the problem whilst ensuring that the intervention is sustained as part of standard practice (The Health Foundation, 2021). Therefore, the governance structure must ensure compliance with health norms and standards.

The cost of quality

Good quality health care services were not regarded as a high priority as gaps are seen in the health system (Moonasar et al., 2021). Compliance with norms and standards seems to be overlooked due to poor leadership, restricted spending, inadequate management and planning, limited human resources, and an increased burden on the public health system (Coovadia et al.,

2009). This research was to establish how the quality improvement governance structures ensures compliance with norms and standards. Quality is costly, and the depth of health care delivery failure is a consequence of the fiscal federalist budgeting arrangements that did not ring-fence health expenditure and, therefore, deteriorating services are observed (Van Niekerk, 2012).

Increasing health care professionals' quality improvement knowledge, attitudes, self-efficacy, and systems thinking is important because higher levels of self-efficacy are associated with higher levels of performing behaviour. Thus, when health care workers feel more confident, they may engage more frequently in quality improvement activities, and this requires effective governance structures that oversee all quality improvement methods (Reese et al., 2021). The government will need to ensure that corruption, nepotism, and accountability by senior managers are taken seriously so that regulatory and accreditation bodies can do their work independently to eradicate biased assessment (Littlejohns et al., 2016).

Pronovost et al. (2017) highlight that to build and operate a quality improvement governance and management system across a complex health system the process cannot be assumed and will require a functional governance structure with principles, metrics, and reporting structure to ensure correction promptly so that governance must move accountability further down the organisation. Complex systems cannot be fully known, controlled, or predicted, so it is the responsibility of leadership and management to analyse what is making a system behave in a certain way and how it can be shifted towards more desirable behaviour patterns to ensure that audit recommendations are implemented (McGill, t al., 2021). It is important to have an accountable framework that summarises the functions of each system whilst generating evidence at different stages of quality data collection and creating the right conditions for improvement, and these include the backing of senior leaders, supportive and engaged colleagues and patients, and access to appropriate resources and skills. (McGill, E. et al., 2021). The successful implementation of the intervention will depend on the context of the system, or the organisation making the change and requires careful consideration.

Conceptual framework

To ensure audit recommendations implementation, the adoption of a governance structure that is evidence-based with associated indicators can develop a robust monitoring system that may improve programmatic effectiveness, strengthen accountability in health systems, drive programmatic quality improvement, and have an impact on improved health outcomes

(Agarwal et al., 2019). McCalman et al. (2018) highlight the importance of understanding the systems through governance intervention to improve services by using the concept of audit tools and processes. Governance is about coherent decision-making structures, stakeholder participation, supervision and regulation, consistency and stability, and transparency and information (Chanturidze & Obermann, 2016).

Pronovost et al. (2017) highlight that to build and operate a quality improvement governance structure with an accountability framework one should ensure that the principles of evaluating the structures and processes should include but not be limited to: ensuring that there is oversight for quality improvement everywhere, creation of a framework to organise and report the work, identification of areas where quality improvement is ambiguous or underdeveloped and work on those areas to ensure there is reporting and accountability for quality measures, the integrity of the data used to measure and report quality and safety performance, and transparency in reporting performance and creating an explicit accountability model.

The research data theme focused on a written quality improvement plan covering key area, a dedicated quality improvement committee that designs and oversees the programme, a training programme that equips staff with the necessary skills and competencies, stakeholder participation in quality improvement processes, and establishment of quality improvement teams and staff participation in the quality improvement processes. Therefore, the following conceptual framework guided the collection of the data and assisted in the analysis of governance and accountability components. The areas of interest were derived from Enticott et al. (2021) and Pronovost et al. (2017) and guided the research.

Table 2: The governance conceptual framework

Governance component	Area of interest
Quality improvement process and structures	• Identifying if quality management processes and structure are everywhere with a consolidated quality statement and activities that are mandated at all levels. • Identifying areas of improvement through evidence of teamwork, effective resource utilisation, and performance behaviour. • Identifying if there are improvement plans in place with set targets that are congruent with state objectives.

Framework processes, and structure that organise and report quality work	• Checking if a governance framework is evidence-based and works on measures specific to the area by using a standardised tool to track and report performance. • Identifying if the framework is adaptive, accountable, collaborative, safe, and protective, promotes health, integrated, efficient, accessible, effective, equitable, on time, and patient-focused.
A quality coordinating governance structure unit that takes decisions to ensure standardisation.	• Identifying if the governance structure investigates quality practices at every point of service care delivery. • Identifying if there is a commitment to quality improvement and responsiveness. • Identifying if there is enforcement of professional standards and ethical codes, peer reviews, and remedial actions. • Identify if the unit monitors and evaluates compliance with norms and standards to ensure accountability.
Transparency and information management	• Identify if there is transparency and performance review. • Identify responsible parties that monitor data quality, and maintain the integrity of data. • Check if there is accuracy whilst doing internal and external audits.
Accountability model that supervises and regulates stability and consistency, including stakeholder participation.	• Identify the accountability model that includes stakeholders such as the organisation leaders and the board of trustees • Identify if there is a supported electronic database and dashboard of performance data that is made public for transparency. • Identify if the regulation processes are based on mutually agreed roles and responsibilities. • Identify if the public participates in decision-making, including investigation and redress mechanisms.

The Health Foundation (2021) indicate that quality improvement is about understanding the root cause of the problem, therefore, it is imperative to have tools and processes that can be used to resolve the issue. This can be achieved by the utilisation of audits or assessments, patient interviews, surveys and mapping, and any remedial action should be guided by

evidence-based processes. Leadership must ensure a focused governance structure exists to ensure quality improvement activities are aligned with the organisation's vision. Furthermore, it is ideal to have a sustainable system by ensuring that the infrastructure is conducive, and resources are available, this should be supported by competent skills and workforce whilst promoting a supportive, learning, collaborative and inclusive workspace culture that encourages people to raise concerns, new ideas and approaches.

The health system is complex, and there are multiple stakeholders involved; conflicts are inevitable, and it is therefore imperative that there are fundamental principles and processes in place to address gaps. Inadequate governance structure is attributed to the lack of accountability due to corruption and nepotism, which leads to poor quality improvement process implementation. Limited resources can lead to an inability to translate inputs, data and implementation reports. Quality improvement is a systematic data-driven activity (Ishijima et al., 2020); therefore, inadequate resources and the required skill set can lead to non-compliance with norms and standards. Inadequate commitment and responsiveness from the hospital institution, political stakeholders and the public at large have a negative impact on accountability, resulting in poor quality of care. Governance responsibilities should be assessed against established standards to ensure regulation of the services, determining the outcome and areas of improvement. Therefore, it is important to have targets set that are congruent with state objectives, whilst being monitored by an independent audit regulatory body for fair and transparent decision-making. Quality improvement collaboration with other health-related networks is important for further understanding of the challenges, scaling up of the current methods through knowledge sharing with subject matter experts (The Health Foundation, 2021).

CHAPTER 3: RESEARCH METHODOLOGY AND DATA COLLECTION

Research approach and design

The research was a basic interpretive comparative qualitative case study between the Charlotte Maxeke Johannesburg Academic Hospital and Groote Schuur Hospital focusing on the quality improvement governance structure of both institutions. This qualitative research aimed to explore vital governance questions about quality improvement processes, context, and structure, as it is a responsive approach to the health governance quality improvement processes (Colvin, 2022). Furthermore, the governance and accountability effectiveness of quality improvement, audit processes, tools, frequency and period of data collection from inspections, and how data and the audit findings concerning quality improvement are responded to were explored. In addition, the researcher was seeking to understand the concerns raised after audits about perceived health problems, interventions, mechanisms that have proven dysfunctional, and improvement processes (Colvin, 2022).

The data was sourced from both hospitals and was collected systematically using this research conceptual framework, data from both institutions was the ideal assessment reports and quality improvement plans. Reports from regulatory and audit organisations such as the OHSC and the Health Ombudsman, which is currently located within the OHSC, were not explored as both hospitals have not been audited for the past four years. After document analysis, semi-structured interviews were conducted to seek further clarifications from the ideal assessment report findings. The data collection was a mixed method as the assessment reports obtained from both hospitals had scores in percentage. This method had attributed to the cross-analysis method done as further clarifications were ascertained during the virtual and face-to-face interviews with participants using the semi-structured questionnaire drafted for this research. Below is a research onion figure depicting the research philosophy, approach, strategy, choice method, and procedure followed during data collection and analysis.

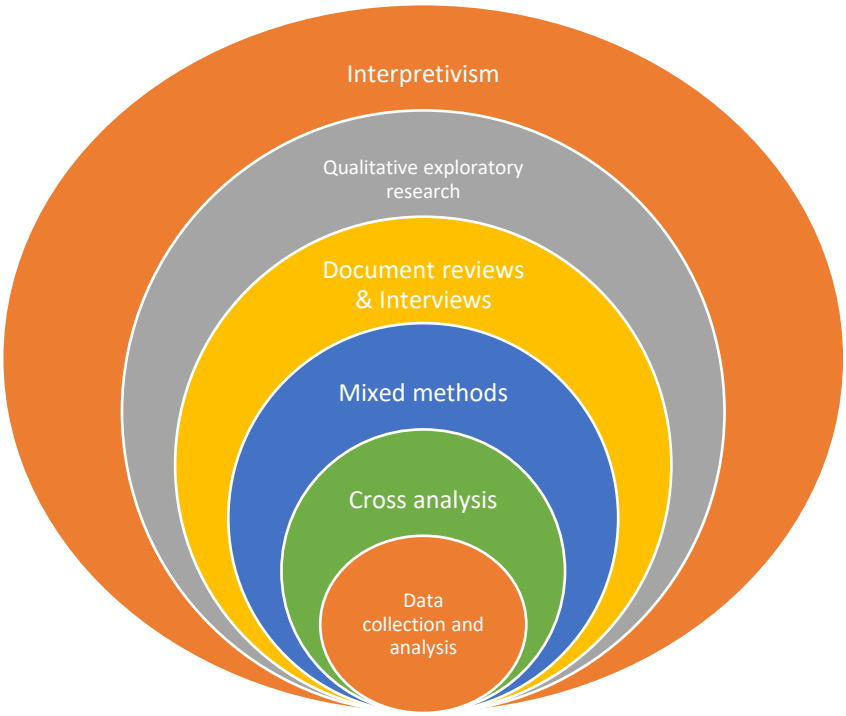

Figure 1: Research onion adopted from Saunders & Bristow (2023)

Sampling

Two different health institutions in different provinces were compared based on asking which institution had the better audit outcomes. The sampling methodology was an analysis of audit reports and conducting semi-structured interviews with those involved in quality improvement processes at each institution.

The permission to do research was obtained through the Western Cape and Gauteng Research online application. Meetings with the Quality Assurance managers at both the GSH and CMJAH were held where a researcher presented the proposal, and discussions concerning approvals from the chief executive officer (CEO) were also held. During the meeting with the CMJAH QA manager, it was indicated that, due to the fire that happened in 2021, there was no audit done and it was advised that the OHSC audits be conducted every four years. However, each facility is expected to conduct its audit every year.

Follow-ups were done through emails, permission was granted, and then the ideal audit reports and quality improvement plans were submitted by each facility. GSH submitted all the requested five assessment reports and quality improvement plans from 2019 to 2024; however, CMJAH submitted four assessment reports and one quality improvement plan for the year 2023, and the facility has indicated that they would check for the improvement plans for the

years prior to that as they could not be located anywhere. For data sampling, the research focused on purposive sampling where previous audit reports were sampled strategically to ensure relevance to the research questions being asked (Bryman, 2012). The sample was a non-probability sample from previous audit reports, and quality improvement plans to determine what was going right and wrong in the systems, where was it failing, and how was system failure being addressed.

The information was collected from both hospital institutions' assessment reports, and quality improvement plans, with a focus on the existence of the governance structure, accountability, monitoring of progress, audit processes, availability of standard operating procedures, implementation and monitoring of quality improvement plans, objectives and targets set by each institution, maintenance, and systems in place to ensure compliance with norms and standards. This was to explore to what extent the governance structure was ensuring that there were changes in terms of health care quality improvement, in what way the governance structure was reviewing the health norms and standard outcomes, and what systems were there in the governance structure to ensure the implementation of audit recommendations concerning quality improvement in Gauteng and Western Cape province institutions since 2019.

Quality improvement is a data-guided activity that improves health care delivery by solving local problems like inefficient, harmful, or badly timed healthcare (Rohrbasser et al., 2018). After document analysis, emails were sent to the QA managers to request permission to conduct semi-structured interviews with participants. Semi-structured interviews were conducted with six participants, three from each hospital involved in the quality improvement process, to seek further clarifications from the audit report findings and the existence of a quality improvement governance structure at each institution. Interviews were done through virtual and face-to-face meetings. The purpose of the interviews was to understand if the governance structure encourages everyone to be involved with assigned responsibilities, if teamwork approaches were being used, and to understand the organisational quality culture. During interviews, the focus was on the hospital governance structure's role in quality improvement processes, including audits, improvement plans, accountability, standard operating procedures, and understanding of compliance with norms and standards. Furthermore, the frequency and period of data collection from inspections, and how data and the audit findings concerning quality improvement were also explored.

Data gathering

The study was a qualitative comparative study where the data type used was secondary data in the form of Ideal assessment reports, and the study-related primary data was obtained through semi-structured interviews with participants from each institution. The document data types were reports, and participant interview responses were transcribed and coded using the Atlas TI application for thematic coding and analysis. Quality improvement is about effectiveness, efficiency, accessibility, and acceptability; therefore, it was essential to ensure that the data to be collected was of good quality because qualitative data identifies patterns, contradictions and responds to questions such as how and why (WHO, 2017). Data sources were secondary data, which were the audit reports from the year 2019 to 2023, followed by the primary data collected from the semi-structured interviews.

Rahi S (2017) defines the study population as all people that one wishes to understand. The study population was a group of two separate groups from each institution that are actively involved in quality improvement activities, processes and monitoring. The population was selected based on their involvement in quality improvement to understand each institution's quality improvement characteristics, beliefs and attitudes of the people towards the activities. Semi-structured interviews were conducted to evaluate the existence, including characteristics of a quality improvement governance structure at each institution.

Non-probability sampling is a random sampling method where a study population is more likely to be selected than others (Bryman, 2012). Non-probability sampling was the sampling approach taken because the population chosen for the study was not confirmed for availability. After contact was made with each institution's departments, the participant contacted, then also referred the researcher to other participants, which resulted in a snowball sampling (Rahi, 2017). Six participants, three from each hospital involved in the quality improvement process, were interviewed through virtual and face-to-face meetings to seek further clarifications on the audit report findings and the existence of a quality improvement governance structure at each institution.

Semi-structured interviews with participants were conducted and guided by themes such as experiences with internal audits, the use of internal audit results for quality improvement, and the preconditions for sharing internal audit results with external supervisory bodies. Triangulation was the method of choice because the data was from the Ideal assessment report

findings and quality improvement plans. Therefore, this research focused on both the primary and secondary data.

During data collection, the researcher must be able to deal with potential sources and personal bias, selection perception, and theoretical predispositions (Patton, 2015). To ensure that the data collected was accurate and of good quality, it was important to ensure that the research design was compatible with the type of research questions asked and to ensure consistency so that only required information was collected.

The data area of focus was on governance structure, tracking what happened to audit findings, how the quality improvement plans were being implemented, what changes were being implemented and the impact of such changes. Participants were interviewed in their workplaces, and all interviews were digitally recorded and transcribed verbatim. Consent to do the interviews was obtained from all participants.

During data collection, the researcher was establishing if quality improvement processes and structure were everywhere with a consolidated quality statement. Furthermore, to understand how a governance framework works on measures specific to the area by using a standardised tool to track and report performance, understanding if the governance structure was investigating quality practices at every point of service care delivery, with further interest on data collection processes. In addition, this was done to identify responsible parties monitoring data quality, maintaining the data integrity, and ensuring accuracy whilst conducting internal and external audits. Furthermore, the researcher established how the quality improvement governance structure model includes stakeholders such as organisation leaders and the Board of Trustees' involvement and how the information from the database and/or dashboard of performance data is made public for transparency.

Research instrument

The following table is the research framework instrument used, which is a combination of the research aims as per the governance component and areas of interest adopted from Enticott et al. (2021) and Pronovost et al. (2017) supported by the semi-structured interview and research questions. The format of the instrument starts with the governance component being explored, followed by semi-structured interview questions, research questions, and research aims. RQ stands for the research question, RA stands for the research aim, and below are the research aims for the study.

Research aims

1. **Research aim 1 (RA1):** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with health norms and standards
2. **Research aim 2 (RA2):** To understand the currently allocated systems to meet audit requirements
3. **Research aim 3 (RA3):** To determine governance structures applicable to monitor the audit outcome and recommendations
4. **Research aim 4 (RA4):** To explore how the governance structure ensures that audit recommendations are addressed

Table 3: Research instrument

Governance component	Exploring semi-structured interview questions	Research questions and aims covered
Quality improvement governance structure	Is there a governance structure indicating responsibilities?	**RQ1:** How does quality improvement governance structure ensure compliance with health norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structure ensures compliance with health norms and standards. **RQ4:** How does the governance structure ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Are organisational quality improvement objectives available?	**RQ1:** How does quality improvement governance structure ensure compliance with health norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structure ensures compliance with health norms and standards.
	Is there a quality improvement consolidated statement?	**RQ4:** How does the governance structure ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.

	Are quality improvement systems in place?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements.
	Is the facility compliant with norms and standards?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Is the facility meeting audit requirements?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	What are the reasons for meeting/not meeting audit requirements?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement?

		RA4: To explore how the governance structure ensures that audit recommendations are addressed.
	What are the systems in place to meet health norms and standards audit requirements?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	How is the monitoring of audit outcomes done?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.
	How are the reviews of the implementation of corrective actions done?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.

	Are audit recommendations implemented?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Is there a monitoring system for audit recommendations implementation?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Are the quality improvement governance processes effective?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	What are the unique systems in place for quality improvement processes?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement?

		RA4: To explore how the governance structure ensures that audit recommendations are addressed.
Quality improvement process and structures	Are quality management processes and structures everywhere with a consolidated quality statement?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.
	Are quality improvement processes mandated at all levels?	**RQ1:** How does the quality improvement governance structure ensure compliance with health norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with health norms and standards.
	Is there a written quality improvement plan covering key areas?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements.
	What are the areas of quality improvement through evidence of teamwork, effective resource utilisation, and performance behaviour?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Are quality improvement plans in place with set targets that are congruent with state objectives?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements.
Framework processes, and structures that	Is there a governance framework that is evidence-based and works	**RQ1:** How does the quality improvement governance structure ensure compliance with

organise and report quality progress	on measures specific to the area by using a standardized tool to track and report performance?	health norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with health norms and standards.
	Is the framework adaptive, accountable, collaborative, safe, and protective, promotes health, integrated, efficient, accessible, effective, equitable, on time, and patient-focused?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.
	Is there a dedicated quality improvement committee that designs and oversees the programme?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations. **RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
Quality coordinating governance structure unit that takes decisions to ensure standardisation	Is the governance structure investigating quality practices at every point of service care delivery?	**RQ1:** How does the quality improvement governance structure ensure compliance with norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with norms and standards.
	Is there a training programme that equips staff with the	**RQ2:** Why are the systems meeting and not meeting audit requirements?

	necessary skills and competencies when it comes to quality improvement?	**RA2:** To understand the currently allocated systems to meet audit requirements.
	Is there a commitment and responsiveness to quality improvement?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Is there enforcement of professional standards and ethical codes, peer reviews, and remedial actions?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements.
	Is there a unit that monitors and evaluates compliance with norms and standards to ensure accountability?	**RQ3: What a**re the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.
Transparency and information management	How are transparency and performance reviews managed?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Do stakeholders participate in quality improvement processes, e.g. patient suggestion boxes, other staff members?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.
	Is data collection done by responsible parties that monitor	**RQ2:** Why are the systems meeting and not meeting audit requirements?

	data quality, and maintain the integrity of data?	**RA2:** To understand the currently allocated systems to meet audit requirements.
	How is the data accuracy during internal and external audits monitored?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.
Accountability model that supervises and regulates stability and consistency including stakeholder participation	Is there an accountability model that includes stakeholders such as organisation leaders and the boards of trustees?	**RQ1:** How does the quality improvement governance structure ensure compliance with norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with norms and standards.
	Are the quality improvement teams established, and staff participate actively in the quality improvement processes?	**RQ2:** Why are the systems meeting and not meeting audit requirements? **RA2:** To understand the currently allocated systems to meet audit requirements.
	Is the accountability model supported by an electronic database and dashboard of performance and is data made public for transparency?	**RQ1:** How does the quality improvement governance structure ensure compliance with norms and standards at an institutional level? **RA1:** The main objective of the study is to understand if the quality improvement governance structures ensure compliance with norms and standards.
	Are the regulation processes based on mutually agreed roles and responsibilities?	**RQ3:** What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? **RA3:** To determine governance structures applicable to monitor the audit outcome and recommendations.

	Does the public participate in decision-making, including investigation and redress mechanisms?	**RQ4:** How do the governance structures ensure the implementation of audit recommendations concerning quality improvement? **RA4:** To explore how the governance structure ensures that audit recommendations are addressed.

Reliability and validity of the data

Bryman (2012) defines reliability as a degree to which a measure of a concept is stable and validity as a concern with the integrity of the conclusions generated from research. The validity of the research was based on the audit reports and quality improvement plans. The facility assessment reports and quality improvement plans were requested from the two hospitals; therefore, the credibility of the research was based on that the reports submitted have been approved by each institution's authorities for reporting purposes to stakeholders. Both hospitals indicated that it has been more than four years of not being audited by the OHSC, and some participants do not remember seeing such audits being conducted since their employment date. The research findings can be applied to other settings in relation to quality improvement services at each health facility in South Africa. To ensure data dependability, the researcher started by analysing the assessment reports and quality improvement plans submitted by both institutions, then proceeded to conduct interviews where the audios available have been transcribed and further analysed. Ishijima et al. (2020), highlight that quality improvement is an evidence-based data-driven activity in conjunction with the application of tools and methods with the required skills, knowledge, resources and experiences, with the support of the governance structure providing oversight, ensuring teamwork, and discipline to ensure effective implementation. Therefore, it was imperative that the researcher had to be objective during the participant interviews, considering that she had reviewed the secondary data submitted.

The research objectives were to establish if compliance and non-compliance with norms and standards are an outcome of the quality improvement governance structure model at both institutions. Data triangulation entailed data from assessment reports where findings were

cross-checked through semi-structured interviews with those involved in quality improvement processes.

Assessment reports and quality improvement plans were requested from both institutions. Both the assessment reports and quality improvement plans were analysed. The assessment checklist, which also serves as a report template, has more than 400 elements that were reviewed, and the quality improvement plans were developed from the elements where gaps were identified during the assessment. The Ideal audit assessment checklist was the main core of the research as both hospitals indicated that the checklist is the hospital department's tool. Therefore, no other audit tools or related reports were explored for internal audits. Some information might not be interpreted depending on its credibility and confirmability (Stenfors, Kajamaa &Bennett, 2020). Therefore, at GSH the 2019 and 2020 reports overall scores were the same, and upon further request by the researcher, the hospital was unable to establish what could have happened because the difference was noted in both reports.

After the review of the data reports and quality improvement plans, participant interviews were held, and some participants were interviewed virtually, and others face to face. For GSH, one interview was face-to-face, and the other was virtual, and for CMJAH all interviews were face-to-face. The purpose of the interviews was to ascertain if the assessment reports were congruent with the activities being done at both hospitals. It was noted during the interviews that the most senior participants had a way of concealing some information during the interviews. However, the junior participants were open, answering questions freely, and even asking the researcher about the best suitable action to ensure that the quality improvement plan implementation is effective for better health outcomes.

Ethics

The research is the intellectual property of the University of Witwatersrand (WITS). All processes were followed as per the Western Cape and Gauteng health institutions' policies for approvals required to access the reports. Anonymity has been maintained, and participants were asked permission to participate through an informed consent process. A confidentiality agreement between the institutions and the researcher was signed based on the institution's policies. Semi-structured interviews, questionnaires, and electronic data will be stored in a password-protected laptop and Cloud storage for two years.

Researcher positionality

The researcher is a Biomedical Technologist by profession who works in a diagnostic medical laboratory environment that conforms to different quality regulation bodies, accreditation organisations, and norms and standards. The researcher was not involved in the OHSC 2016/2017 and 2019/2020, and the PFMA 2018-19 Auditor General audits and report compilations. The researcher reviewed the Ideal checklist assessment reports from both institutions, followed by conducting semi-structured interviews with participants at an institutional level. Therefore, the positionality of the researcher was to ascertain health care quality improvement governance at an institutional level in Gauteng and Western Cape provinces.

Limitations during the research

The researcher's focus was on the quality improvement governance structure concerning audit tools and checklists, stakeholder analysis and OHSC reports. However, the OHSC has not audited both hospitals for the past four years, therefore, no review of OHSC reports was carried out. Furthermore, any other stakeholders, the health Ombudsman and the auditor general reports were also not reviewed due to the unavailability of such reports at the time of research. Quality improvement plans were requested from both hospitals. Charlotte Maxeke Johannesburg Academic Hospital had only one QIP and Groote Schuur submitted the yearly QIPs dating back to the year 2020. No other databases were explored.

The mixed method data collection enabled the researcher to do the cross-analysis, where both the audit reports and quality improvement plans were used, followed by the virtual and face-to-face semi-structured interviews. Even though the OHSC audits are to be conducted every four years, both facilities were expected to conduct an audit every year. CMJAH had four assessment reports and one quality improvement plan for the year 2023, whilst GSH had five assessment reports and four quality improvement plans. The assessment reports and improvement plans were the secondary data sources, and the primary data were the semi-structured interview reports. The research instrument's focus was on the governance component being explored, aligning it with the semi-structured interview questions, research questions being studied, and the research aims.

CHAPTER 4: PRESENTATION OF RESEARCH DATA

Hospital quality improvement

This comparative qualitative research explored how the governance structure was responding to audit recommendations concerning quality improvement by comparing Charlotte Maxeke Johannesburg Academic Hospital (CMJAH) and Groote Schuur Hospital (GSH). Furthermore, it aimed to understand what conditions result in effective quality improvement in one institution and a lack of quality improvement in another, and why the one is meeting the audit requirements and why the other is not. In addition, the research explored what systems were there for quality improvement at an institutional level, and how the institutions differ in terms of systems for quality improvement.

Quality is all about customer satisfaction and conformance to the requirements, and managers should be able to develop strategies related to improving the quality of hospital services (Hasibuan et al., 2019). Quality improvement means improvement in efficiency; however, limited human resources due to inadequate recruitment is a problem because the hospital staff may not be able to actively participate in quality improvement activities (Maphumulo & Bengu, 2019).

Hospital-based indicators are used to measure and monitor performance related to structure, processes and outcomes, and allow health decision-makers to ensure better quality services by monitoring actions by all levels involved in quality improvement (Breyer et al., 2018). During data collection, the researcher was unable to establish each hospital's indicators as those involved in quality improvement activities could not indicate their indicators at an institutional level. The inability of the participants to indicate the institution indicators was because the data was submitted to the provincial monitoring and evaluation team, with limited involvement of the participants. The GSH participant indicated that they do not have a monitoring tool with indicators, *"we do need comprehensive, suitable resources working towards those monitoring and evaluation improvement plans"*. The CMJAH participants highlighted that *"The monitoring and evaluation is done by public health registrars once a quarter".* Hence, both institutions were unable to advise or direct the researcher to the indicators in place.

The Ideal assessment report data

Audit reports and quality improvement plans, including recommendations of the audits about accountability and governance structures for quality, were analysed. The 2011 National Core Standards quality improvement governance domain highlights that managers and leaders should collaborate and be actively involved in planning and implementing the quality management and improvement programme, and staff members should participate in the QA activities of the hospital organisation programme.

The table below indicates the key criteria as per the 2011 National Core Standards

Table 4: The 2011 NCS criteria

Domain	Scope of each domain	Sub domains
Patient Rights	As per the patient rights chapter and Batho Pele principles, hospitals should ensure that patients have access, are respected and their rights upheld.	1. Respect and dignity 2. Information to patients 3. Physical access 4. Continuity of care 5. Reducing delays in care 6. Emergency care 7. Access to a package of services 8. Complaints management
Patient Safety - Clinical governance & Clinical Care	The hospital clinical care staff are to prevent and manage problems, including health care-associated infections.	1. Patient care 2. Clinical management for improved health outcomes 3. Clinical leadership 4. Clinical risk 5. Adverse events 6. Infection prevention and control
Clinical Support Services	The Clinical Support Services are to ensure the availability of medicines and efficient diagnostic and therapeutic services, and be able to monitor the efficiency of the care provided to patients.	1. Pharmaceutical services 2. Diagnostic services 3. Therapeutic and support services 4. Health technology services 5. Sterilisation services 6. Mortuary services 7. Efficiency management
Public Health	There shall be collaboration amongst health care facilities, non-	1. Population-based service planning and delivery 2. Health promotion and disease prevention 3. Disaster preparedness

	government organisations to promote health, prevent illness and reduce further complications whilst ensuring there is integrated and quality care is provided for the community, including disaster management.	4. Environmental control
Leadership and Governance	It is the responsibility of the senior management to be proactive, plan and manage risks. The hospital board, clinic committee, relevant supervisory support structures shall ensure that there is communication and shall oversee the quality improvement activities. Human resources, finances, assets and consumables, and information and records are to be managed effectively.	1. Oversight and accountability 2. Strategic management 3. Risk management 4. Quality improvement 5. Effective leadership 6. Communications and public relations
Operational Management:	There shall be oversight on the day-to-day responsibilities whilst ensuring delivery of safe and effective patient care, management of human resources, finances, assets and consumables, and of information and records.	1. Human resource management & development 2. Employee wellness 3. Financial resource management 4. Supply chain management 5. Transport and fleet management 6. Information management 7. Medical records
Facilities and Infrastructure	It is a requirement for the hospital to have clean, safe and secure physical and functional, and effective waste disposal.	1. Buildings and grounds 2. Machinery and utilities 3. Safety and security 4. Hygiene and cleanliness 5. Waste management 6. Linen and laundry 7. Food services

The criteria for the standards as per the 2011 NCS are:

1. There is a written plan for an organisation-wide quality management and improvement programme covering key areas.
2. There is a dedicated QA committee that designs and oversees the programme.
3. Medical, nursing and general managers should be familiar with the concepts and methods of QA.
4. Medical, nursing and general managers should participate in relevant QA processes.
5. Managers ensure that quality improvement teams are established and functional in all areas of the facility.
6. A training programme equips staff with the necessary skills and competencies.
7. Staff participate actively in the quality improvement teams.

Quality improvement (QI) governance is about improvement where leadership sets the direction and articulates the vision of the organisation, and this trickles down through the organisation's internal system whilst ensuring that internal and external audits are conducted regularly (Limato et al., 2019). Furthermore, SOPs should be available for the staff members involved with process indicators and activity logs to assess whether the SOP is followed accurately because the QI process needs to be systematically assessed. QI in health care is defined as a rigorous systematic process that focuses on continuous efforts and activities to achieve measurable improvement of health outcomes, system performance, and professional development, to improve community health (Limato et al., 2019). Therefore, from the Ideal assessment reports, the quality improvement governance key elements/components that were imperative to this study were extracted, and these are: governance, audit, quality, SOPs, maintenance, and improvement plan.

The April 2023 Ideal framework is structured according to the Norms and Standards Regulations applicable to different categories of health establishments. It consists of six components and nineteen regulations. It measures and has the explanatory notes adopted from the OHSC tools. The key description for the method of measurement from the framework is to check the applicable documents, patient record assessment, observation, and interviews for both the patient and the staff.

During the review of the assessment reports from each institution, it was observed that the framework scoring weight categories are Non-negotiable Vital (NNV), Vital (V), Essential (E), and Important (I) as per the Ideal Hospital Framework April 2023 version 2 that includes the

measures and explanatory notes adopted from OHSC tools. The framework further defines the compliance elements as follows:

- **Essential (E):** Very necessary (essential) elements that require resolution within a given time. These are process and structural elements that indirectly affect the quality and safety of clinical care given to patients.
- **Important (I):** Significant(important) elements that require resolution within a given time. These are process and structural elements that affect the quality of the environment in which healthcare is given to patients.
- **Non-negotiable Vital (NNV):** These are elements that can cause loss of life or a prolonged period of recovery.
- **Vital (V):** Extremely important (vital) elements that require immediate and full correction. These are elements that affect direct service delivery to and clinical care of patients without which there may be immediate and long-term adverse effects on the health of the population.

For elements without a checklist, the scoring is binary 1 or 0 where:

- Achieved/ compliant (Green): is Yes = 1 and
- Not achieved/non-compliant (Red): is No = 0

For elements with a checklist, a fractional scoring is applied:

- Achieved/ compliant (Green): NNV = 1; V ≥ 0.8; E ≥ 0.6; I ≥ 0.5
- Not achieved/non-compliant (Red): NNV <1; V < 0.8; E < 0.6; I < 0.5

The compliance framework grading is as follows:

Table 5: Ideal compliance checklist grading framework

	Grading			
Compliance status	**Non – compliant**	**Compliant**	**Compliant**	**Compliant**
Risk rating	**Unsatisfactory**	**Satisfactory**	**Good**	**Excellent**
Non – negotiable Vitals	<100 %	100 %	100 %	100 %
Vital	<60 %	60 – 69 %	70 – 79 %	≥ 80 %
Essential	<50 %	50 – 59 %	60 – 69 %	≥ 70 %

For this research, the focus was on the governance regulations that fall within the governance and human resources component. The elements that had the checklist from the governance component were: the governance structure has clear (Terms of reference) TOR, availability of the delegation of authority for the hospital's manager, and the monitoring of the hospital's adherence to the appropriate delegations of authority.

For the governance sub-component for the year 2023 assessment, the weight was under the essential category except the appointment letters for the members of the governance structure that needed to be signed by the relevant authority as per the National Health Act. The method of measurement was objective observations, the level of responsibility was at the hospital facility, and the checklists with explanatory notes for the governance element were utilised as an additional source of information. In addition to the explanatory notes, the audit, quality, SOP, improvement plan and maintenance elements without a checklist were reviewed. Below are the Ideal yearly assessment scores for both institutions.

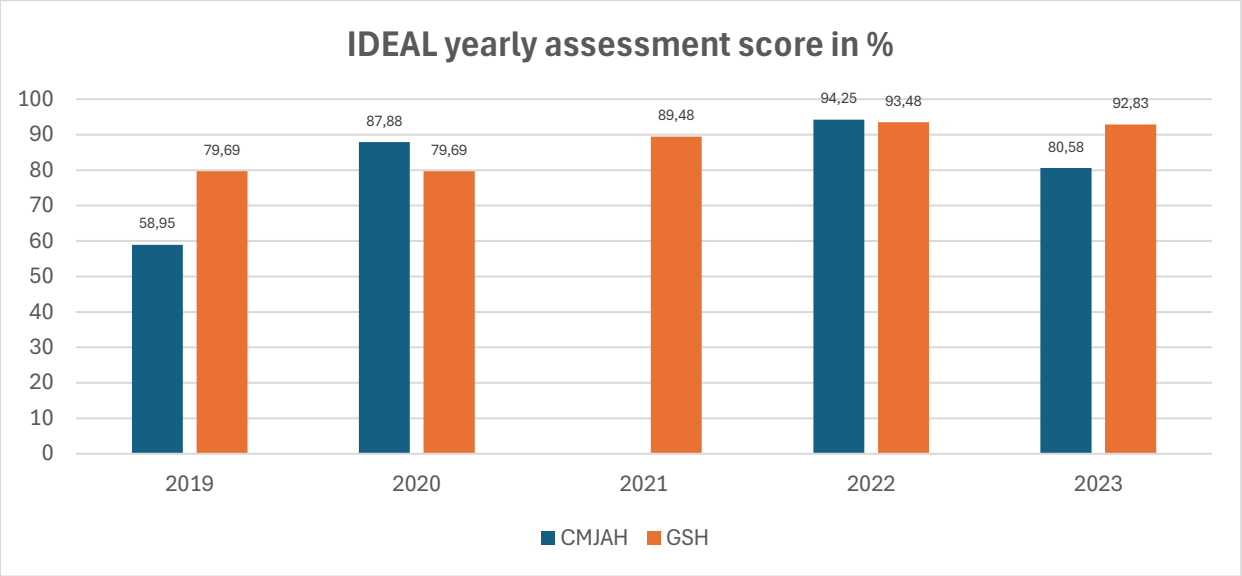

Figure 2: CMJAH and GSH yearly assessment scores

The case of Charlotte Maxeke Johannesburg Academic Hospital

CMJAH did not have quality improvement plans except for the year 2023, but presentations and training were conducted. Furthermore, in the year 2021, the hospital did not have an audit due to a fire that engulfed the section of the hospital. The non-negotiable score was not applicable in the 2019 and 2020 periods. Furthermore, the important score was not applicable

in the 2022 and 2023 periods, hence the zero scores. CMJAH's Ideal assessment scores are as follows as per the reports received:

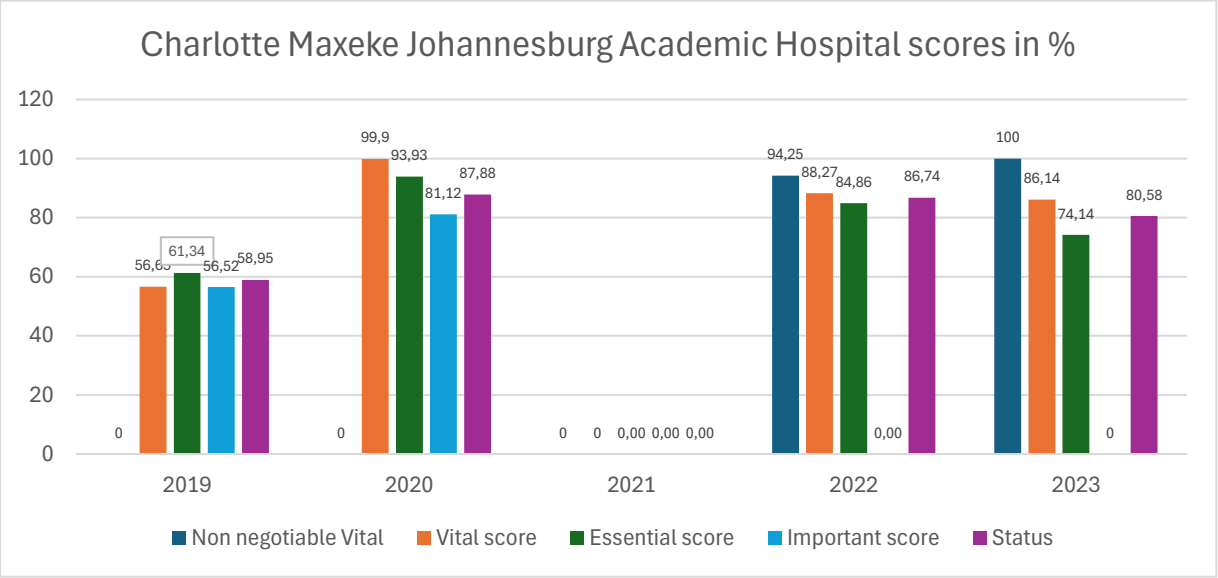

Figure 3: Charlotte Maxeke Johannesburg Academic Hospital yearly scores

Table 6: CMJAH yearly scores indicating scores applicable during the assessment

	2019	**2020**	**2022**	**2023**
Status/Score	Not achieved: 58.95%	Silver: 87.88%	86.74%	80.58%
Non-negotiable Vital	The Non-negotiable score was not applicable in this period		94.25%	100%
Vital score	56.65%	99.9%	88.27%	86.14%
Essential score	61.34%	93.93%	84.86%	74.14%
Important score	56.52%	81.12%	The important score was not applicable in this period.	

Charlotte Maxeke Johannesburg Academic Hospital audit intervals and risk assessment committees

Van Belle & Mayhew (2016) emphasise commitment to quality improvement and responsiveness, and organisational accountability as core fundamentals to ensure the regulatory process at each institution is in place. At the time of assessment in 2019, the report indicates that the hospital audit and risk committees were not effective, and there were no minutes of

audit and risk committee meetings available. The hospital did not receive a clean audit report from the Auditor General.

According to the 2020 assessment findings, clinical audits were not conducted quarterly, quality improvement plans for human resource management were not implemented, and there were quality improvement plans for non-clinical services. Again in 2020, quality improvement plans for human resource management were not implemented, and there was no improved plan developed for the mass causality drill and for addressing the results of the emergency evacuation drill.

Even though the Ideal checklist has a remedial action component, most of the items were highlighted as not applicable in the year 2022 and these were remedial action for financial findings reported, external audits, organisational risks mitigation including escalation, quality of care and remedial actions to ensure achievement of strategic targets where it had been identified that the targets may not be met. This is concerning as some of these components were under the CEO, and these components play a vital role in ensuring that the hospital can execute the decisions to ensure that there are fewer risks regarding operational requirements.

In 2023, the component that highlights the matter of unqualified or emphasis-of-matter audit results from the auditor general was marked as not applicable without further explanation.

Charlotte Maxeke Johannesburg Academic Hospital's availability of a quality improvement plan and implementation

The governance structure should ensure quality improvement activities are driven by a systematic data-driven implementation that applies specific tools and methods with the required skills, knowledge, and experiences (Oboirien et al., 2019). For the years 2019, 2020, and 2023, the clinical governance quality improvement plans were not implemented, and the quality improvement plans for human resource management were also not implemented. Other improvement plans such as the mass casualty drill were not developed, and those that need to address the results of evacuation drills were not effective.

In 2023, the terms of reference for the structure established to review quality improvement activities were partially available. The implementation of quality improvement plans was not effectively monitored. A quality improvement plan indicates corrective measures were not

taken if the targets set for waiting times were not met. Quality improvement plans were partially developed by the health care personnel.

Charlotte Maxeke Johannesburg Academic Hospital standard operating procedure adherence

Standard operating procedure adherence is an indication that quality improvement interventions will be able to improve quality as per the standard protocol, and this can be achieved by following documented standard operating procedures (Stacey et al., 2021). However, in the year 2019, this was not the case as the standard operating procedure (SOP) for managing patient records was partially adhered to. In addition to SOP adherence, several SOPS were not adhered to, namely, SOP for the safe administration of medicines; for the management and use of blood and blood products; for management of elderly, frail or patients with reduced mobility; for infection prevention and control practices, for handling linen in use, for the management of laundry, and the reactive maintenance of medical equipment was not available. Several SOPs were found not to be effective, and these are the SOP for refusal of treatment, the SOP for handover between shifts is available and the SOP for outbreak notification and response are available.

Compared to 2020, few SOPs were partial or not adhered to and these were SOPs for the safe administration of medicines is adhered to, for refusal of treatment available, for the management of laundry is adhered and for stock management. For the second year in a row, the SOP for the safe administration of medicines was partially adhered to, and this raises a flag as to if the medical personnel are equipped or is there just ignorance on their part. Furthermore, for the second year in a row there was no planned maintenance of sterilisation equipment according to the schedule and the schedule for planned maintenance of medical equipment was partially adhered to. It was also noted in the 2020 Ideal assessment report that there was no signed service level agreement per the SOP with the outsourced service provider. The planned maintenance of laundry equipment was not according to the schedule. The schedule for planned maintenance of medical equipment and maintenance for hospital vehicles is not adhered to.

Only a few SOPs were not available or not adhered to at the time of assessment in 2022. These SOPs were for ensuring that all aspects are covered, and these are accessing emergency medical transport services, contract management, and PSI reporting and learning. The assumption is that if there were so few SOPs not available or adhered to it could have been partly because of the fire that ravaged the hospital in 2021.

In 2023, concerning the terms of SOPs that cover all aspects, there were a few identified that were not adhered to. These were for the management of emergency resuscitations, for obtaining patient consent when sharing patient-identifiable information with a third party, for reducing the risk of healthcare-associated infections, for conducting risk assessments for MHCUs, and for the management of high-risk MHCUs. Furthermore, it was noted that the hospital does not comply with the SOP for obtaining consent if patient-identifiable information is shared with a third party. Planned preventive maintenance of the mechanical ventilation system has not been undertaken.

Charlotte Maxeke Johannesburg Academic Hospital stakeholders' participation

Stakeholders can assist in overcoming conflicts and find a consensus solution (Sivakumar, Almehdawe, & Kabir, 2021). Concerning stakeholder participation, there were no internal or external stakeholders identified. The hospital did not have a list of community needs as determined, there was no agenda during the meetings to indicate that community needs and progress against the operation plan were discussed, and there was no proof that the committee took part in the opening of complaints boxes according to the stipulated schedule. No signed minutes indicated that the hospital committee was informed of the progress against the facility's operational plan. Furthermore, there was no current year plan indicating the scheduled meetings, and no attendance registers showing that meetings held formed a quorum.

Charlotte Maxeke Johannesburg Academic Hospital meeting minutes of the governance structure

The effectiveness of the governance structure is determined by the availability of data, and implementation programme reports (Enticott et al., 2021). The 2019 assessment findings indicate that the minutes of hospital board meetings indicate that there were no discussions concerning external audit reports, human resources needs, equipment and supplies, and statistical data on population health indicators. Furthermore, contact details of hospital board members were not visibly displayed in the reception area. Minutes of the ward committee meeting indicate that a member of the hospital board did not give feedback at the ward committee meeting on health-related matters. CMJAH did not have a loss and theft register, and all losses and theft were not investigated.

In the year 2020, community needs were not determined by the hospital committee in the past 12 months, and no agendas indicated that community needs and progress against the operation

plan were being discussed at least twice in the past 12 months. In addition to addressing community needs, there were no minutes that indicated that complaints, compliments and suggestions were discussed at hospital committee meetings, and there was no proof that the hospital committee took part in the opening of complaints boxes according to the stipulated schedule. Furthermore, there were no contact details of hospital board members visibly displayed in the reception area. Minutes the meeting of the hospital board meetings indicate that statistical data on population health indicators were not discussed, and even external audit reports were not discussed. Even at the ward committee meetings there was no indication in the minutes that the hospital board gave feedback at the ward committee meetings on health-related matters.

For the year 2022 concerning the governance structure, minutes of meetings of the governance structure indicate that some items were not being regularly discussed and not monitored. These were external audit reports, strategic plans and annual performance plans quality of care in the hospital, organisational risks, financial reports, HR management and development reports.

At the time of the assessment in 2023, the report indicates that the minutes of meetings of the governance structure indicate that the strategic plan and/or annual performance plan of the hospital are not discussed regularly and monitored. There was no remedial action implemented to ensure the achievement of strategic targets where it had been identified that the targets may not be met.

The case of Groote Schuur Hospital

GSH has done the Ideal assessment for all the years since 2019, and only the 2019 quality improvement plan could not be located at the time of the research. The non-negotiable score was not applicable during the 2019, 2021 and 2021 periods, and the important score was not applicable during 2022 and 2023, hence these scores are indicated as zeros. GSH assessment scores are as follows:

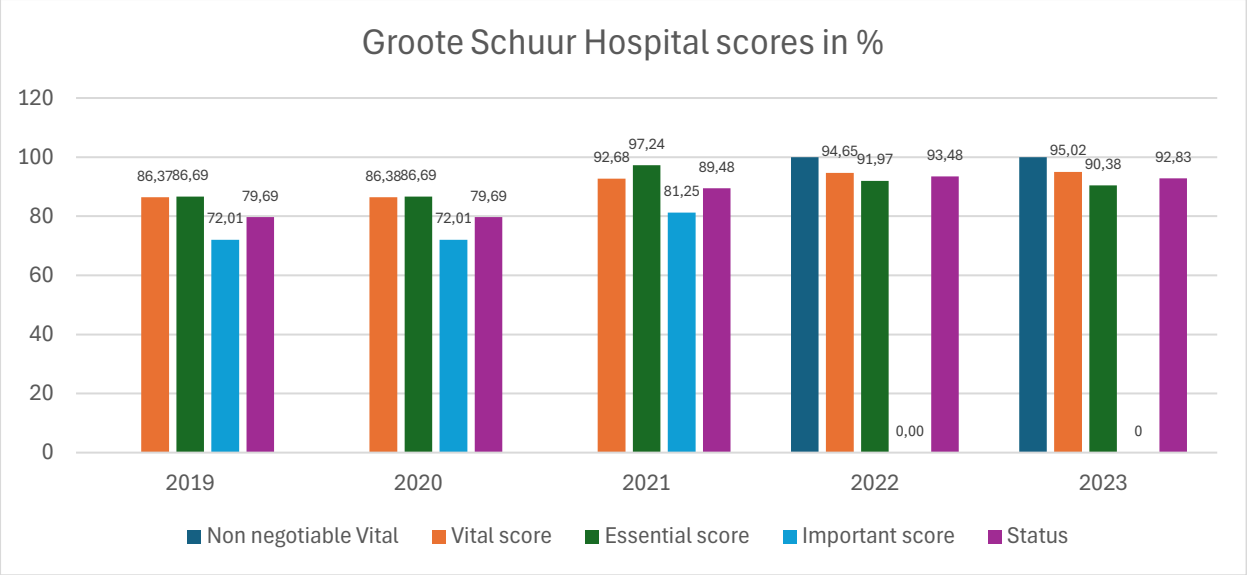

Figure 4: Groote Schuur Hospital yearly scores

Table 7: GSH yearly scores indicating scores applicable during the assessments

	2019	2020	2021	2022	2023
Status	Not achieved: 79.69%	Not achieved: 79.69%	Silver: 89.48%	93.48%	92.83%
Vital score	86.37%	86.37%	92.68%	94.65%	95.02%
Non-negotiable Vital	The non-negotiable score was not applicable in this period			100%	100%
Essential score	86.69%	86.69%	97.24%	91.97%	90.38%
Important score	72.01%	72.01%	81.25%	The important score was not applicable in this period.	

Groote Schuur Hospital audit intervals and risk assessment committees

The audit committees should ensure that processes are documented, reported, and implemented as part of an improvement plan with regular follow-up on all audit findings (Hanskamp-Sebregts et al., 2019). At the time of the assessment in 2019 at GSH as per the report, it was noted that there is no functional hospital board, national clinical audit guidelines are not

available, clinical audits are partially conducted, and there was no attendance register for orientation and training conducted in the past 12 months.

Some findings from the 2019 assessment findings were still observed in 2020. These are the unavailability of the national clinical audit guideline, and the non-functional hospital board clinical audits not being conducted quarterly.

During the 2021 assessment, few components related to the research were identified: the report indicates that there is no functional board, the clinical governance structures are not functional, and clinical audits are partially conducted quarterly.

In 2023, it was noted that remedial actions were not implemented for external audit findings, risk escalation and mitigation, financial findings, human resource management, gaps in the quality of care provided, and the remedial actions to achieve strategic targets where it has been identified that targets are not met was also not implemented.

GSH stakeholders' participation

It is the responsibility of the governance structure to ensure stakeholder participation, transparency and information management (Chanturidze & Obermann, 2016). However, this was not the case concerning stakeholder engagement in 2021 when there was no list of community needs determined by the hospital committee in the past 12 months. Furthermore, there were no agendas indicating that community needs and progress against the operation plan were discussed at least twice in the past 12 months, and no signed minutes indicating that the hospital committee was informed on the progress against the facility's operational plan at least twice in the past 12 months.

Groote Schuur Hospital meeting minutes of the governance structure

Having an accountability structure that identifies and prioritises processes is imperative (Hysong et al., 2022). Concerning meetings being conducted during the assessment period of the year 2019, it was noted that the year plan did not indicate the scheduled meetings (at least two within the next 12 months), and attendance registers did not show that meetings held formed a quorum. Furthermore, there was no indication that the hospital board member gave feedback at the ward committee meeting on health-related matters. The meeting attendance register did not indicate that meetings held formed a quorum in 2020, and there was no current year plan indicating the scheduled meetings (at least two within the next 12 months). In some

of the meetings, minutes of the ward committee meetings did not indicate that a member of the hospital board gave feedback at the ward committee meetings on health-related matters. The hospital did not have a formal agreement in place between the hospital and various government departments, and community needs were not determined by the hospital committee in the past 12 months. Furthermore, there was no agenda indicating that community needs and progress against the operation plan were discussed at least twice in the past 12 months, and no signed minutes indicating that the hospital committee was informed of the progress. In 2021, the minutes of the meeting do not indicate that the management of complaints, compliments and suggestions was discussed at hospital committee meetings. The 2023 assessment findings highlight that the minutes of meetings of the governance structure did not indicate that the external audit reports, organisational risks, financial reports, human resource management and development, and quality of care in the hospital are discussed regularly and monitored.

Groote Schuur Hospital's availability of a quality improvement plan and implementation

Quality improvement plan implementation is a change process that ensures systems are in place to achieve quality objectives (Beggi et al., 2018). In 2019, quality improvement plans were partially implemented including those for the identified environmental health risks. There was no improvement plans developed for the results of the mass causality drill, and for the results of the emergency evacuation drill. Plans that were not according to the schedule were for sterilisation equipment and maintenance of laundry equipment.

In 2020, the quality improvement plans were still partially implemented including those for the identified environmental health risks. There was no development of the improvement plan based on the results of the mass casualty and evacuation drill. There was no attendance register for orientation and training conducted in the past 12 months. In terms of maintenance of hospital equipment, the maintenance of sterilisation and laundry equipment was not according to the schedule, and the planned schedule was not adhered to.

Quality improvement plans were partially implemented including those for human resource management for the year 2021. It was also noted that there was no improvement plans developed for the results of the mass casualty and evacuation drill, and there was no schedule for planned maintenance of medical equipment.

The 2022 assessment findings indicate that the quality improvement plan did not indicate that corrective measures are taken if the targets set for waiting times are not met. Lastly in 2023, it

was noted that most quality improvement plans are not implemented. These are quality improvement on national strategic priority programmes or health initiatives, and quality improvement plans for corrective measures taken if the targets set for waiting times are not met.

Groote Schuur Hospital standard operating procedure adherence

Standard operating procedure adherence is an indication that quality improvement intervention will be able to improve quality as per the standard protocol (Stacey et al., 2021). It was also noted in the year 2019 that most of the SOPs were partially adhered to at the time of assessment and these are SOPs for managing patient records, for the management and use of blood and blood products, for refusal of treatment available, for outbreak notification and response are available, for management of elderly, frail or patients with reduced mobility, for infection prevention and control practices, and for handling linen in use. Few SOPs were not adhered to at all, namely SOP for the safe administration of medicines and management of mortal remains.

Concerning the SOP, during the 2020 assessment, the SOP for the safe administration of medicines was not adhered to. In addition, the following SOPs were partially adhered to: for the management and use of blood and blood products, for refusal of treatment, for outbreak notification and response, for management of elderly, frail or patients with reduced mobility, for infection prevention and control practices, for handling linen in use, and for the management of mortal remains. In 2022, there was only one SOP where there was non-compliance, and it was the SOP for obtaining patient consent when sharing patient-identifiable information with a third party not covering all aspects.

This research focused on quality improvement governance to ascertain if the governance structures at both institutions are ensuring compliance with health norms and standards. Compliance with health norms and standards is achieved through interventions such as audits being conducted regularly, risk assessment committees being formed with regular meetings, quality improvement plans being available and implemented, standard operating procedures being adhered to, and stakeholders participating in improvement activities (Lynn et al., 2007). Below is a table indicating the findings from both institutions as per the year of the Ideal assessment conducted for the past five years.

Table 8: Ideal assessment comparison between CMJAH and GSH

Ideal assessment report findings	Year	Charlotte Maxeke Johannesburg Academic Hospital	Groote Schuur Hospital
Audit intervals and risk assessment committees	2019	• The audit and risk committees were marked as not effective. • No minutes of audit and risk committee meetings available. • The hospital did not receive a clean audit report from the Auditor General.	• No functional hospital board. • National clinical audit guidelines were not available. • Clinical audits were partially conducted.
	2020	Clinical audits were not conducted quarterly.	• No functional hospital board. • National clinical audit guidelines were not available. • Clinical audits not conducted quarterly.
	2021	No assessment was done due to the fire incident.	• No functional board. • Clinical governance structures were not functional. • Clinical audits were partially conducted quarterly.
	2022	Remedial action components highlighted as not applicable: • remedial action for financial findings reported. • external audits. • organisational risk mitigation including escalation. • quality of care. • to ensure the achievement of strategic targets.	No findings concerning audits and risk assessments including committees for the year 2022.

	2023	• The terms of reference for the structure established to review quality improvement activities were partially available. • The matter of unqualified or emphasis-of-matter audit results from the auditor general was marked as not applicable.	There were no findings concerning audits and risk assessments including committees for the year 2023.
Availability of a quality improvement plan and implementation	2019	For the years 2019, 2020, and 2023 quality improvement plans were not implemented: • clinical governance quality improvement plan. • for human resource. The mass casualty drill improvement plan was not developed. Improvement plans to address the results of evacuation drills were not effective.	Quality improvement plans partially implemented were for the identified environmental health risks. Improvement plans not developed were: • for the results of the mass causality drill. • for the results of the emergency evacuation drill. Plans that were not according to the schedule were: • for sterilisation equipment. • for maintenance of laundry equipment.
	2020	Same as 2019	• Quality improvement plans partially implemented were for the identified environmental health risks. • The development of the improvement plan was not based on the results of the mass casualty and evacuation drill.

	2021	No assessment was done due to the fire incident.	• Quality improvement plans partially implemented were for the human resource management. • Improvement plans not developed were for the results of the mass casualty and evacuation drill. • There was no schedule for planned maintenance of medical equipment.
	2022	Quality improvement plans did not exist.	The quality improvement plan did not indicate that corrective measures were taken if the targets set for waiting times were not met.
	2023	Quality improvement plans not implemented: • clinical governance quality improvement plan. • for human resource. A quality improvement plan for the mass casualty drill was not developed. Improvement plans to address the results of evacuation drills were not effective. The implementation of quality improvement plans was not effectively monitored. A quality improvement plan indicates corrective measures were not taken if	Quality improvement plans not implemented: • for national strategic priority programmes or health initiatives. • corrective measures taken if the targets set for waiting times were not met. Remedial actions were not implemented: • for external audit findings. • risk escalation and mitigation. • financial findings. • for human resource management. • for gaps in the quality of care provided. • for strategic targets.

		the targets set for waiting times are not. Quality improvement plans were partially developed by the health care personnel. No remedial action was implemented to ensure the achievement of strategic targets.	
Standard operating procedure adherence	2019	SOP for managing patient records was partially adhered to: SOPs that were not adhered to were: • for the safe administration of medicines. • for the management and use of blood and blood products. • for management of elderly, frail or patients with reduced mobility. • for infection prevention and control practices for handling linen in use. • for the management of laundry. • and the reactive maintenance of medical equipment was not available. SOPs found not to be effective: • for refusal of treatment available.	SOPs partially adhered to: • for managing patient records. • for the management and use of blood and blood products. • for refusal of treatment available. • for outbreak notification and response. • for management of elderly, frail or patients with reduced mobility. • for infection prevention and control practices. • for handling linen in use. SOP not adhered to at all was for the safe administration of medicines and management of mortal remains.

		• for handover between shifts. • for outbreak notification and response.	
	2020	SOPs that were partially or not adhered to were: • for the safe administration of medicines. • for refusal of treatment available. • for the management of laundry. • for stock management.	SOP for the safe administration of medicines was not adhered to. SOPs partially adhered to were: • for the management and use of blood and blood products. • for refusal of treatment. • for outbreak notification and response. • for management of elderly, frail or patients with reduced mobility. • for infection prevention and control practices. • for handling linen in use. SOP for the management of mortal remains was marked as not applicable.
	2021	No assessment was done due to the fire incident.	There were no findings concerning SOP adherence for the year 2021.
	2022	A few SOPs were not available or not adhered to: • for accessing emergency medical transport services. • contract management. • patient safety incidents reporting and learning.	There was non-compliance with SOP for obtaining patient consent when sharing patient-identifiable information with a third party not covering all aspects.
	2023	A few SOPs were not adhered to and these were:	There were no findings concerning SOP adherence for the year 2023.

		• for the management of emergency resuscitations. • for obtaining patient consent when sharing patient-identifiable information with a third party. • for reducing the risk of healthcare-associated infections. • for conducting risk assessments for MHCUs • for the management of high-risk MHCUs. There was no compliance with the SOP for obtaining consent if patient-identifiable information is shared with a third party.	
Stakeholders' participation	2019	For the years 2019, 2020, 2021, 2022 and 2023 at CMJAH, there were: • No internal or external stakeholders identified. • No list of community needs determined by the hospital committee. • No agenda during the meetings indicated that community needs and progress against the operation plan were discussed.	There were no findings concerning stakeholders' participation for the year 2019
	2020		• No formal agreement in place between the hospital and various government departments. • Community needs were not determined by the hospital committee. • No agenda indicated that community needs and progress against the operation plan were discussed. • No signed minutes indicating that the hospital committee was

		• No proof that the committee took part in the opening of complaints boxes. • No current year plan indicating the scheduled meetings. • No attendance registers to show that meetings held formed a quorum.	informed of the progress against the operational plan.
	2021		• No list of community needs determined by the hospital committee. • No agenda during the meetings indicating that community needs and progress against the operation plan were discussed.
	2022		There were no findings concerning stakeholders' participation for the year 2022.
	2023		There were no findings concerning stakeholders' participation for the year 2023.
Meeting minutes of the governance structure	2019	Minutes of the hospital board meetings indicate that there were no discussions concerning: • external audit reports. • human resources need. • equipment and supplies. • statistical data on population health indicators. • health-related matters feedback by the hospital board member. Contact details of hospital board members were not visibly displayed in the reception area.	• No functional hospital board. • The year plan did not indicate the scheduled meetings. • Attendance registers did not show that meetings held formed a quorum. • No feedback at the ward committee meeting on health-related matters.

		There was no loss and theft register, and all losses and thefts were not investigated.	
	2020	Contact details of hospital board members were not visibly displayed in the reception area. Minutes of the hospital board meetings indicate that there were no discussions concerning: • statistical data on population health indicators. • external audit reports. • hospital board feedback on health-related matters. • compliments, complaints and suggestions. • facility operation plan.	• The attendance register did not indicate that meetings held formed a quorum. • The year plan did not indicate the scheduled meetings. • No feedback at the ward committee meeting on health-related matters. • No signed minutes indicating that the hospital committee was informed of the progress against the facility's operational plan.
	2021	No assessment was done due to the fire incident.	Meeting minutes indicated that the management of complaints, compliments and suggestions were not discussed at hospital committee meetings.
	2022	Meeting minutes indicate that some items were not being regularly discussed and not monitored: • external audit reports. • strategic plan. • annual performance plan. • quality of care in the hospital. • organisational risks. • financial reports. • human resource management.	There were no findings concerning governance structure meeting minutes for the year 2022.

		• development reports.	
	2023	Meeting minutes indicate that the strategic plan and/or annual performance plan were not discussed regularly and monitored.	Meeting minutes of meetings indicated that the following items were not regularly discussed and monitored: • external audit reports. • organisational risks. • financial reports. • human resource management and development. • quality of care. There were no signed minutes indicating that the hospital committee was informed of the progress against the facility's operational plan.

Participant interviews feedback from Charlotte Maxeke Johannesburg Academic Hospital and Groote Schuur Hospital

Meeting quality improvement objectives and systems

Participant X from CMJAH indicated that "*processes undertaken to meet objectives are at an operational and managerial level together with quality assurance coordinators"*. Furthermore, there is an independent verification done quarterly and random visits by Public Health Registers (PHR). It was further highlighted that CMJAH can identify gaps even before the next assessment. CMJAH Assessments were done in all areas in the year 2022 in preparation for readiness for opening before patients could come in, a quality improvement plan was developed, the staff was engaged regularly, and training was conducted, and this resulted in the improvement in 2022/2023 scores.

GSH follows provincial objectives because the QA department does not have their own objectives in place from a quality assurance department. Participant P indicated that *"National government guide us on what we need to check, what needs to be assessed, and what compliance needs to happen"*. Participant P indicated that the challenge with National

guidelines is that they are a one-size-fits-all approach and guidelines are not tailored as we would like it to be for our setting because services vary compared to the district hospitals and the primary health care services. What works at the other institution does not mean it will work at our institution, especially if resources are limited. Participant P indicated that the national government does not have a true understanding of what's happening on the ground as:

> "*they put these policies and beautiful layouts on paper in place but we're unable to track in real time because there are so many areas and there is staff shortage. This contributes to how we move forward in terms of the objectives of the quality improvement being met. We have many departments and many people participating in many of our compliance tasks*".

If the hospital departments are not giving feedback, the QA department might not know if objectives are being met or not until the next audit due to the size of the hospital, and this sometimes derails the objectives because people are not aligned with improvement plans. However, there is siloed output improvement that still happens in other departments. For the objectives that are being met, it is through communication and good teamwork with support from the QA department.

Targets set congruent with state objectives

CMJAH participants indicated that different departments may score differently, and departments are working towards quality improvement plans even though they were non-existent for the past years until the development of the 2023 QIPs. There are challenges in implementing the QIPs because of interdependency on the infrastructures and resources required for the set key performance areas.

GSH participants indicated that the compliance targets are set by the national government and monitored by the provincial office, and then an audit will be carried out based on those targets even though there will be nuances within the specific services regarding whether something can be implemented or not. Austerity measures have been influencing the inadequate quality improvement implementation due to limited funding required to meet audit expectations, and some are not met at all. Even though the resources are limited for quality improvement implementation, the hospital monitoring and evaluation (M&E) team which is called the data team can monitor and give feedback at the M&E quarterly meetings. During the meetings,

plans and processes in place are discussed on how to reach targets that are incongruent with the provincial and national objectives.

Governance accountability, supervision meeting structure

CMJAH has a dedicated quality improvement committee that meets once a month to review the quality improvement plan to verify if objectives are met or not, and this committee is called the Functional Business Unit (FBU). The unit is supported by the QA department, and it ensures accountability at each department. Furthermore, the FBU will consolidate their quality improvement plans, and send them to their managers. *"It is the responsibility of the department heads to ensure that the information is cascaded to the junior staff,"* said Participant A. The managers review it, and then it goes to the QA department for capturing and then it will be shared with the executive management. Every assessment, survey, and review are reported quarterly to the nursing and operational managers of the wards and the CEO. In addition, there is an extended management review meeting that also oversees the quality improvement submissions. In the meeting, the QA representative is given a slot to discuss all the patient survey incidents that happened and the complaints to monitor progress in closing all the gaps. The QA department shares the guidelines and standard operating procedures, and performance is monitored through the quality improvement plan using graphical presentations.

At GSH there is a quality assurance coordinating committee that ensures accountability, and it is called the Pavilion. The committee includes the board of trustees, the executive manager, the QA manager, the CEO, medical managers from each department, the head of nursing and superintendents with assistant and deputy directors. This committee meets to discuss gaps, heads of department from non-clinical areas, and everything related to quality is discussed at that forum. To ensure transparency, the head of the board is also part of the committee because he/she represent the community and follow up on audit-related issues on a quarter. Furthermore, complaints and compliments, patient safety incidents and anything related to quality are presented at that meeting. If the board notices an issue or raises a concern, they would have to answer to the pavilion. According to Participant MM, *"Just because we do not have a tracking system it does not mean that nobody is being held accountable."* The information dissemination of QI happens at the executive level, at the quality assurance forum meetings, and it will also happen departmentally, depending on where there is a need to touch base within the department. Participant P highlighted that *"the QA is not only a clinical output, but it also looks out at the whole hospital and the output of good clinical governance, good*

patient care, good service in terms of support services, so the whole kind of hospital is involved with QA." Therefore, the QA department does a lot of lateral management across as quality improvement is mandated at all levels, but the support might not be that great because it is sometimes difficult to manage non-clinical areas as issues arise through the governance process in terms of how quality assurance fits into the hospital structure.

Governance structure ensuring decision making, including investigation

The CMJAH QA does not have authority over any department except for their department. Clinical managers, the nurse manager and the CEO are the people who have the authority to deal with non-compliance as it is a consequence management aspect. Management gets an opportunity to make decisions in such a way that it would prevent issues of non-compliance from recurring. The responsibility of QA is to alert those three categories of managers in reporting performance by identifying areas of improvement, and the consequence management comes from the office of the CEO, the office of the clinical manager or the office of the nurse manager. Furthermore, the QA is mainly responsible for coordination, reporting, conducting the required assessments, collating the information, reporting on the information, creating awareness, assisting with developing quality improvement plans, and assisting managers in ensuring that they meet their targets.

At GSH, *"everybody from a different pavilion is involved, and with that in mind, there is evidence of teamwork. This was influenced by the memo that clearly states that quality is everyone's business, and everybody sits in the quality improvement meeting,"* said Participant P. Even though the CEO does not attend the meetings, feedback is provided to the CEO to ensure that everybody is aware of the challenges and working together towards those challenges in collaboration. Support comes in many ways, and there is a collaborative effort between the QA department and that specific department or whole unit. If there is no progress in QIP after assistance from the QA department, then it would be important to notify the senior and the executive manager. This is to ensure that the management is overseeing that improvements are being implemented based on the gaps noted through the improvement process. There are regular follow-ups with executive management to ensure collaboration and resource utilisation considering the number of patients being attended to by various departments. *"There is often a misconception that QA is meant to do the changes on their own and there is a need that necessitates attention to do quality improvement outputs and managers to enforce workers to carry out the QIP activities,"* according to Participant P. QA coordinates

the process, creates the platform for discussion to take place, and supports working towards the improvement plan. That is how the QA department positions itself within the health care service.

Governance framework with a standardised tool for tracking and reporting performance

CMJAH standardisation is governed by structures, policies, and the provincial office where we report findings. There is enforcement of standardisation; for example, if a department is not compliant in reporting, they would have to write a report, because, if there is something, it is supposed to be reported. There is a time frame allocated and if not met, then that department would have to write a report to say why it was not met, if it is either targets or matters arising from the department. The monitoring and evaluation are done by public health registrars once a quarter. They will take the quality improvement plan and go to the various areas to check whether they have implemented activities or not. The registrars look for evidence thereof and report back to QA on progress made at each department, and this is a cyclic activity. If there is non-compliance, the department should report why they are not compliant. The QA send reminders to departments to send reports, but does not have a standardised tool for tracking and reporting performance, and many just send reports. *"It is mostly the clinical heads that are familiar with the QIPs, and other heads do not quite understand, and then the clinical heads are there to advise them,"* said Participant XM.

To ensure standardisation at GSH, the audit guidelines are translated into the hospital processes because the guidelines are a one-size-fits-all approach. The translation into internal processes is to ensure that the flow of the processes is augmented to change and fit into the hospital settings to achieve the expected outcomes. This is managed through the robust coordination of practices where agility is needed to meet expectations and needs versus what the guidelines expect. This is done to avoid setting the hospital up for failure, and this is achieved through the documented communication structure supported by an open-door policy at QA departments, as facilities are different. Participant XX indicated that *"It is difficult and not easy for the QA department to track and monitor progress at a departmental level as each department is running in silo concerning the quality improvement."* However, the QA relies on the M&E team to monitor progress, and there are quarterly meetings to discuss the progress. A gap has been noticed as some of the gaps at a department level are only found during the official audits and the QA department does not have an actual monitoring tool and does not know how to

monitor but is putting something in place to track as they want all quality improvement plans or projects that are running to be reported to the QA department. Sometimes the QA department also utilises the complaints and suggestions to monitor progress and relies on the feedback if only provided by the department. Some departments do not provide feedback, and this makes it difficult to monitor because we do not have a tracking system to monitor and evaluate problems. The QA department also adapts from the QA forum that meets every quarter, where they get the information from the exact management through discussions, but it also depends on what is reported coming into the office.

Service planning, monitoring, evaluation and meetings

During the interviews, it was observed that both QA departments do not have monitoring and evaluation tools that can track progress in real time. It was further indicated that some of the quality improvement findings can be noticed during the audits, whilst they could have been resolved before any official audits. The quality improvement plans are also not updated in real-time as other departments take time to update, and this is attributed to the limited human resources.

In terms of M&E at CMJAH, the quality improvement activities are monitored and evaluated by the GDOH, the hospital board, the exco, the extended management committee and then the functional business units. The QA department shares the guidelines and the standard procedure with the hospital team to ensure monthly monitoring, depending on what is being reported. Compliance performance is monitored through the quality improvement plan, and the information is submitted to the QA where it is populated in the QIP spreadsheet for tracking purposes to indicate who has submitted or not submitted, and the non-submissions are highlighted in yellow. The team is assisted in improvement implementation through weekly reminders, and the heads of departments are made aware by graphical representations. Should there be a deviation in compliance, it is noted in writing to state the reasons and the planned preventative action and submitted to the provincial office.

GSH compliance tasks are done by utilising the assessment and audit tools. Data is captured and extrapolated to indicate where the gaps are, and where improvement is needed. The information is then shared on the QA forum where various departments are represented. The forum collaboratively looks at the risks and indicates the mitigation to eliminate the risks. In addition to forum meetings, the QA department does regular walkabouts to observe if changes are being implemented or not.

Monitoring and evaluation: Data collection tools and processes

CMJAH make use of the OHSC regulatory central hospital inspection tool version one for health care quality management as an internal assessment tool. The assessment checklist focuses on health care quality management, with domains such as user rights, clinical governance and clinical care. The findings are then captured, and a quality improvement plan is generated for the areas that did not comply with the standard.

GSH make use of the Ideal checklist as an internal assessment tool and the information is captured on the Ideal national database. The survey tools are also used; however, it is difficult to place ownership on somebody to carry out that quality improvement plan. For example, the patient experience of care *"does not break down for this big institution, it cannot tell me where my problem is, is my problem in the surgical ward, is my problem in the medical ward, because it looks at the hospital as a whole,"* stated participant XX.

Monitoring and evaluation: Complaints, compliments and suggestion management

Complaints and suggestions are strictly confidential because the hospital is patient focused. The CMJAH allow freedom of expression without victimisation, and it is encouraged to report complaints and make suggestions anonymously. For complaints, there will be a meeting that is patient-focused to ensure that they are assisted, and this is done through the patient safety incident. Patients who are not happy with the outcome of the meetings are encouraged to seek help outside the hospital organisation through civic organisations or the legal route.

GSH has an open-door policy to ensure that challenges are resolved before they become complaints, and the compliance programmes elicit the information. The complaints, compliments, suggestions and process are done through the patient experience of care service and waiting times survey processes. After the surveys, the outcome will be displayed on the walls and notice boards so that the public is able to see the outcomes. For specific individual incidences, the feedback is done through the investigation channels that took place and via email or telephonic correspondence.

Stakeholder participation and identification

At CMJAH, the public participates in quality improvement initiatives through surveys such as the patient experience, the daily patient observation survey, and the patient safety incidents.

There is further correspondence requesting information from section 27A, human rights organisations that do not get involved in the quality improvement initiatives. In addition, there was a survey done using the DHIS II tool where 1005 patients participated, and students went to different wards/and or outpatient areas and interviewed patients. The information was captured on the DHIS system, and the feedback was sent by the provincial office back to the hospital to see the performance. Then QIPs were developed for areas that did not perform well. Last year the hospital failed. The patient experience of care questions is based on ministerial priorities like access to care, availability of medicine, patient safety and security. If there is a compliant statement from the patient's experience of care, a quality improvement initiative will be developed, and the patient is encouraged to speak about other implementations of the QIP assessment based on the undesirable results of the incidence. Other stakeholders who participate in quality improvement are the heads of departments, QA managers or coordinators, and operational and assistance managers as well.

At GSH there is an open-door policy where the public is encouraged to make suggestions on areas of improvement, and the desired outcome. For example, the patients do not understand that the hospital also relies on other government non-health departments, Participant XA indicated that,

> *"if the lights are not working, they would come and ask why the lights are not working, why don't you fix it, but they don't understand that the lights, lifts don't belong to us just because they're in our building. It belongs to the Department of Public Works, so they will say they know of somebody that can handle that maybe a technician to come in and then they might suggest."*

Participant X has indicated that GSH has started "*a new thing yesterday with the community"* where the community is now providing feedback through a listening forum where the complainants are invited to come and state their story to assist in improving the quality of care. *"The external stakeholders include the hospital board members, the public are probably the biggest role player because they are the ones on whom audits are conducted, and they are the ones about whom incidents are reported if they happen",* says Participant XY. They are the ones who complain and bring issues that require attention to the QA department. Without public participation, the hospital might have a poor matrix in terms of quality improvement. Participant XY indicated that *"the service is not for ourselves, we have the service for the public, the public voice in our compliance tool it comes quite strong"* to ensure better outcomes

in waiting time experience and incidences. Surveys are done where specific questions are asked, but, due to limited human resources, it is not possible to do surveys regularly. The hospital utilises various government databases for compliance reporting: these are DHIS, Senjani, and the Ideal hospital portal. After capturing and submissions, notifications are sent to the provincial office and CEO. The Ideal hospital checklist is a prompt information management system. The data review outcomes are communicated at the quality assurance forum meetings, where the data is analysed and discussed through graphical presentations indicating the root causes, and then QIPs are developed.

Transparency and information management

CMJAH maintains that the transparency related to data, the performance review is managed by the public health registers. Information management and transparency are ensured by reviewing the quality improvement plan for each area with the relevant team members to ensure understanding and expectations.

The information management unit at GSH monitors the quality improvement data of the hospital, and the QA data is not put on an internal database but on a national database. To ensure transparency, feedback is provided to the board of trustees, and it also attends to quality assurance and forum meetings every quarter. The information management team has access to data, and it is monitored by the monitoring and evaluation (M&E) team, which is based at a provincial level. Therefore, monitoring does not happen in real-time, and hence the QA sometimes becomes aware of departmental issues only during the official audit. There are meetings held between the complainant and the hospital team where patients are encouraged to speak up openly, and the outcome will be displayed on the boards to ensure transparency.

Financial management implications: Resource utilisation, teamwork and performance behaviour

Financial management implications observed were that there were no quality improvement plans for human resources required to implement quality improvement. This was observed when the CMJAH participant XM indicated that they had to train all levels of management to ensure and create awareness and understanding of what is required. The participant XM further indicated that *"the people who were responsible for assessment did not have a clear understanding of what is required for assessments and had no background knowledge of what they were assessing, and there was no knowledge transfer at a departmental level"*. The

assessment was done from November 2019 to February 2020, and since then the assessment scores have improved. Even though training has been conducted, the issue of performance behaviour is persistent as the participants do not think CMJAH is at a point where it is sinking in and

> *"I'm saying this on a broad spectrum not just looking at quality improvement, I think there is more uptake and understanding now, it could be better as it's not where I thought it would be at this point, but it's much better than what it was in 2019-2020. There were areas where it was needed to go over and over to fix issues, and "some of the things are beyond us"* said Participant XM.

Even though human resources are limited at CMJAH, there is evidence of teamwork as departments would submit their QIP and somebody is monitoring the implementations. Before assessments, the monitoring team should be able to pick up if there was no implementation in certain areas; however, in most cases, it is not possible. For example, *"There was an auditor general audit, and they found one of the findings where the non-negotiable trolleys were not 100%, but we scored 100% when we were doing a self-assessment"* claimed Participant XA.

At CMJAH, if you are an operational manager, the question of a quality improvement plan and patient incidents is part and parcel of the interview question. When you are in the ward you must be familiar with the PSI, how to write it, and how to deal with complaints. The operational manager of the ward is the one who is filling up the form for PSI, and the assistant manager is the one who is coming out with the closure of the PSI, so their roles are known to them from the start when they take the job. Participant XA indicated that *"most of the time the people who are coming to this office to report the PSI are the operational managers, anybody who's coming here to report and the assistant manager is the one that is playing a role of closing that PSI".* The operational managers ensure that a meeting is held in the ward to discuss incidents, and all the staff in the ward must come up with a QIP. For instance, why did this patient fall, why are these patients falling in the ward, what can we improve, what can we do better? When you read their PSI, you'll see that they've implemented some structures to prevent those PSI. That's how I understand it.

> *"Like you said if they had asked someone to write it, for instance, if I'm assisting xxx in writing a QIP and/or report, I would write that I compiled the report, but my manager would have to go through it and approve it. So, it was never like going to HR and saying*

I'm going to assist you, but you will obviously have to say compiled by and the signature, and then xxx would have to approve it" stated Participant XM.

GSH also indicated that the financial implications have been attributed to limited human resources, for instance, it is difficult to train both the day and night team as there is not enough staff, and there will be a need to cover the ward. The patient safety incidence surveys have highlighted that the root cause of the incidences is the limited human resources required, even though most of the staff are trained in quality or with health norms and standards, so it would be difficult to monitor incidences happening in real-time. Participants further highlighted that with limited human resources, it is very difficult to place ownership, and for somebody to follow through and ensure that QIP gaps are closed. Furthermore, there will be people who do not do the work, they do not think about change, and they do not work towards filling the gaps noted in the quality improvement plans, and that is a different conversation that needs to be had. That conversation needs to happen with the executive manager, and even at that point if the executive manager is unable to enforce change, then it goes back to the CEO. The quality assurance manager is managed by the CEO so that there is transparency in the processes put in place. This is the formula and the communication method, and it is still not working. Then it lies with the CEO who now needs to provide direction in terms of changing the not achieved to achieved. It is important to follow through the processes to ensure a collaborative, cohesive level of input, so it is important to foster good relationships in the most tangible ways.

"The difficulty is not deliberate but due to time constraints as one person may be expected to cover five areas. The challenge is that you need to keep on motivating or maybe wait for the OHSC or the Auditor General to come audit, and when audit findings are published that is when people start to initiate the recruitment process" (Participant XX).

Audit framework that ensures meeting audit requirements and the risk committees

At CMJAH each department manager is to ensure that internal audits have been conducted within the department. In addition to internal audits, there is a peer review activity where departments assess each other. After the audit activities, the quality improvement plans will be drafted and everyone who participated in the audits is allowed to contribute to the improvement inputs. The information will be reviewed by the QA department before being accepted as final findings. CMJAH has not been audited by the OHSC for the past four years, but it is the Auditor

General who audited the facility in the presence of the QA department. Some of the findings that were observed by the AG were scored as 100% by the department, and this indicates that some of the audit information being reported during the internal audit is inaccurate.

The OHSC has not audited the GSH facility for the past four years. The audit tools are being redesigned and edited due to one more of the differences within the services that provide health care. The participant XY highlighted that the GSH QA department also sits in during the audit when needed and participates in the audit report review. The departments cross-audit each other, teamed up in pairs from different departments, and conducted by two opposite departments auditing an area, and then there would be a check and a review for that audit. When something is saying 'not achieved' it could be a true reflection or needs to be thoroughly commented on, or investigated, and in other instances is not applicable in that setting. Audit findings will be discussed with the executive body in meetings, and requests to ensure compliance, feedback and gap closure to various departments will be made. It has been observed that external barriers such as austerity measures put in place do have an impact on audit outcomes because facilities are expected to scale down on goods and services, consumables and in staffing. This is attributed to the guidelines and policies taking precedence in terms of governance. Due to limited resources, some findings will still be noted during the Ideal audit because there are no resources to ensure that gaps are closed in real-time.

It is a concern why both facilities have not been audited by the OHSC for the past four years, considering the OHSC mandate, and when CMJAH is using their tool as an internal audit tool. How will both hospitals reach or sustain their objectives to ensure a better quality of care?

Quality improvement governance plans, systems, processes and structures

CMJAH was previously not in line with the prescripts from national guidelines, and there was no governance structure to ensure that operations were as per the principles of the guidelines. A quality improvement strategy was implemented and there have been improvements since implementation. The portfolio dictates a quality improvement statement, and the terms of reference indicate the statement of intent. *"There is a hospital vision tied to a strategic one, there are quality improvement committees that discuss complaints whether complaints are PSI for results for ideal and where to implement and how to implement them,"* said Participant XM. Each department must be familiar with their quality improvement plan depending on where they are failing.

Current systems in place at CMJAH are assessments and surveys to determine the areas that require quality improvement. In addition, there are functional business units that oversee quality improvement activities, there are complaints and suggestions processes, and safety incidents that happen at a service level. Every assessment, survey, and review are reported every quarter and reporting is also done monthly to the CEO. Quality improvement plans will be generated and shared with all levels of staff from the executive going through to the extended management, the hospital board and essentially down to all levels of staff by the managers in their relevant areas. It is expected that line managers engage with their staff to plan on how to close the identified gaps. All departments are given 20 days to report their inputs into the quality improvement plan that is consolidated by the QA department. However, CMJAH did not have quality improvement plans before the year 2023, and it was difficult for the researcher to ascertain which plans they are referring to as only QIP was submitted for the study.

GSH does not have a process in place to do the pre-assessments in preparation for the main audit; however, departments audit each other throughout the year. There is a quality improvement plan covering each area, and there is one consolidated QIP that looks at complex PSIs. At GSH, according to the systems in place, quality assurance is a statutory requirement under the OHSC regulation. Certain tasks are carried out concerning the national government-prescribed hospitals that also feed the Ideal hospital. There are other systems in place like the patient of care service, patient waiting time assessments, and ideal hospital assessment that prepare for the OHSC audits that happen, but it has been quite some time since the OHSC audits. The national guidelines are translated into GSH strategies to determine the assessment needs and planning for audits that need to happen as per the schedule. A quality improvement statement is mandated at all levels, the CEO determines the hospital structure, and QA reports directly to the CEO to ensure support and transparency in decision making.

The current systems in place at GSH are the Pavilion that oversees the quality improvement activities, yearly quality improvement plans running in each department, surveys, an open door policy for complaints and suggestions. There are monthly, quarterly and ad hoc meetings conducted to discuss the quality improvement activities and regular follow-ups through feedback mechanisms in place. If there is no improvement, the QA will step in and assist the department in closing the gaps. GSH has quality improvement plans readily available that serve as reference material for future audits, and this assists some departments in solving some issues without a hassle. However, even though the QIPs are in place and readily available, it is a challenge to monitor the systems in place because each department is busy with its projects and

there are always immediate problems that deter the QA from tracking the progress in real-time due to the unavailability of adequate human resources.

Quality improvement committee

There is a dedicated quality improvement committee, which is the functional business unit quality improvement committee that consists of the head of departments, nursing and clinical managers, and the secretary for the FBU area. This committee meets once a month, and the hospital has different FBU, and each of the FBU members sits in a monthly meeting to review their quality improvement plan activities and whether they met their objectives or not. The terms of reference (TOR) available are for the complaints and quality improvement committees.

The GSH Pavilion is the committee that oversees and discusses quality improvement activities. There is also a provincial monitoring evaluation committee that consists of coordinators and quality assurance managers from various hospitals. There is also a Metro service that feeds into the provincial structure. GSH feeds directly into the provincial structure because of the size of the hospital, so, at the provincial level, you will have CEOs, operational officers, superintendent or director general. All these people will be there, and then you provide feedback at a high level, and information management is also there to look at targets and set objectives. In addition to the committees, daily morning huddle meetings are held, depending on the need. This is where the governance structure is at every point of service.

Availability of improvement plans

CMJAH has the terms of reference for the quality improvement planning committee and that is aligned with the functional business unit system. There is a governance structure specifically for managing quality improvement. The overall quality improvement available is for the year 2022/2023, which is specifically referring to the compliance assessment results and performance. All activities in quality assurance require a monthly quality improvement plan, and the managers put together a quality improvement plan for the next month to ensure that there is no recurrence. The quality improvement plan is a standardised tool that is electronically generated as you enter the assessment feedback from the tools that would have been submitted to you indicating the areas of non-compliance. It indicates the time frame, and the person responsible for taking accountability, and there is also a review portion of when they would go back to check whether they have applied those activities or have completed or need to deviate.

The 2011 NCS is clear about having a written plan for quality management and improvement programmes covering all key areas. The CMJAH only had one quality improvement plan. The implementation monitoring is supposed to be done regularly. However, it is not done due to limited resources as the service area in this hospital is huge. There is a training unit called the CET, and training is done in and outside of the hospital, and it ranges from stress management to staff attitude training. Internal training happens every Tuesday and Thursday, and it is on a different topic each time. The training is for the whole staff, depending on the need and nature of the training. These trainings assist in understanding the ethical codes, and remedial actions on current issues.

GSH does have an integrated quality improvement plan that covers all areas; however, it is not easy for the QA department to monitor due to the size of the hospital. Therefore, there is a need for comprehensive, suitable resources working towards those monitoring and evaluation improvement plans because compliance is important, *"but I think what is more important is having a strong robust approach to how we work with quality improvement plans"* stated Participant XY. Participant XM indicated that *"It is difficult and not easy for the QA department to track and monitor progress at a departmental level as each department is running in silo concerning the quality improvement."* However, the QA relies on the M&E team to monitor progress, and there are quarterly meetings to discuss the progress. A problem has been noticed as some of the gaps at a department level are only found during the official audits and the QA department does not have an actual monitoring tool and does not know how to monitor but is putting something in place to track as they want all quality improvement plans or projects that are running to be reported to QA department. *"The difficulty is not deliberate but due to time constraints as one person may be expected to cover 5 areas. The challenge is that you need to keep on motivating or maybe wait for the OHSC or the Auditor General to come audit, and when audit findings are published that is when people start to initiate the recruitment process*" (Participant XY).

Effective or lack of quality improvement at an institutional level

Participant XM indicated that

> "*I think there has to be adequate knowledge, understanding of the quality improvement process, a determination that there is a requirement for quality improvement, participation by all levels of staff in the institution towards quality improvement, and*

ownership in terms of employees understanding how they feed into the quality improvement process"

because in 2019 the score was 59%. CMJAH scores improved after a series of training in the Ideal assessment checklist, as most people did not understand compliance requirements about health norms and standards. Participant XM indicated that *"It is mostly the clinical heads that are familiar with the QIPs, and other heads do not quite understand and then the clinical heads are there to advise them."* At CMJAH it was indicated that the quality improvement plans should ideally be completed within 20 days of the result being publicised; however, this was not the case on the quality improvement plan submitted for research as there was no update for more than four months. Even though the CMJAH quality improvement plans indicated that there were plans to investigate, it was not clear how the investigations would be carried out, it was not updated yet, and this raises questions on how updates are often conducted. In addition, CMJAH the 2023 quality improvement plan indicated that minimal meetings were held, and the results field on the quality improvement was left blank.

GSH follows the national guidelines, but *"I think it is really important for conditions of quality improvement if there are strong workable guidelines for us to guide the process of improvement and creates uniformity across the board",* said Participant XY. Good team cohesion supported by a central body at a hospital level or a central unit that oversees the implementation of QIP does lead to compliance with health norms and standards. GSH does not have a process in place to do the pre-assessments in preparation for the main audit, but departments audit each other throughout the year, there is a quality improvement plan covering each area, and there is one consolidated QIP that looks at complex PSIs. All elements in the GSH quality improvement plans did not indicate the activity to be undertaken, by whom, when and the results achieved, as all these fields were blank on the QIPs. GSH quality improvement plans for the year 2021 further supported that there is no functional hospital board and no formal appointments, quality improvement plans are not implemented, and most fields were blank where it was supposed to be indicated the activity to be undertaken by whom, when and the results outcomes. Below is a summary of participants' feedback from hospital institutions:

Table 9: Participants' feedback summary from CMJAH and GSH

Participants' interview feedback	**Charlotte Maxeke Johannesburg Academic Hospital**	**Groote Schuur Hospital**

Meeting quality improvement objectives and systems	• There is an independent verification done quarterly, and random visits by the public health registers.	• The hospital follows the national objectives. • Sometimes it is not possible for the QA to know if objectives are being met or not due to siloed improvement output.
Targets set congruent with state objectives	• There were no targets set, and the development of quality improvement plans was done in the year 2023. • Challenges in implementing the quality improvement plans are due to the interdependency on the infrastructures and resources required for the set key performance areas.	• Targets are set by the national government and monitored by the provincial office. • Austerity measures had a negative impact, leading to inadequate quality improvement implementation, and some targets were not met at all. • Plans and processes are in place, and discussed on how to reach targets that are incongruent with the provincial and national objectives.
Governance accountability supervision meeting structure	• There is a dedicated quality improvement committee called the functional business unit, which meets once a month to review the quality improvement plan. • The unit is supported by the QA department, and it ensures accountability in each department.	• There is a quality assurance coordinating committee that ensures accountability, and it is called the Pavilion. • The committee includes the board of trustees, the executive manager, the QA manager, the CEO, medical managers from each department, the head of nursing and superintendents

	• Assessments, surveys, and reviews are reported quarterly to the nursing and operational managers of the wards, and the CEO. • There is also an extended management review meeting that oversees the quality improvement submissions. • The QA department shares the guidelines and standard operating procedures, and performance is monitored through the quality improvement plan, until recently.	with assistant and deputy directors. • The head of the board is also part of the committee because he represents the community and follows up on audit-related issues, and this is to ensure transparency. • The information dissemination of quality improvement happens at the executive level, at the quality assurance forum meetings, and the departments. • The QA department does a lot of lateral management across as quality improvement is mandated at all levels; with limited support, it is difficult to manage non-clinical areas in terms of how quality assurance fits into the hospital structure.
Governance structure ensuring decision making including investigation	• The QA does not have authority over any department except for their department. • Clinical nurse manager, and the CEO have the authority to deal with non-compliance. • The QA reports compliance progress to those three categories of managers and the consequence	• Everybody from a different pavilion is involved. • The CEO does not attend the meetings; feedback is provided to the CEO. • Progress is reported by the QA department to the senior and the executive manager. • There are regular follow-ups with executive management

	management comes from the managers.	to ensure collaboration and resource utilisation.
Governance framework with a standardised tool for tracking and reporting performance	• CMJAH standardisation is governed by structures, policies, and by the provincial office. • There is enforcement of standardisation using the OHSC audit tool as an internal audit tool. • The monitoring and evaluation are done by public health registrars once a quarter, and they verify the implementation of activities. • The registrars report back to QA on progress made at each department. • The QA send reminders to departments to send reports. • There are no standardised tools for tracking and reporting performance.	• Audit guidelines are translated into internal processes to ensure the flow of the processes. • There is a documented communication structure supported by an open-door policy at the QA department. • The QA relies on the M&E team to monitor progress, and there are quarterly meetings to discuss the progress. • Some of the gaps at a department level are only found during the official audits. • The QA department does not have an actual monitoring tool and does not know how to monitor. • The QA department also utilises the complaints and suggestions to monitor progress and relies on the feedback from the department. • Some departments do not provide feedback, and it is difficult to monitor because there is no tracking system to

		monitor and evaluate problems.
Service planning, monitoring, evaluation and meetings	• The quality improvement activities are monitored and evaluated by the GDOH, hospital board, exco, extended management committee and the functional business units. • The QA department shares the guidelines and the standard procedure with the hospital team. • Compliance performance is monitored through the quality improvement plan. • Deviations in compliance are noted in writing stating the planned preventative action and submitted to the provincial office.	• Compliance tasks are done by utilising the assessment and audit tools. • Data is extrapolated to indicate where the gaps are, and where improvement is needed. • The information is shared on the QA forum in collaboration with other departments, identifying risks and mitigations. • The QA department does regular walkabouts to observe if changes are being implemented or not.
Monitoring and evaluation: Data collection tools and processes	• Make use of the OHSC regulatory central hospital inspection tool version one for health care quality management as an internal assessment tool. • The checklist focuses on healthcare quality management, with domains such as user rights, clinical governance and clinical care. • A quality improvement plan will be generated for the areas that did not comply with the standard.	• The Ideal checklist is used as an internal assessment tool and the information will be captured on the Ideal national database. • The survey tools are also being used, but it is difficult to place ownership on somebody to carry out that quality improvement plan.

Monitoring and evaluation: Complaints, compliments and suggestion management	• Complaints meetings, which are patient-focused, are held to ensure that they are assisted through the patient safety incident.	• The complaints, compliments, suggestions and process are done through the patient experience of care service and waiting times survey processes. • The survey outcomes are displayed on the notice board walls. • Specific incidences are managed through the investigation channels.
Stakeholder participation and identification	• The public participates in quality improvement initiatives through surveys such as the patient experience, the daily patient observation survey, and the patient safety incidents. • The DHIS II tool was used and 1005 patients participated. • Quality improvement initiatives are developed if there is a complaint. • Other stakeholders that participate in quality improvement are the heads of departments, QA managers or coordinators, and the operational and assistance manager.	• There is an open-door policy where the public is encouraged to make suggestions on areas of improvement and the desired outcome. • There is a listening forum where the complainants are invited to state their stories to assist in improving the quality of care. • External stakeholders are the hospital board. • Surveys are done using the DHIS, Senjani and the Ideal hospital portal. • Notifications are sent to the provincial office and CEO.
Transparency and information management	• Transparency and information management, including	• The information management unit monitors the quality improvement data of the

	performance review, is managed by the public health registers • Information is managed with the relevant team members to ensure understanding and expectations.	hospital, and the data is put on an internal database and on a national database. • Transparency is achieved through feedback provided to the board of trustees during quarterly forum meetings. • Outcomes of complaints are displayed on the boards to ensure transparency.
Financial management implications: Resource utilisation, teamwork and performance behaviour	• There were no quality improvement plans for human resources required to implement quality improvement. • The people who were responsible for assessment did not have a clear understanding of assessments and had no background knowledge of what they were assessing, and there was no knowledge transfer at a departmental level. • The issue of performance behaviour is persistent as the hospital is not at a point where the staff clearly understand the importance of quality improvement. • There are human resources constraints, hence it is not possible to identify gaps before the main audits.	• Limited human resources are a challenge as it is difficult for the QA department to train both the day and night teams even though most of the staff are trained in quality or with health norms and standards. • Due to limited human resources, it is very difficult to place ownerships, and for somebody to follow through and ensure that QIP gaps are closed. • There will be people who do not do the work, do not think about change, and they do not work towards filling the gaps noted in the quality improvement plans. • The QA department is managed by the CEO so that there is transparency.

	• Operational managers are expected to be familiar with quality improvement plans, and patient incidents.	• The CEO provides direction concerning human resource and performance behaviour.
Audit framework that ensures meeting audit requirements and risk committees	• Each department manager is to ensure that internal audits have been conducted within the department. • There is a peer review activity where departments assess each other.	• The QA department also sits in during the audit when needed and participates in the audit report review. • The departments cross-audit each other. • Audit findings are discussed with the executive body in meetings. • Austerity measures have an impact on hospital staffing, where some findings will still be noted during the Ideal audit because there are no resources to ensure that gaps are closed in real-time.
Quality improvement governance plans, systems, processes and structures	• The hospital was not in line with the prescripts from national guidelines. • There was no governance structure to ensure that operations were as per the principles of the guidelines. • Quality improvement strategy was implemented, and improvements have been noted. • The portfolio dictates a quality improvement statement, and the	• There is no process in place to do the pre-assessments in preparation for the main audit. • The national guidelines are translated into the hospital strategies to determine the assessment needs and planning for audits that need to happen as per the schedule. • The CEO determines the hospital structure. • There are monthly, quarterly and ad hoc meetings

	terms of reference indicate the statement of intent. • Current systems are assessments and surveys to determine the areas that require quality improvement. • Line managers engage with their staff to plan how to close the identified gaps.	conducted to discuss the quality improvement activities. • GSH has quality improvement plans readily available that serve as reference material for future audits. • It is a challenge to monitor the systems in place because each department is busy with their projects.
Quality improvement committee	• There is a dedicated quality improvement committee, which is the functional business unit. • The committee meets once a month. • The terms of reference available are for committees.	• The Pavilion is the committee that oversees and discusses quality improvement activities. • There is a provincial monitoring evaluation committee that consists of coordinators and quality assurance managers from various hospitals. • There are also the daily morning huddle meetings, depending on the need, and this is where the governance structure is at every point of service.
Availability of improvement plans	• There are terms of reference for the quality improvement planning committee.	• There is an integrated quality improvement plan that covers all areas. • It is difficult for the QA department to track and

	• The overall quality improvement available is for the year 2022/2023.	monitor progress at a departmental level as each department is running in a silo concerning the quality improvement.
Effective or lack of quality improvement at an institutional level	• There must be adequate knowledge, understanding of the quality improvement process, determination, and ownership. • Most people did not understand compliance requirements to health norms and standards. • It is mostly the clinical heads that are familiar with the QIPs, and the other heads do not quite understand.	• It is important for conditions of quality improvement if there are strong, workable guidelines to guide the process of improvement and create uniformity across the board. • There is no process in place to do the pre-assessments in preparation for the main audit.

The overall assessment reports and quality improvement plans findings indicate that audit intervals and risk assessment committees were not effective due to the non-existence of the functional board. Concerning the availability of a quality improvement plan and implementation, CMJAH did not have quality improvement plans for the years 2019, 2020, and 2023, whilst GSH was only missing the 2019 quality improvement plans. Standard operating procedure non-adherence was noted, where CMJAH did not adhere to more than five SOPs, whilst GSH did not adhere to two SOPs, and the rest were partially adhered to. For the years 2019, 2020, 2021, 2022 and 2023 at CMJAH, there were no stakeholders identified, whilst at GSH, stakeholders participated in meetings. It has been noted between the two hospitals that meeting minutes of the governance structure did not have discussion concerning quality of care, external audit reports, financial reports, organisational risks, human resource management and development, plans about facility, strategic and annual performance, equipment and supplies, statistical data on population health indicators, hospital board feedback on health-related matters, compliments, complaints and suggestions.

The participant's semi-structured interview feedback indicates that meeting quality improvement objectives and systems at CMJAH was done through an independent verification once a quarter, whilst GSH indicated that, due to siloed output, it is difficult to track whether objectives are being met or not. At CMJAH, there were no targets set that are congruent with state objectives, whilst GSH indicated that targets are set by the national government and monitored by the provincial office. Both hospitals have a governance accountability supervision meeting structure responsible for decision-making making including investigation. In addition, there is a governance framework with a standardised tool for tracking and reporting performance, where monitoring and evaluation are done by public health registrars at CMJAH and at GSH the QA team relies on the M&E team to monitor progress. Furthermore, the data collection for monitoring and evaluation is collected using the OHSC regulatory central hospital inspection tool at CMJAH, whilst GSH utilises the Ideal checklist tool. For monitoring and evaluating the complaints, compliments and suggestion management, both hospitals make use of the DHIS tool, with GSH having an additional data collection tool called Senjani and the Ideal hospital portal. At CMJAH, information management is managed by the public health registers, whilst at GSH, it is the responsibility of the information management unit. Both hospitals have a human resource constraint challenge, and it was indicated that it is difficult to ensure that QIP gaps are closed. Both hospitals have an audit framework that ensures meeting audit requirements and risk committees, where departments are responsible for ensuring that audits are conducted within each department. CMJAH indicated that the hospital was not in line with the prescripts from national guidelines; however, a quality improvement strategy was implemented to determine the areas that require quality improvement. GSH indicated that national guidelines are translated into the hospital strategies to determine the assessment needs and audit schedule. Both institutions have a quality improvement committee, where the CMJAH meets once a month, and GSH have the daily morning huddle meetings. Lastly, concerning whether there is an effective or a lack of quality improvement at an institutional level, the CMJAH participants indicated that *"most people did not understand compliance requirements to health norms and standards",* whilst GSH indicated that *"there shall be strong, workable guidelines to guide the process of improvement and create uniformity across the board".*

CHAPTER 5: RESEARCH ANALYSIS, RECOMMENDATIONS AND CONCLUSIONS

Research analysis

The data analysis approach was a cross-analysis that entailed content analysis of audit reports and quality improvement plans. Audit reports were qualitative secondary data that were coded and sorted around common themes because health care governance is complex (Simister& James, 2020). The analysis applied Schierhout et al.'s (2013) thematic analysis approach focusing on data and data systems, regional support, and governance structures, including leadership and management ownership of the quality improvement system. The themes covered were a written quality improvement plans covering key areas, a dedicated quality improvement committee that designs and oversees the programme, a training programme that equips staff with the necessary skills and competencies, stakeholder participation in quality improvement processes, and the establishment of quality improvement structures, processes and staff participation in the quality improvement processes.

Charlotte Maxeke Johannesburg Academic Hospital has five employees in the quality assurance department (QA), and the hospital has six functional business units actively involved in quality improvements. The hospital QA unit does not have a database or dashboard or an electronic monitoring tool to evaluate performance; however, the internal audit or assessment information is captured on the Ideal database. Groote Schuur Hospital has four employees working in the quality assurance department. The Pavilion is the structure that oversees the quality improvement processes. The hospital QA unit also does not have a monitoring tracking system to monitor quality improvement activities in real-time, and it has been indicated during data collection that it is difficult to track the quality improvement activities at each department.

The Health Foundation (2021) further advises that systems should be able to identify and implement new evidence-based interventions, innovations and technologies, with the ability to adapt these to the local context. However, during the research, it was indicated that the Ideal assessment checklist is a one-size approach which is not desirable due to the dynamics at each hospital institution. There is some level of accountability in the governance structures in response to audit processes, tools, and quality improvement implementation. However, there is a need to ensure that both quality assurance departments have tools to monitor and evaluate quality improvement implementation rather than waiting for the quarterly meetings to address

any potential risks. Most elements of the governance structure indicate the matters relating to the structure should be discussed at executive meetings and QA forum meetings quarterly. Then it is an issue of concern where the governance structure needs to be effective, or a support plan should be developed as both facilities are public health facilities rendering services to the larger population who cannot afford to be on a medical aid.

Even though the 2011 NCS is clear about having a written plan for organisation-wide quality management and improvement programmes covering all key areas, the CMJAH only had one quality improvement plan, and the GSH had quality improvement plans dating back to the year 2020. The study findings indicate that there is a need to explore the gaps further concerning the quality improvement plans that were not being updated regularly and determine the corrective actions required to improve the level of compliance at both institutions. At both institutions, it was also noted that there were no improvement plans developed for the results of the mass casualty and evacuation drill, meaning, should all evacuation drills fail, whoever will be at those institutions in case of an evacuation procedure will not know the exact procedure to follow. Furthermore, it was indicated that, due to the size of both hospitals, it is impossible to practise emergency and natural disaster or external disaster drills as both hospitals are extremely busy, wards are full, and the outpatient departments must attend to hundreds of patients daily and the acuity of patients. There has been no practical drill exercise done and there is a need to consider alternative methods other than actual drills.

Participant XM from CMJAH indicated that the quality improvement plans *"should ideally be completed within 20 days of the result publicised";* however, this was not the case on the quality improvement plan submitted for research as there was no update for more than four months. Even though the CMJAH quality improvement plans indicated that there were plans to investigate, it was not clear how the investigations would be carried out, it was not updated yet during the research, and this raises questions on how often updates are conducted. In addition, CMJAH assessment reports indicated minimal meetings were held concerning quality improvement, and the results field on the plan was left blank. Therefore, there is a need for robust consequence management to ensure accountability by all levels of staff.

Van Belle & Mayhew (2016) emphasise the importance of commitment to quality improvement, responsiveness, and remedial actions. Groote Schuur's quality assurance department could not locate the 2019 quality improvement plans. All elements in the GSH 2020 quality improvement plans did not indicate the activity to be undertaken, by whom, when,

the results achieved, and all fields were blank. The quality improvement plans for the year 2021 further supported that there is no functional hospital board and no formal appointments. Quality improvement plans are not implemented, most fields were blank where it was supposed to be indicated the activity to be undertaken, by whom, when and the results of the activity. The same trend was observed in the 2022-year quality improvement plan, where there was no accountable person, nor a timeline for the activity, nor the desirable results. Most elements of the governance structure indicated that matters relating to the structure should be discussed at executive meetings, and executive and QA forum meetings, but this was not the case as per the quality improvement plans for both 2022 and 2023. It was indicated during interviews that, even though the QIPs are in place and readily available, it is a challenge to monitor the systems in place because each department is busy with its projects and there are always immediate problems that deter the QA from tracking the progress in real-time due to the unavailability of adequate human resources. There is a need to ensure that quality improvement plans are effectively implemented and monitored regularly, and if there is no implementation, it should be indicated why the items are not implemented. In this way, underlying risks or issues that need to be addressed will be noted as all systems are expected to comply with health norms and standards.

The Health Foundation (2021) advises that quality can be improved through leadership and governance by establishing arrangements and processes to identify quality issues that require investigation and improvement through the adoption of a consistent, aligned and systematic approach to improving quality. However, what was observed in this study is that both institutions can identify gaps, but the system towards improving quality needs further resource support. Coovadia et al. (2009) highlight that compliance with norms and standards is overlooked due to inadequate management and planning and limited human resources. Improvement of culture, behaviours and skills can enhance the recognition of a conducive environment to improvement where everyone is given a chance to improve and redesign the way that care is provided. This could be achieved by flattening hierarchies and ensuring that all staff have the time, space, permission, encouragement, and skills to collaborate on planning and delivering improvement. Both institutions indicated that with limited human resources it is sometimes not possible to participate in quality improvement activities at some hospital departments. Limited human resources have been noted as the impeding factor, as most quality improvement activities could not be conducted in real-time before the official assessments. Both hospitals need a robust governance structure to ensure that all quality improvement

activities are conducted as planned, and objectives are met. There will always be some departments that will not be able to meet compliance with health norms and standards if the human resource constraints are not addressed.

Both hospitals' quality assurance (QA) departments do not have any authority over any hospital sections, and it is a concern for the QA departments in cases of pushback. Both QA departments need dedicated personnel who will be overseeing quality improvement implementations at each hospital section, but are not involved in patient care management, but have the essential skills to observe any potential risks. This makes one wonder if the Department of Health is ready to implement National Health Insurance if the basic requirements of limited human resources are not addressed. Policy prescribes monitoring quality performance in the health care system and benchmarking to improve the quality of care (Backmana, Vanderloob & Forster, 2016). Policy and regulatory bodies support efforts are essential to develop whole-system approaches to improvement, and this could be achieved if the government ensures that health care services are appropriately resourced to deliver an agreed standard of quality.

There has been a trend of not following SOPs at both hospital institutions, and some SOPs were partially adhered to or not being adhered to altogether. The researcher could not ascertain if this has been attributed to the inadequate distribution of those relevant SOPs or inadequate training concerning those SOPs.

The auditor general has been doing more audits, as one would expect that the OHSC would be the body that should have been auditing the hospitals. The OHSC is said to be accrediting all hospitals in South Africa, but this has not been the case at CMJAH and GSH for the past four years. It is a concern considering the OHSC mandate, and CMJAH is using their tool as an internal audit tool. How will both hospitals reach or sustain their objectives to ensure a better quality of care? At CMJAH, some findings were observed by the AG which were scored as 100% by the department, but upon the AG audit it was observed that the score was inaccurate, and this indicates that some of the audit information being reported during the internal audit needs further investigation and verification by the governance structure.

It has been observed that external barriers such as austerity measures put in place do have an impact on audit outcomes because facilities are expected to scale down on goods and services, consumables as well as in staffing. This is attributed to the guidelines and policies that take precedence in terms of governance. Due to limited resources, some findings will still be noted during the Ideal audit because there are no resources to ensure that gaps are closed in real-time.

Research findings

The purpose of the research was to understand if the quality improvement governance structures are effective in achieving compliance with norms and standards at an institutional level. Furthermore, it was to understand if the currently allocated systems meet audit requirements by analysing the governance structures that are being applied to monitor the audit outcome and recommendations, and exploring how the governance structure ensured audit recommendations were addressed for the past four years.

The research asked the following questions: how does the quality improvement governance structure improve compliance with norms and standards at an institutional level? How does quality improvement governance structure ensure compliance with health norms and standards at an institutional level? Why are the systems meeting or not meeting the audit requirements? What are the monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement? And how do the governance structures ensure the implementation of audit recommendations concerning quality improvement? Below are the research findings:

a) The effectiveness of quality improvement governance structures to improve compliance with health norms and standards

The Ideal assessment reports indicated that there were gaps concerning the hospital board that was sometimes nonfunctional, where the meeting minutes indicated that the quality improvement plans, including remedial actions, are not regularly discussed and monitored. In addition, the quality improvement plans were not implemented and updated regularly. It was indicated during the participants' interviews that it is mostly the clinical heads who are familiar with the quality improvement plans, and other non-clinical heads do not understand the processes. In both hospitals, it has also been noted that there are no hospital guidelines to guide the improvement process that will create uniformity across the board, as participants could not indicate or highlight the targets set to ensure compliance with health norms and standards. For effective quality improvement governance at an institutional level, there must be adequate training including knowledge transfers, ensuring that there is an understanding of the quality improvement processes and systems in place, as inadequate implementation can lead to non-compliance with health norms and standards.

b) Quality improvement governance structure ensuring compliance with health norms and standards at an institutional level

CMJAH had no targets set, even though it was indicated that there is an independent verification conducted quarterly, it was unclear what objectives were being followed, and it was highlighted that, due to the interdependency of resources and infrastructures, it is not possible to meet the set key performance areas. The QA does not have authority over any department and reports compliance progress to the nurse manager, and the CEO has the authority to deal with non-compliance. GSH targets are set by the national government, and monitored by the provincial office, and the hospital follows the national objectives. There are plans and processes in place to ensure that targets are congruent with national and provincial objectives. Some targets are not met due to limited human resources, and it is difficult to establish if objectives are being met or not due to siloed improvement activities. Even though the CEO does not attend meetings, feedback is provided through the senior and executive managers concerning quality improvement activities to ensure compliance, as everybody from a different pavilion is involved in ensuring collaboration and resource utilisation.

On three different assessments at CMJAH, it was noted that the minutes of the hospital board meetings indicated that there were no discussions concerning external audit reports, human resources needs, and the annual performance plan. On two assessments, it was noted that the statistical data on population health indicators, and the hospital board feedback on health-related matters were not discussed by the board, and the contact details of hospital board members were not visibly displayed in the reception area. Plans, including facility operation and strategy, were not discussed. In addition, equipment and supplies, organisational risks, quality of care, financial reports, compliments, complaints and suggestions were not monitored. During one assessment, it was found that there was no loss and theft register, and all losses and thefts were not investigated. At GSH on two different assessments it was noted that the year plan did not indicate the scheduled meetings, there was no feedback at the ward committee meeting on health-related matters, the attendance register did not indicate that meetings held formed a quorum, and there were no signed minutes indicating that the hospital committee was informed of the progress against the facility operational plan. In different assessment years, it was noted that external audit reports, risks, quality of care, human resource needs, complaints, compliments and suggestions were not discussed and monitored. GSH did not have a functional hospital board for the year 2019.

c) Governance structures ensuring the implementation of audit recommendations concerning quality

CMJAH does have a dedicated quality improvement committee which is the functional business unit that meets once a month, and the terms of reference are available for committees. However, during the Ideal assessment at CMJAH, it was found that the hospital audit and risk committees were not effective, and the meeting minutes were not available. CMJAH participants indicated that it is the responsibility of the section managers to ensure that internal audits are conducted in each department, and the departments assess each other. The hospital did not receive a clean audit report from the Auditor General, clinical audits were not conducted quarterly, and the matter of unqualified or emphasis-of-matter audit results from the Auditor General was marked as not applicable. Furthermore, CMJAH did not have remedial actions for external audits, quality of care, or risk management including mitigation, and the terms of reference for the structure established to review quality improvement activities were partially available. The GSH audit committee is called the Pavilion, which oversees and discusses quality improvement activities, and this committee consists of coordinators and quality assurance managers from various hospitals. At GSH Ideal assessment, it was noted in more than three assessments that there was no functional hospital board, on two occasions it was noted that the national clinical audit guidelines were not available, clinical audits were partially conducted, and in one instance, the audit was not conducted quarterly. Lastly, the clinical governance structure was not functional only once. During interviews, participants indicated that departments cross-audit each other and the QA department participates when needed, and the audit findings are discussed with the executive. Participants further highlighted that some findings will only be noted during the official assessment because there are no resources to ensure that gaps are closed in real-time.

At CMJAH for the years 2019, 2020, and 2023, quality improvement plans were not developed and implemented for the clinical governance quality improvement plan, and for the human resources. On two occasions it was noted that the quality improvement plan for the mass casualty drill was not developed, and the evacuation drills were not effective. The 2023 quality improvement plans were not effectively monitored, and remedial actions to achieve the strategic targets were not implemented. CMJAH participants indicated that there are terms of reference for the quality improvement planning committee even though there was quality improvement for the year 2023 only. Even though there were integrated quality improvement plans covering all areas, participants indicated that it was difficult for the QA department to

track and monitor progress in each department, and this was noted on two occasions at GSH, the quality improvement plans were partially implemented for the identified environmental health risks, and the improvement plans for the results of the mass casualty and emergency evacuation drill were not developed. Furthermore, improvement plans for waiting time targets were also not implemented. At least on one assessment occasion, there was no schedule of planned maintenance for medical equipment, and corrective and/or remedial actions were not implemented for audit findings, management of risks, financial findings and human resources, strategic targets, and quality of care.

On two occasions at CMJAH the SOPs for the safe administration of medicines, for refusal of treatment available, for the management of laundry, for obtaining consent if patient-identifiable information is shared with a third party, and for healthcare-associated infections were not adhered to. Other SOPs not adhered to or partially or not available in one event were the SOP for managing patient records, handover between shifts, management of risk, and stock and contract management. In addition, other SOPs not adhered to or unavailable were for the reactive maintenance of medical equipment, outbreak notification and response, accessing emergency medical transport services, patient safety incidents reporting and learning, management of emergency resuscitations, the management and use of blood and blood products, and for management of elderly and frail or patients with reduced mobility. At GSH SOPs that were partially adhered to on two different assessments were the SOP for handling linen in use, refusal of treatment, infection prevention and control practices, management of elderly, frail or patients with reduced mobility, management and use of blood and blood products, outbreak notification and response, and for the safe administration of medicines. SOPs not adhered to during one different assessment period were for managing patient records, management of mortal remains, safe administration of medicines, management of mortal remains, and obtaining patient consent when sharing patient-identifiable information with a third party not covering all aspects.

d) Systems meeting or not meeting the audit requirements

To ensure that the audit requirements are met at CMJAH, the governance supervision structure is called the functional business unit and meets once a month to review the quality improvement plan, and the unit is supported by an extended management committee. The unit is also supported by the QA department, and it ensures accountability at each department.

Furthermore, assessments, surveys, and reviews are reported quarterly to the nursing and operational managers of the wards, and the CEO. The QA department shares the guidelines and standard operating procedures, and performance has been monitored through the quality improvement plan until recently. Even though the portfolio dictates a quality improvement statement, and the terms of reference indicate intent, CMJAH hospital was not in line with the prescripts from national guidelines, and there was no governance structure to ensure that operations were as per the principles of the guidelines. In addition, performance behaviour issues are persistent as the hospital is not at a point where the staff clearly understand the importance of quality improvement.

GSH has a quality assurance coordinating committee that ensures accountability, and it is called the Pavilion. The committee includes the board of trustees, the executive manager, the QA manager, the CEO, medical managers from each department, the head of nursing and superintendents with assistant and deputy directors. The head of the board is also part of the committee because he represents the community and follows up on audit-related issues, and this is to ensure transparency. There are monthly, quarterly and ad hoc meetings conducted to discuss the quality improvement activities. Quality is mandated at all levels and the information dissemination of quality improvements happens at the executive level, at the quality assurance forum meetings, and in the departments. However, there is no process in place to do the pre-assessments in preparation for the main audit or assessments. It is a challenge to monitor activities due to limited human resources, people not willing to work towards closing the gaps identified, and it is the CEO who provides direction concerning human resources and performance behaviour. It has been noted that the national guidelines are translated into the hospital strategies to determine the assessment needs and planning for audits that need to happen as per the schedule.

e) Monitoring systems in place to ensure compliance with the health norms and standards concerning quality improvement

CMJAH standardisation is governed by structures, policies, and by the provincial office, and enforcement of standardisation is through the utilisation of the OHSC audit tool as an internal audit tool. The monitoring and evaluation are done by the GDOH, hospital board, exco, extended management committee, the functional business units and public health registrars to verify the implementation of activities once a quarter. The registrars report back to QA on progress made at each department. The QA send reminders to departments to send reports, as

there are no standardised tools for tracking and reporting performance and, recently, compliance has been monitored through the quality improvement plan. Any deviation in compliance is in writing stating the planned preventative action.

GSH's QA department relies on the hospital monitoring and evaluation (M&E) team to monitor progress. There are quarterly meetings to discuss the progress, but there are gaps found during the official audits, as the QA department does not have an actual monitoring tool and does not know how to monitor. However, the Ideal assessment checklist has been adopted as the internal audit tool. The QA department also utilises the complaints and suggestions to monitor progress and relies on the feedback if only provided by the relevant department. The M&E extrapolate data to indicate where the gaps are, and what type of improvement activity is needed. The information is shared on the QA forum in collaboration with other departments, identifying risks and mitigations. The QA department does regular walkabouts to observe if changes are being implemented or not. Surveys are also used to monitor improvements, and the outcomes are displayed on the noticeboard walls.

f) Stakeholders' participation

During participant interviews, CMJAH participants indicated that the public participates in quality improvement initiatives through surveys such as the patient experience, the daily patient observation survey, and the patient safety incidents. The DHIS II tool was used and 1005 patients participated. Quality improvement initiatives are developed if there is a complaint. Other stakeholders that participate in quality improvement are the heads of departments, QA managers or coordinators, and operational and assistance managers. However, this is a contradiction of the assessment findings for the years 2019, 2020, 2021, 2022 and 2023, where there were no internal or external stakeholders identified, no list of community needs determined by the hospital committee, no agenda during the meetings indicated that community needs and progress against the operation plan were discussed, no proof that the committee took part in the opening of complaints boxes, no current year plan indicating the scheduled meetings, and no attendance registers showing that meetings held formed a quorum. At GSH for the years 2020 and 2021 it was noted that there was no formal agreement in place between the hospital and various government departments, community needs were not determined by the hospital committee, there was no agenda indicating that community needs and progress against the operation plan were discussed, no signed minutes indicating that the hospital committee was informed of the progress against the operational plan, and no list of community needs

determined by the hospital committee. However, there were no findings in the years 2019, 2022, and 2023. Furthermore, during the participant interviews, it was indicated that there is an open-door policy where the public is encouraged to make suggestions on areas of improvement and the desired outcome. In addition, there is a listening forum where the complainants are invited to state their stories to assist in improving the quality of care, and stakeholders include the hospital board.

Research recommendations

Quality improvement plans were not updated regularly, some had blank fields for more than four months. Therefore, both hospitals need an effective governance structure to ensure that all quality improvement activities are conducted as planned, objectives are met, and monitoring is done regularly.

Where there is no implementation, there should be a corrective action stating reasons, supported by the preventative action, and an effectiveness check to be conducted at least once a month.

Both hospital governance structures need to ensure quality assurance departments have monitoring and tracking tools to ensure quality improvement implementation is done in real time, rather than waiting for the quarterly meetings to address any potential risks.

Both institutions can identify gaps, but the system towards improving quality needs more human resources support to ensure that quality improvement initiatives are effectively implemented.

There is a need for dedicated personnel overseeing quality improvement implementations at each hospital section, but not involved in patient care management, but have the essential skills to identify any potential risks.

Standard operating procedures (SOP) non-adherence has been noted in both institutions, including essential SOPs. Therefore, there is a need for further training on the procedures as non-adherence could be because of inadequate knowledge or performance behaviour.

Verification or review of internal audit reports must be done by the personnel familiar with the processes to avoid inaccurate reporting that could be a finding during the official assessment or audits.

Conclusion

The main research question was to assess how the quality improvement governance structures improve and ensure compliance with norms and standards at an institutional level. The research findings indicate that both hospitals have a governance structure responsible for supervision and decision-making for quality improvement activities. However, one institution indicated that there were no targets set that are in congruence with the state objectives and for the other institution, the targets were being set by the national government and provincial office. Even though the board exists, it was noted that it is non-functional, and audit intervals and risk assessment committees were not effective. In addition, there were no meeting minutes indicating discussions pertaining to reports such as the audit, finance, monitoring of annual performance, complaints, compliments and suggestions.

Even though both hospitals have an audit framework that ensures meeting audit requirements, where there are meetings held once a month and some are daily, both institutions highlighted that the human resource constraint is a challenge, and it is difficult to ensure that quality improvement gaps are addressed. Non-adherence to standard operating procedures was noted at both institutions, this was attributed to the limited knowledge and understanding of the requirements to comply with health norms and standards, and this has resulted in systems meeting or not meeting the audit requirements

Concerning the monitoring systems in place to ensure compliance with the health norms and standards, it has been noted that both institutions have a governance framework for tracking and reporting performance; however, the quality assurance hospital departments do not have monitoring and evaluation tools that can track progress in real time. In addition to data collection, both institutions utilise the DHIS tool to collect data for suggestion management, compliments and complaints.

It has been noted that at CMJAH, it has been a challenge for the governance structure to ensure the implementation of audit recommendations concerning quality improvement, as the institution did not have quality improvement plans for the years 2019, 2020, and 2023, but GSH had four quality improvement plans, and was missing the 2019 quality improvement plan. Quality improvement objectives were being reviewed once a quarter at CMJAH, and GSH indicated difficulties in reviewing the objectives due to siloed output. It was further discovered that sometimes quality improvement findings can be noticed during the official audits or assessments, whilst they could have been resolved before any official assessment or audit. The

quality improvement plans are also not updated in real-time as other departments take time to update, and this is attributed to the limited human resources as indicated by the participants during interviews, and further supported by the findings in the Ideal assessment reports

Groote Schuur Hospital performed better in the year 2019, Ideal assessment, and in the year 2020, Charlotte Maxeke Johannesburg Academic Hospital's assessment score was better in the absence of quality improvement plans. In 2022, Charlotte Maxeke Johannesburg Academic Hospital's assessment score was better than Groote Schuur Hospital's, even though quality improvement plans were not available or not fully implemented, and then in 2023 Groote Schuur Hospital's assessment score was better than Charlotte Maxeke Johannesburg Academic Hospital. This could have been attributed to the availability of quality improvement plans throughout the years that were readily available upon request. Therefore, it is imperative to explore further the quality improvement governance structure dynamics at both institutions.

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APPENDICES

Data collection tools, semi-structured interview questionnaires, and a research instrument

Data collection tool.xlsx

Data and report request form

Permission to request research data

Permission letters

0000596T report request permission le

Research Approval Letter Ms A Bongwe c

Final Approval Ms A Bongwe from CMJAH

Participant information sheet and consent form templates

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WITS Consent Form for Asiashu Bongwe r

Ethics section

1. WITS application ethics forms

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2. Confidentiality agreement

Confidentiality Agreement for Asiash

3. Signed confidentiality and consent forms

CMJAH signed confidentiality and co

GSH signed confidentiality and co

P1 signed interview documents.pdf

4. Ethics certificates and approvals

Asiashu Bongwe ethics certificate from

Asiashu Bongwe ETHICS Certificate.pdf

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Ideal hospital framework

Ideal Hospital Framework Version 2_

Hospital facility audit reports

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Quality improvement plans

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CMJAH Ideal assessment training slides

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Document analysis checklist reports

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Participants transcribed interview responses


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