



Assessing the efficacy of value-based care in mitigating rising healthcare costs: A case study

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Supervisor: Prof RA Lotriet

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DECLARATION

Northwest University School of Business and Management

Master of Business Administration (MBA)

Title: Assessing the efficacy of value-based care in mitigating rising healthcare costs: A case study

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Date of Submission: [28 November 2025]

I, Karabo Khunedi, hereby declare that this research project entitled “Assessing the Efficacy of Value-Based Care in Mitigating Rising Healthcare Costs: A Case Study” is my own original work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at Northwest University. This work has not been previously submitted to any other institution for academic credit.

The research presented herein was conducted under the supervision of [Prof Ronnie Loriet], to whom I extend my sincere gratitude for their invaluable guidance, insights, and support throughout this process.

To the best of my knowledge and belief, this project contains no material previously published or written by another person, except where due reference and acknowledgement are made. All sources of information and data have been appropriately cited.

In line with the university’s guidelines on the responsible use of artificial intelligence, I acknowledge that limited AI-based tools such as Grammarly were ethically utilised for grammar checks and language refinement, while AI assistance was restricted to clerical support, including phrasing improvements and formatting suggestions. No AI system generated original ideas, arguments, interpretations, or analyses; all academic content, critical thinking, methodology, findings, and conclusions are entirely my own.

I understand the seriousness of academic integrity and affirm that this work is an accurate representation of my own research and analysis.

Signature: _____

Karabo Khunedi

Date: 28 November 2025.

DEDICATION

This work is dedicated to my family, whose unwavering support and patience were my anchor throughout this demanding journey.

PREFACE

This research was born from a profound concern for the sustainability of healthcare in South Africa. Witnessing the escalating costs and the stark disparities between the public and private sectors, I became deeply interested in innovative models that could deliver better care without exacerbating financial strain. Value-Based Care emerged as a compelling alternative to the traditional fee-for-service model, promising a more efficient and equitable future for healthcare delivery.

This dissertation represents a journey to understand whether this promise can be realised within the unique and challenging context of the South African healthcare landscape. The case study of PPO Serve provided a tangible, real-world example to explore the practical application, benefits, and hurdles of implementing VBC. It is my sincere hope that the findings and recommendations contained within this document will contribute meaningfully to the discourse on healthcare reform and inform strategies for a more sustainable and patient-centred health system in South Africa and similar contexts.

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The completion of this research would not have been possible without the guidance, support, and encouragement of several individuals and institutions. I wish to express my deepest gratitude to them.

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My sincere thanks go to the management and staff of PPO Serve for granting me access to their organisation and for their participation in this study. The willingness of the participants to share their experiences and insights provided the essential empirical data that forms the core of this research.

I am also grateful to the North-West University for providing the academic foundation and resources necessary to undertake this study.

To my colleagues and friends, thank you for your understanding and for the stimulating discussions that helped refine my thinking.

Finally, and most importantly, to my family: your boundless love, unwavering belief in me, and countless sacrifices have been my most significant source of strength. This achievement is as much yours as it is mine.

ABSTRACT

The South African healthcare system, characterised by a stark dual-tiered structure, faces unsustainable cost escalation, with private sector premiums rising 9-10% annually and nearly half of the country's 8.5% GDP health expenditure consumed by only 16% of the population. The prevailing fee-for-service model incentivises volume over value, exacerbating inefficiencies and financial strain. Value-Based Care (VBC) has emerged as a transformative model in high-income countries to address such challenges. However, its efficacy in low- to middle-income countries (LMICs), such as South Africa, remains underexplored. This study assesses the effectiveness of VBC in mitigating rising healthcare costs within this unique context, using a qualitative case study of PPO Serve's partnership with a leading medical aid group.

Data was collected through semi-structured interviews with 12 healthcare professionals and administrative staff at PPO Serve and analysed using thematic analysis. The findings indicate that VBC implementation, through integrated care coordination and preventative strategies, led to improved patient outcomes, including a reported 15% reduction in hospital readmissions and enhanced patient satisfaction. Furthermore, the model demonstrated effectiveness in reducing avoidable healthcare utilisation, thereby contributing to cost savings of 7-12% and better financial predictability. However, significant implementation challenges were identified, including data infrastructure fragmentation, financial incentives misaligned with VBC goals, and internal resistance to organisational change.

The study concludes that VBC is a viable strategy for reducing healthcare costs without compromising care quality in South Africa. It recommends strategic interventions such as strengthening health information systems, realigning reimbursement models with value-based incentives, and investing in comprehensive stakeholder engagement. This research provides critical empirical evidence on the adaptation and application of VBC in seeking to achieve sustainable and equitable healthcare delivery in resource-constrained environments.

Key terms: Value-Based Care, Healthcare Costs, Cost Mitigation, South Africa, PPO Serve, Patient Outcomes, Fee-for-Service, Healthcare Reform.

LIST OF ABBREVIATIONS

ACO	Accountable Care Organisations
CEA	Cost-effectiveness analysis
CMS	Centres for Medicare Services
DMP	Disease Management Programs
EHR	Electronic Health Records
FFS	Fee-For-Service
GDP	Gross Domestic Product
LMIC	Low- To Middle-Income Countries
NHI	National Health Insurance
NWU	North West University (Abbreviation)
P4P	Pay-For-Performance
PCMH	Patient-Centred Medical Homes
PPO	Professional Provider Organisation service
UHC	Universal Health Coverage
USA	United States of America
VBC	Value-Based Care
WHO	World Health Organisation

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DEFINITION LIST

Value-Based Care: An approach to healthcare delivery that emphasises patient-centred care, quality of care, and cost-effectiveness, aiming to optimise health outcomes while managing costs efficiently (Koff & Lyons, 2020).

Patient Health Outcomes: The results of healthcare interventions on patients' health status, encompassing indicators such as patient satisfaction, health-related quality of life, clinical outcomes, and healthcare utilisation patterns (Esmaeilzadeh, 2020).

Partnership: The collaborative relationship between PPO Serve and the medical aid group to implement and manage the Value-Based Care model (Joseph, 2023).

Efficacy: The ability to produce a desired or intended result, specifically in the context of evaluating how well Value-Based Care achieves its objectives (Koff & Lyons, 2020).

CHAPTER ONE: NATURE AND SCOPE OF STUDY

1.1 Introduction

Healthcare systems globally face the dual challenge of delivering high-quality care while managing rising costs, driven by ageing populations, proliferation of chronic diseases, technological advancements, and systemic inefficiencies (Joseph, 2023). In response, Value-Based Care (VBC) has emerged as a transformative model, aligning costs with patient outcomes and shifting focus from service volume to value delivered (Nguyen, 2023). VBC is a healthcare delivery model that emphasises high-quality care while controlling costs (Global Health Action Report, 2023). In this model, healthcare providers are compensated based on patient health outcomes, promoting coordinated care and preventive services (Nguyen, 2023). The model's goal is to enhance the patient experience, improve population health, and reduce overall healthcare expenditures (Nguyen, 2023; Global Health Action Report, 2023).

Traditionally, healthcare systems have operated under a Volume-Based Care (fee-for-service) model, in which providers are reimbursed based on the number of services they deliver. This approach often leads to increased healthcare costs without necessarily improving patient outcomes (Joseph, 2023). The shift towards VBC represents a fundamental change, focusing on the quality rather than the quantity of services. This transition aims to align healthcare incentives with patient-centred goals, thereby promoting efficiency, effectiveness, and improved health outcomes (Nguyen, 2023). Currently, VBC incentivises providers to achieve better outcomes and reduce unnecessary spending, gaining traction in high-income countries such as the U.S., where healthcare spending reached 19.7% of GDP in 2020 (Joseph, 2023; Nguyen, 2023). For instance, Accountable Care Organisations (ACOs), which are groups of doctors, hospitals, and other healthcare providers who voluntarily come together to provide coordinated, high-quality care to their patients, under the Affordable Care Act, saved \$1.9 billion in 2019, reducing spending growth by 2% compared to traditional models (Global Health Action Report, 2023). For instance, Figure 1.1 below compares healthcare spending as a percentage of GDP across different regions, highlighting disparities in resource allocation.

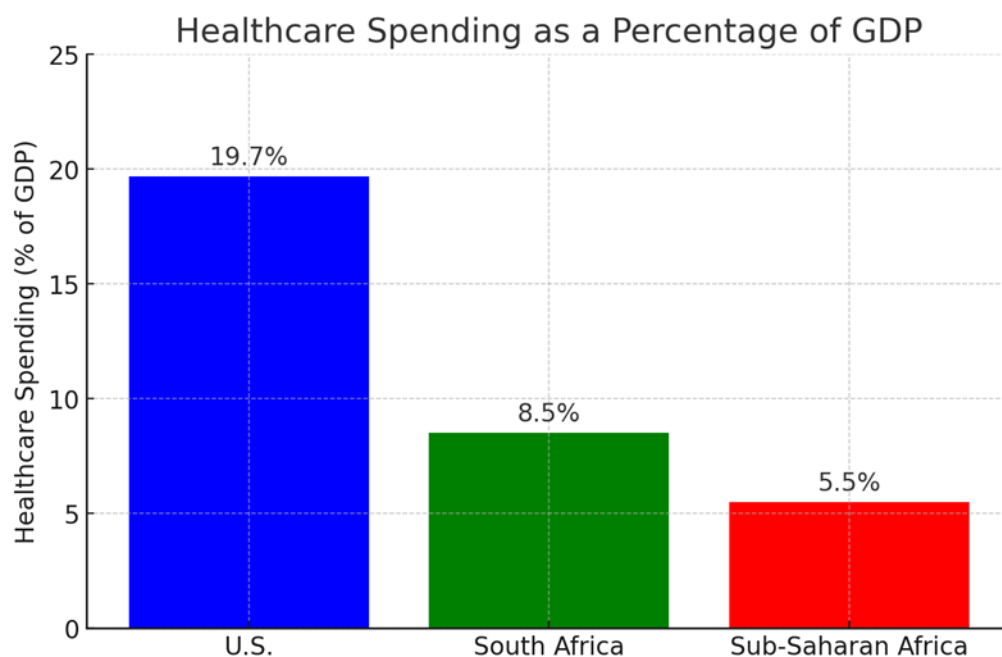


Figure 1.1: Healthcare expenditure as a percentage of GDP (2020) (Global Health Action Report, 2023).

As shown in Figure 1.1, there is a stark contrast in healthcare expenditure between regions. While the U.S. allocates nearly 20% of its GDP to healthcare, South Africa spends 8.5%, and Sub-Saharan Africa spends only 5-6%, indicating significant resource constraints that hinder effective healthcare delivery (Global Health Action Report, 2023).

This success has sparked interest in VBC's applicability in regions where healthcare systems struggle with cost and access inequities, limited resources, and a high burden of communicable and non-communicable diseases (Joseph, 2023). Sub-Saharan Africa allocates only 5-6% of its GDP on health, with out-of-pocket payments accounting for more than 37% of total health expenditure, thereby exacerbating inequalities and inefficiencies (Global Health Action Report, 2023). The early VBC initiatives, such as Rwanda's community-based health insurance program, have shown promise, reducing catastrophic health expenditures by 30% among the poorest households (Joseph, 2023). However, challenges such as weak infrastructure, inadequate data systems, and resistance to abandoning fee-for-service models hinder the broader implementation of these initiatives (Nguyen, 2023). In this regard, Figure 1.2 compares with traditional models.

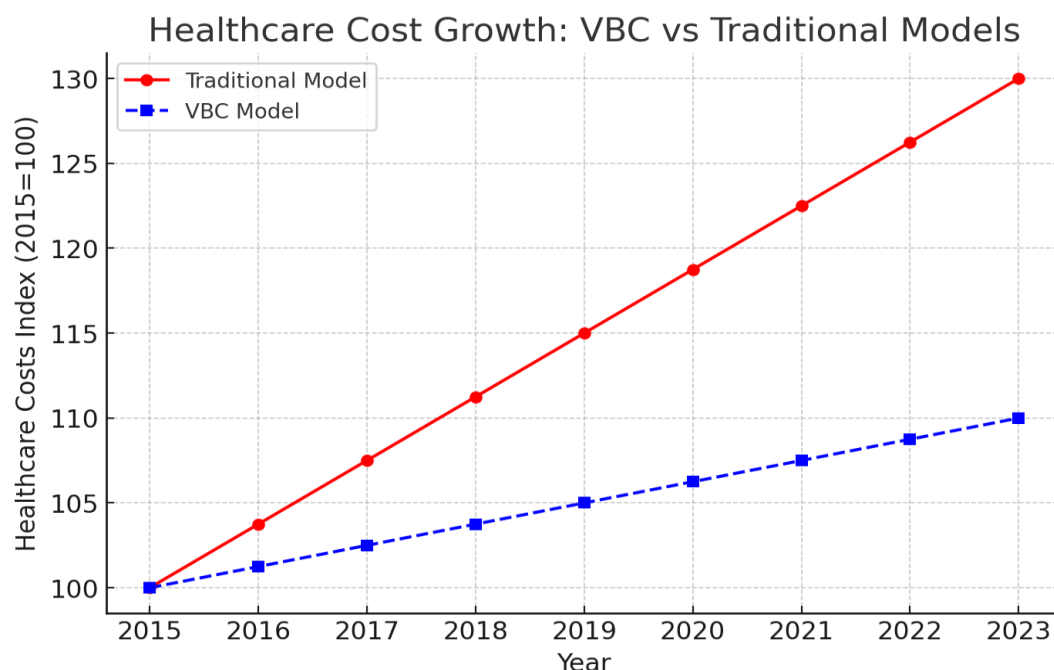


Figure 1.2: Healthcare cost growth (Nguyen, 2023).

The graph highlights the heavy reliance on out-of-pocket spending in Sub-Saharan Africa, which exacerbates financial inequities (Nguyen, 2023). Moreover, South Africa's healthcare system is characterised by a dual structure, with the private sector serving 16% of the population but consuming half of the 8.5% of GDP allocated to health expenditures (Global Health Action Report, 2023). The escalating costs in the private sector, driven by advanced medical technologies and the prevalence of lifestyle diseases, have led to annual premium increases of 9-10%, placing significant financial strain on both consumers and providers (Council for Medical Schemes, 2021). In response to these challenges, the South African government enacted the National Health Insurance (NHI) Act in May 2024, aiming to establish a single-payer system that provides universal access to quality healthcare services through mandatory prepayments (Council for Medical Schemes, 2021; PPO Serve Annual Report, 2023). Thus, integrating VBC principles into the NHI framework presents a promising strategy to enhance healthcare delivery by emphasising quality outcomes and cost efficiency (Council for Medical Schemes, 2021; PPO Serve Annual Report, 2023).

Additionally, this has sparked interest in VBC as a cost-containment strategy (Council for Medical Schemes, 2021). However, PPO Serve, a South African health management company, has pioneered VBC through partnerships with medical aid

groups, with a focus on prevention, early intervention, and coordinated care (Nguyen, 2023). The institution's Value Care Team (VCT) model has demonstrated a 15% reduction in hospital readmissions and a 10% decrease in healthcare costs (PPO Serve Annual Report, 2023). Nonetheless, the successful implementation of VBC requires addressing challenges such as aligning incentives, ensuring provider readiness, and establishing robust policy support (Council for Medical Schemes, 2021; PPO Serve Annual Report, 2023). Education and training for healthcare professionals are helping to reduce resistance to VBC principles. Similarly, supportive policies and financial incentives can further encourage the adoption of VBC principles. In contrast, supportive policies and financial incentives can help reduce resistance to VBC principles. The insights from initiatives such as PPO Serve's model can inform the broader adoption of VBC strategies within the NHI, potentially transforming South Africa's healthcare landscape (PPO Serve Annual Report, 2023). Figure 1.3 illustrates the upward trajectory of private healthcare costs in South Africa over time, highlighting the broader cost pressures that motivate interest in alternative models such as value-based care.

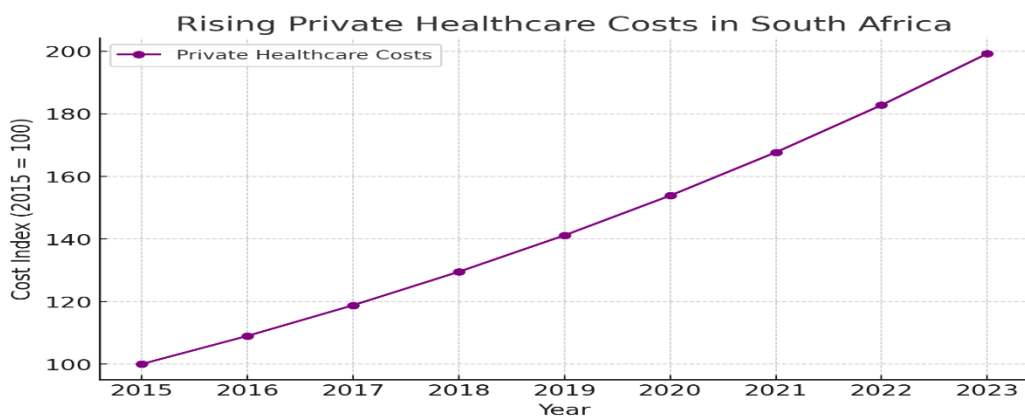


Figure 1.3: Impact of PPO Serve's VBC Model on Healthcare Outcomes (PPO Serve Annual Report, 2023)

Figure 1.3 illustrates the upward trend in private healthcare costs in South Africa from 2015 to 2023, using 2015 as the base year (index = 100) (PPO Serve Annual Report, 2023). The steady increase indicates sustained cost escalation in the private healthcare sector. The graph provides contextual evidence of rising cost pressures but does not assess value-based care outcomes or hospital readmission trends (PPO

Serve Annual Report, 2023). The trends emphasise the potential for broader VBC adoption in South Africa (PPO Serve Annual Report, 2023). This, therefore, calls for an assessment of the efficacy of VBC in reducing healthcare costs in South Africa, based on a case study analysis of PPO Serve's in-depth partnership with one of the leading medical aid groups (PPO Serve Annual Report, 2023). The study is therefore instructive both in its outcomes and in the challenges facing this initiative, especially regarding the potential of VBC to reform the South African health system. Likewise, this initiative has progressed in terms of outcomes and challenges, particularly regarding VBC's potential to drive reform. Additionally, lessons can be learned and applied in future contexts. Insights can be drawn from the outcomes and challenges of this initiative regarding VBC's capacity to reform the South African health system. Conversely, these lessons can be utilised more broadly across the continent to support wider adoption.

The purpose of this study is to provide valuable insights into the effectiveness, challenges, and alignment of value-based care in improving patient health outcomes among patients receiving medical aid and in similar settings, which face similar systemic challenges in South Africa.

1.2 Problem Statement

According to research by Gordon *et al.* (2020:4), the poorest citizens of low- and middle-income countries (LMICs) receive the lowest-quality healthcare, with over a billion people in these countries unable to afford it. Gordon *et al.* (2020:6) stated that the South African healthcare system is divided into two tiers; the wealthiest patients, many of whom have private medical insurance, use the private sector, and the least advantaged patients, those who rely primarily on the underfunded public sector. In this regard, the effect of VBC on patient health outcomes without an increase in the cost of their medical aid remains a gap, against the backdrop of South Africa's dual-tiered healthcare system and systemic challenges. However, successful implementation necessitates addressing several critical factors, including the development of robust infrastructure and improved data systems to facilitate effective patient management and care coordination (Vian, 2020). This requirement aligns with findings from other African nations; for instance, Rwanda's Community-Based Health Insurance (CBHI) scheme has significantly reduced out-of-pocket expenses for low-income households,

although challenges such as transportation costs to healthcare facilities persist (Pauw, 2022:921). Additionally, studies have highlighted that health data availability in Africa is limited and often of poor quality, posing significant challenges to the implementation of digital health and evidence-based practices (Pauw, 2022:921; Nguyen, 2023).

Thus, despite the innovative nature of value-based care, its effectiveness in improving healthcare access and outcomes for socioeconomically disadvantaged populations in low- and middle-income countries, such as South Africa, remains underexplored (Vian, 2020; Nguyen, 2023). Pauw (2022: 921) argued that unlawful denial of coverage, overcharging or underproviding care, embezzlement, unofficial payments, bid rigging, bribes, and conflicts of interest influencing prescription are examples of corrupt practices in healthcare. Additionally, corruption and inefficiencies within the public healthcare sector, coupled with disparities in healthcare utilisation and outcomes among the poorest citizens, further complicate the healthcare landscape in South Africa. This study aims to address these gaps by evaluating the implementation of VBC principles in South Africa's healthcare system, the challenges of adapting them, and the alignment of value-based care initiatives with patient needs and perceptions in the PPO Serve pilot. Additionally, the study aims to inform strategies to enhance equitable and patient-centred healthcare delivery in the region.

The main research question is:

- How effective is the implementation of Value-Based Care in mitigating rising healthcare costs in South Africa, as evidenced by the PPO Serve's partnership with a leading medical aid group?

1.3 Research Proposition

A research proposition is a declarative statement that presents the anticipated outcome or hypothesis of a study (Kumar, 2020). This study proposes that implementing VBC through PPO Serve's partnership with a leading South African medical aid group is an effective strategy for reducing healthcare costs while maintaining or improving the quality of care in South Africa's healthcare system.

1.4 Primary Objective

The primary objective of this study is to evaluate whether VBC can reduce healthcare costs without compromising the quality of care within the South African healthcare system. This involves an in-depth analysis of the outcomes of the partnership between PPO Serve and one of the leading South African medical aid schemes, providing insight into the viability of VBC as a model for sustainable healthcare in South Africa.

1.4.1 Secondary Objectives

The aim of the study was achieved by addressing the following secondary research objectives;

- To explore the current state of value-based care implementation at PPO and its effect on patient health outcomes
- To ascertain the challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape of South Africa
- To determine the interventions to enhance the value-based care implementation at PPO Serve.

1.5 Contribution of the Study

This study makes significant theoretical, practical, academic, and policy contributions towards the understanding of VBC and its potential to address systemic challenges in South Africa's healthcare system. Theoretically, the research advances the discourse on VBC by contextualising its principles within the unique socio-economic and structural realities of LMICs. While VBC has been extensively studied in high-income countries, its application in LMICs, such as South Africa, remains underexplored. In this regard, by examining the partnership between PPO Serve and a leading South African medical aid group, the study bridges this gap with a framework for adapting VBC to resource-constrained environments. The study also contributes to theories on healthcare financing and delivery by demonstrating how VBC can align cost-efficiency with equitable, patient-centred care, even in systems marked by stark disparities between public and private sectors.

Additionally, this study offers practical contributions by providing empirical evidence on the effectiveness of VBC in mitigating rising healthcare costs without compromising quality, specifically within South Africa's dual-tiered healthcare system. Thus, by analysing the implementation of the VCT model by PPO Serve, the research identifies key strategies such as multidisciplinary care teams, comprehensive risk management, and integrated information technology systems that can be adapted to resource-constrained settings.

Academically, this study enriches the body of knowledge on healthcare innovation in LMICs by providing empirical evidence on the effectiveness of VBC in mitigating rising healthcare costs without compromising the quality of care. The study addresses critical gaps in the literature regarding inequitable access. For instance, the study highlights issues such as unlawful denial of coverage, overcharging, and underproviding care, which are prevalent in South Africa's healthcare system. Thus, by analysing these barriers and their impact on VBC implementation, the research offers valuable insights for future studies on healthcare reform in similar contexts.

From a policy perspective, the study provides actionable recommendations for policymakers, healthcare administrators, and practitioners seeking to design and implement VBC initiatives in LMICs by identifying structural and operational reforms that enhance the viability of VBC in South Africa. It also emphasises the importance of aligning VBC initiatives with the needs of socio-economically disadvantaged populations, ensuring that healthcare delivery is both equitable and sustainable. Furthermore, the study's findings can inform national and regional policies, including improving transparency, reducing out-of-pocket expenses, and enhancing accountability in healthcare financing.

Overall, the study advances theoretical frameworks for adapting VBC to LMICs, enriches academic understanding of healthcare innovation, and offers practical policy recommendations to improve healthcare delivery in resource-constrained settings. Ultimately, the research underscores the potential of VBC to address systemic challenges and promote equitable, patient-centred care in South Africa and beyond.

1.6 Limitations and Scope of the Study

While this study aims to provide valuable insights into the effectiveness of VBC in mitigating rising healthcare costs within the South African context, it is important to acknowledge its limitations and scope. Firstly, the study focuses specifically on the partnership between PPO Serve and a leading South African medical aid group, which may limit the generalizability of the findings to other healthcare providers or medical aid schemes. The unique dynamics of this partnership, including its operational structure and patient demographics, may not fully represent the broader healthcare landscape in South Africa or other LMICs.

Moreover, the study relies heavily on qualitative data gathered through interviews and thematic analysis, which, although rich in detail, may be subject to biases such as recall bias or social desirability bias. The small sample size of 12 participants, though sufficient for an in-depth qualitative study, may not capture the full diversity of patient experiences and perspectives. Additionally, the study's focus on patient perceptions and health outcomes may overlook other critical factors, such as the financial and operational challenges faced by healthcare providers in implementing VBC.

The scope of the study is confined to evaluating the implementation, challenges, and outcomes of VBC within the context of PPO Serve's pilot initiative. While this provides a focused lens for analysis, it does not extend to broader systemic issues such as national healthcare policy reforms or the role of government in scaling VBC initiatives. Furthermore, the study does not explore the long-term sustainability of VBC or its potential impact on healthcare disparities beyond the immediate context of the partnership.

Despite these limitations, the study provides a critical foundation for understanding the potential of VBC in South Africa's dual-tiered healthcare system. Focusing on a specific case study provides detailed insights that can inform future research and policy discussions on the scalability and adaptability of VBC in LMICs. The findings will contribute to a growing body of knowledge on innovative healthcare models and their role in addressing systemic challenges in resource-constrained settings.

1.7 Research Methodology

The research methodology adopted for this study is further detailed in Chapter 3, where the Research Onion framework is applied to outline the philosophical stance, research approach, strategy, methodological choices, time horizon, and data collection and analysis techniques that underpin this investigation.

1.7.1 Philosophical assumptions

The philosophical assumptions of research are embedded preconceptions and ways of looking at issues that, consequently, shape the researcher's approach to knowing, reality, and the nature of inquiry (Creswell, 2021). These guide the research design, methodology, and interpretation of findings (Flick, 2022). Given the inductive nature of the research problem and objective, an interpretivist paradigm was adopted. The interpretivist paradigm guides this research, focusing on eliciting subjective meanings and experiences from various actors. The interpretivist paradigm guides this research, focusing on eliciting the subjective meanings and experiences of various actors involved in implementing VBC (Flick, 2022). Ontologically, this study adopted a relativist perspective, believing that reality is a social construct perceived differently by various stakeholders within the healthcare system (Saunders *et al.*, 2023). This aligns with the epistemological constructivist position held by most, which views knowledge as a product of interaction between the researcher and the researched, in which the researcher's experiences and perspectives inform its development (Saunders *et al.*, 2023). The paradigm aims to develop an in-depth understanding of Value-Based Care from a South African perspective.

1.7.2 Empirical investigation

This research aims to examine participants' interpretations of their opinions and their implementation of Value-Based Care. A qualitative approach is suitable for this study because it seeks to make sense by providing a detailed understanding of complex, context-bound factors, which would help explain the influence of VBC effectiveness in South Africa, beyond the explanatory purposes generally considered in quantitative methodologies (Silverman, 2020). The research approach is interpretivist, aiming to understand the meanings and interpretations of stakeholders in healthcare involved in

the PPO Serve partnership (Babbie, 2021). In the same vein, the study employed a case study design to investigate PPO Serve's rollout of VBC in partnership with a leading South African medical aid group. The case study design is selected because it investigates, in detail and depth, a specific instance situated in its real-life context. The case study was conducted at the PPO Serve office in Johannesburg.

Data collection instruments are well-designed tools for gathering and recording information from various sources in a manner relevant to answering specific research questions or addressing questions raised during the research process (Creswell, 2021). According to Nasri (2023), qualitative research employs methods such as interviews, focus groups, and documentary analysis in data collection. In this regard, semi-structured interviews were conducted using an interview schedule. The interview schedule was designed as follows:

- Section A: Demographic Details
- Section B: Current State of Value-Based Care Implementation at PPO Serve
- Section C: Challenges Faced by PPOs in Implementing Value-Based Care
- Section D: Interventions to Enhance the Value-Based Care Implementation.

The interviews were conducted face-to-face at the PPO Serve offices. The interview process was recorded digitally, and each session took 25-30 minutes. The participants were asked to sign consent letters to be recorded in the data collection process. Additionally, documentary analysis was used to support and triangulate the primary findings.

To maintain the privacy and confidentiality of participants' data, the research was conducted in accordance with strict ethical guidelines (Babbie, 2021). All data were collected without personal identifiers; therefore, participants had unique codes to ensure anonymity. Audio recordings and their transcriptions were stored in password-protected files accessible only to the research team. Proper informed consent was obtained regarding how the data would be used and for what purposes. Their right to withdraw from the research study at any time without consequences was emphasised. An assurance of confidentiality was offered throughout the research process, respecting participants' contributions, and all findings were presented in aggregate form to avoid revealing individual identities (Creswell, 2021).

1.7.3 Research population and sample

The choice of population is important for the relevance and insight of the data one intends to collect (Maree, 2020). In this study, the target population consisted of healthcare professionals and administrative staff involved in the implementation of VBC, who are central to understanding the practical issues and successes realised. This population ensures that the study captures a range of perspectives from those directly related to VBC processes, including insights into organisational, operational, and patient-related impacts. In this regard, non-probability sampling will be employed, in line with the qualitative research approach. The non-probability sampling will be conducted through a purposive sampling technique, which targets individuals with relevant experiences and knowledge, thereby increasing the relevance and depth of the data obtained (Creswell, 2021).

A sample size of 12 participants was used, based on Creswell's (2021) recommendation that a sample of 8-15 is sufficient for qualitative research to achieve data saturation. Thus, a sample of 12 participants was used, as it is manageable and ensures the capture of all different viewpoints while maintaining data quality through detailed interviews and discussions. This approach is consistent with the general principles of qualitative research, which focuses on depth of insight rather than statistical generalisation (Saunders *et al.*, 2019). The selection process and sample size gathering yield richly nuanced data, while the pragmatic imperatives of feasibility and access are addressed in targeted health organisations (Neuman, 2020).

This was a collaborative method where the gatekeeper, a senior executive from PPO Serve or the medical aid group-providing organisation, provided initial access to potential participants and facilitated their entry into the research process. The gatekeepers act as internal contacts with knowledge about the studied organisation and identify individuals who meet the inclusion criteria, thereby managing the recruitment process. The identified participants are then personally consulted by the researcher. All research objectives are explained in detail to them, and they are required to give informed consent. This structured approach ensures effective outreach, manages access to relevant stakeholders, and keeps participants well-informed, thereby enabling the researcher to gather rich, relevant data for the study.

1.7.4 Data analysis

Data from interviews in this study were analysed using thematic analysis. The purpose of thematic analysis is to provide an accessible and relatively flexible method for recognising, analysing, and reporting patterns or themes within qualitative data (Creswell, 2021). This approach provided a detailed examination of participants' experiences and perceptions of the implementation of Value-Based Care and its implications.

The significant steps involved in data analysis will include, first, verbatim transcription of the audio-recorded interviews, ensuring that participants' exact responses are accurately represented. Second, the researcher will have an initial familiarisation with the data by reading through the transcripts multiple times to understand the content correctly (Kumar, 2020). Following this, the researcher generated initial codes of significant features in the data by labelling those related to the research questions. The codes were grouped into potential themes, which were subsequently reviewed and refined to accurately represent the data (Priya, 2021).

The research rigour was ensured by the study's trustworthiness. This was ensured by satisfying the four pillars of trustworthiness: credibility, transferability, dependability, and conformability (Priya, 2021). This was achieved by identifying consistencies between the results and findings from the existing literature and theoretical arguments. Member checking was conducted by sharing tentative findings with selected participants to validate the accuracy of the interpretations (Creswell, 2021). In addition, the researcher maintained an elaborate audit trail, documenting all steps of the analysis process, and engaged in peer debriefing to ensure the rigour and objectivity of the analysis (Priya, 2021).

1.7.5 Empirical investigation

The empirical component of this research involved conducting interviews with 12 individuals from the general public. The interviews aimed to determine whether VBC reduces healthcare costs without compromising the quality of care within the South African healthcare system. The target population comprises healthcare professionals

and administrative staff involved in VBC, whose experiences provide valuable insights into the intersection of VBC and healthcare costs.

The data collected from these interviews were analysed using Atlas.ti. This study employed thematic analysis to ensure its validity and relevance. The findings shed light on the antecedents that shape consumer behaviour, particularly in contexts where financial and healthcare considerations overlap. This analysis provided actionable recommendations to better understand how VBC models, such as those implemented by PPO Serve in partnership with a closed medical aid, can reduce health costs without compromising care quality within the South African healthcare system.

1.8 Layout of the Study

The study is structured as follows:

- **Chapter 1: Scope and Nature of the Study-** The Chapter will introduce the study and outline the research parameters
- **Chapter 2: Literature chapter-** the chapter will conduct a literature review and theoretical framework.
- **Chapter 3: Research design and methodology-** the chapter will discuss the research design and methodology used in the study
- **Chapter 4: Results-** the chapter will discuss, analyse and interpret the findings of the study.
- **Chapter 5: Conclusions, limitations, recommendations-** the chapter discusses the conclusions, limitations and recommendations of the study.

1.9 Chapter Summary

In this chapter, the rationale and significance of the study were outlined, providing a clear introduction and overview of the research. The core research question was introduced, along with the primary and secondary objectives. These objectives focus on evaluating the impact of VBC on healthcare costs and quality, exploring implementation challenges, and identifying interventions to enhance VBC adoption. The chapter also discussed the study's limitations and scope, acknowledging its focus

on a specific partnership while emphasising its broader relevance to healthcare delivery in LMICs.

Additionally, the study is structured in five chapters. Chapter 2 conducted a literature review to explore the systemic challenges and opportunities associated with VBC in South Africa, including corruption, inefficiencies, and inequities in healthcare access. This review provided a theoretical foundation for understanding how VBC can address these issues while improving patient-centred care. Chapter 3 covered the manner in which data collection, analysis and presentation were conducted in the empirical research. The empirical findings in Chapter 4, derived from qualitative interviews and thematic analysis, are central to assessing the study's objectives. The findings were synthesised in Chapter 5, which offered conclusions and recommendations for policymakers and healthcare providers, thereby contributing to the discourse on sustainable and equitable healthcare delivery in South Africa and similar contexts.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter outlined the significant parameters. This chapter reviews the existing literature. This literature review provides an overview of the theoretical foundations of VBC, its global application, and the specific challenges and opportunities within South Africa's private healthcare system. The chapter reviews existing research on VBC models, cost-mitigation strategies, and the role of healthcare networks in optimising service delivery. Thus, by contextualising PPO Serve's collaboration with a closed medical aid scheme, this review aims to establish a framework for evaluating the financial and clinical effectiveness of VBC in addressing rising healthcare costs. The review commences by conceptualising VBC and health costs, the effects of value-based care on healthcare costs, and a theoretical framework and empirical studies.

2.2 Conceptualisation of Healthcare Costs

Healthcare costs encompass the provision of medical services and the maintenance of individual or population health (Allard, 2020). The costs are multifaceted, encompassing direct and indirect expenditures across different stages of care and contribute to the overall economic strain on healthcare systems (Buntin & Graves, 2020; Schmitt & Haarmann, 2023). Direct costs include medical treatments, physician visits, surgeries, medications, medical supplies, and administrative overheads, which are essential for the day-to-day functioning of healthcare facilities (Elias & Paradies, 2021; Schmitt & Haarmann, 2023). Indirect costs, by contrast, encompass broader societal and economic effects, such as productivity losses due to illness, informal caregiving, and long-term social burdens, including reduced workforce participation and increased reliance on welfare services (Buntin & Graves, 2020; Elias & Paradies, 2021).

Healthcare costs can also be classified as fixed or variable (Elias & Paradies, 2021). Fixed costs, such as infrastructure maintenance and salaries for permanent staff, remain constant regardless of patient volume (Elias & Paradies, 2021). In contrast, variable costs, including medical supplies, medications, and temporary staff, fluctuate

with demand (Elias & Paradies, 2021). A comprehensive understanding of these cost components is crucial for delivering high-quality care (Buntin & Graves, 2020). This is particularly relevant in the context of VBC, which seeks to optimise healthcare by improving care coordination, patient outcomes, and cost-efficiency. Models such as ACOs, bundled payments, and Pay-for-Performance (P4P) incentivise providers to reduce unnecessary spending while maintaining high-quality, patient-centred care, highlighting the importance of managing both direct and indirect, as well as fixed and variable, costs to ensure long-term health system sustainability (Elias & Paradies, 2021; Schmitt & Haarmann, 2023). The types of healthcare costs are tabulated in Table 2.1 below;

Table 2.1: Types of Healthcare Costs

Cost Type	Category	Examples
Direct Costs	Medical Services	Physician visits, surgeries, hospital stays, diagnostic tests
	Medications	Pharmaceutical drugs for chronic conditions, acute care, and preventive care
	Medical Supplies	Bandages, surgical tools, diagnostic equipment, and assistive devices
	Administrative Costs	Salaries of non-clinical staff, office overhead, and billing processes
Indirect Costs	Productivity Losses	Time lost due to illness or medical appointments, reduced work capacity
	Informal Care	Care provided by family members or friends, impacting their work or life
	Social & Economic Burdens	Long-term health conditions affecting economic growth, tax revenues, and welfare
Fixed Costs	Infrastructure Costs	Building maintenance, permanent staff salaries, and equipment costs
	Staff Salaries	Consistent expenses regardless of patient volume

Variable Costs	Medical Supplies	Costs that increase with the number of patients, such as bandages and drugs
	Medications	Medication costs vary based on patient needs and the specific prescriptions required.
	Temporary Staff	Wages for staff hired on a short-term basis or to meet patient demand

Source: Schmitt and Haarmann (2023)

As shown above, healthcare costs can be classified by type and category (Buntin & Graves, 2020). Direct costs cover medical services, medications, medical supplies, and administrative expenses required for patient care (Buntin & Graves, 2020). Indirect costs include productivity losses, informal caregiving, and long-term social and economic burdens (Schmitt & Haarmann, 2023). Costs can also be fixed, such as infrastructure and permanent staff salaries, or variable, including medical supplies, medications, and temporary staff that fluctuate with patient demand (Schmitt & Haarmann, 2023).

2.2.1 Healthcare Costs in South Africa Overview

South Africa's healthcare system is characterised by a stark, dual-tiered structure, comprising a well-resourced private sector that serves about 16% of the population and an overburdened public sector that caters to the remaining 84% (Global Health Action Report, 2023). The disparity drives significant inequities in healthcare costs, with private healthcare expenditure per capita nearly four times higher than public-sector expenditure (Nguyen, 2023). Also, the public system faces systemic healthcare access challenges, including chronic underfunding, receiving only 4.2% of GDP compared to the WHO's recommended 5%, severe staff shortages, with just 0.9 doctors per 1,000 people in public facilities, and inefficient resource allocation (Council for Medical Schemes, 2021; Global Health Action Report, 2023). The challenges are compounded by the quadruple burden of disease, such as HIV/AIDS, TB, non-communicable diseases, and trauma, which consumes approximately 70% of public health expenditure, while the private sector focuses disproportionately on specialist care for affluent patients (Nguyen, 2023; Global Health Action Report, 2023).

The digital divide, defined as the gap between individuals or institutions with reliable access to digital technologies and those without such access, further exacerbates healthcare disparities (Nguyen, 2023). In South Africa, only 34% of public health facilities have consistent internet access, compared with 89% of private institutions, which limits their ability to implement digital health solutions, coordinate care, and monitor patient outcomes effectively (Global Health Action Report, 2023). This technological gap limits telemedicine adoption in underserved areas, where 72% of rural clinics lack electronic health record systems (Nguyen, 2023). While private health insurers invest in digital innovations, such as AI diagnostics and mobile health apps, public-sector patients face barriers to accessing even basic e-health services. The National Health Insurance (NHI) scheme aims to address these inequities. However, its implementation faces challenges, including resistance from private providers, concerns about financial sustainability (requiring an estimated R200 billion annually), and the need for massive digital infrastructure upgrades to support integrated care across the two-tiered system (Council for Medical Schemes, 2021; Nguyen, 2023). This digital transformation is critical, as studies show telemedicine could reduce public sector healthcare costs by 15-20% through improved efficiency and reduced patient travel burdens (Global Health Action Report, 2023).

2.3 Value-Based Care Overview

South Africa's healthcare system comprises a complex and uneven landscape, shaped by a dual structure of public and private provision. The private sector serves about 16% of the population, a significant portion of the country's resources. However, it consumes nearly half of the 8.5% of GDP allocated to healthcare, while the public sector, underfunded at around 4.2% of GDP, provides for the remaining 84% (Council for Medical Schemes, 2021; Global Health Action Report, 2023). Private medical schemes, such as Discovery, Momentum, Bonitas, and GEMS, dominate the insurance market but face sustainability issues due to rising costs and annual premium hikes averaging 9–10%, making coverage increasingly unaffordable for middle-income households (Nguyen, 2023). Meanwhile, out-of-pocket spending accounts for more than 37% of total health expenditure, leaving many households vulnerable to financial hardship (WHO, 2022; Zhang *et al.*, 2024). The quadruple burden of disease,

HIV/AIDS, tuberculosis, non-communicable diseases, and trauma, further strains the system, exposing the limitations of current financing and delivery models.

The dominant fee-for-service (FFS) model in the private sector compensates providers based on service volume, which can encourage over-servicing and inefficiencies (Allard, 2020; Horvath, 2021). The alternative models, such as capitation and social health insurance frameworks, have been proposed, with the National Health Insurance (NHI) Act (2024) representing the government's most ambitious reform to date (McIntyre *et al.*, 2020). The NHI in South Africa aims to establish a single-payer system focused on equitable access, resource pooling, and linking funding to outcomes (WHO, 2022). However, the sustainability of this reform remains disputed, with challenges including provider resistance, funding gaps, and the need for advanced digital infrastructure to support integrated service delivery (Council for Medical Schemes, 2021). Theoretically, these debates align with Health Economics Theory, which emphasises cost-effectiveness, equity, and allocative efficiency amid resource scarcity (McIntyre *et al.*, 2020), and Value-Based Care Theory, which highlights patient outcomes relative to costs (Porter & Teisberg, 2006; McIntyre *et al.*, 2020).

Against this backdrop, VBC has emerged as a response to the inefficiencies of FFS (WHO, 2022). Popularised by Michael Porter and Elizabeth Teisberg in their 2006 book *Redefining Health Care*, VBC reframes healthcare around patient value, defined as outcomes achieved per dollar spent, rather than the sheer volume of services (Teisberg, Wallace & O'Hara, 2020). Globally, the adoption has varied across contexts. In the United States, programmes under the Affordable Care Act (2010), such as ACOs and bundled payments, have demonstrated cost-containment and quality improvements through data-driven care coordination, with ACOs saving Medicare more than USD 1.9 billion in 2019 while maintaining quality benchmarks (CMS, 2020). In Europe, systems in the Netherlands and Germany have integrated VBC principles into universal coverage, emphasising preventive care, patient empowerment, and chronic disease management (Kidanemariam *et al.*, 2023). For instance, the Netherlands rewards primary care providers who successfully manage population health outcomes. Similarly, Germany's Disease Management Programs (DMPs) have reduced avoidable hospitalisations for chronic conditions such as diabetes and asthma (Busse *et al.*, 2019).

While these examples from high-income countries (HICs) are instructive, their direct applicability to South Africa should be treated with caution, as they operate within far stronger economies, more sophisticated IT infrastructure, and significantly higher per capita health spending (WHO, 2022). The most appropriate lessons emerge from LMICs, which grapple with similar constraints, including limited resources, high disease burdens, and inequitable access. For instance, Rwanda's Community-Based Health Insurance (CBHI) programme has reduced catastrophic health expenditures by nearly 30% among poor households and improved access to essential maternal and child health services, demonstrating how pooling resources and focusing on primary care can drive equitable outcomes (Kidanemariam *et al.*, 2023). Similarly, Brazil's Family Health Strategy (FHS) has successfully implemented multidisciplinary, community-based teams, thereby improving coverage among underserved populations (Mendes *et al.*, 2020). In India, the Ayushman Bharat scheme strengthens universal coverage by targeting vulnerable groups (Kumar *et al.*, 2020). Thus, the LMIC examples highlight both the opportunities and constraints of applying VBC principles in resource-limited contexts: while they demonstrate the potential to expand access and improve outcomes, challenges such as inequitable financing, provider resistance, workforce shortages, and weak data systems continue to hinder full-scale implementation (WHO, 2022). Therefore, this depicts countries such as South Africa, with its dual healthcare economy, must adapt, not transplant, VBC frameworks to local realities if they are to achieve both equity and sustainability.

However, at its core, VBC is a healthcare delivery model prioritising outcomes and cost efficiency over service volume, operationalised through principles such as integrated practice units, outcome and cost measurement, bundled payments, coordinated care across sites, robust IT platforms, and expanded access (Leusder *et al.*, 2022). The Institute for Healthcare Improvement's "Triple Aim" framework, which focuses on improving patient experience, population health, and per capita costs, captures the essence of the concept (Beard, Franco, & Click, 2020). For South Africa, the relevance of VBC is evident in pilot initiatives such as PPO Serve's VCTs, which have achieved a 15% reduction in hospital readmissions and a 10% decrease in costs through prevention, coordination, and multidisciplinary care (PPO Serve Annual Report, 2023). While promising, the broader application of VBC in South Africa will depend on overcoming systemic barriers, including inadequate digital infrastructure,

provider resistance to shifting away from FFS, and the need for alignment with NHI objectives. The VBC framework is illustrated in Figure 2.1 below;

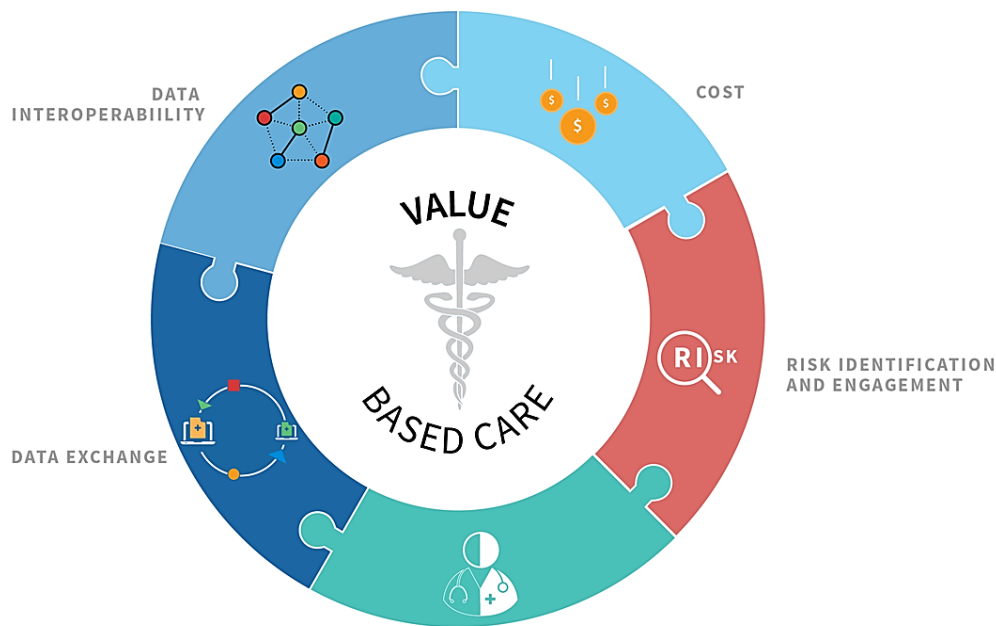


Figure 2.1: Value-Based Care (Kidanemariam *et al.*, 2023)

As shown in Figure 2.1, the interrelated dimensions of VBC, emphasises that successful implementation depends on four core elements: data interoperability and data exchange, which enable seamless sharing of patient information across providers; cost management, which ensures that healthcare delivery remains efficient and sustainable; and risk identification and engagement, which focuses on proactively managing high-risk patients through preventive care and early interventions (Kidanemariam *et al.*, 2023). The components form a holistic framework that shifts healthcare from a volume-driven to a value-driven model, aligning quality outcomes with cost efficiency (Kidanemariam *et al.*, 2023).

Therefore, VBC represents a compelling alternative to current healthcare financing and delivery models in South Africa. The potential lies not in copying high-income country models wholesale, but in contextually adapting their principles to address inequities, inefficiencies, and the realities of a dual economy (Kidanemariam *et al.*, 2023). Thus, if effectively integrated into national reforms, such as the NHI, VBC could serve as a pathway to achieving sustainable, equitable, and patient-centred healthcare.

2.3.1 Key principles of value-based care

Value-Based Care is grounded in six core principles that collectively redefine how healthcare is delivered, measured, and reimbursed (Beard, Franco & Click, 2020; Teisberg, Wallace & O'Hara, 2020). The principles shift the focus from volume-driven service provision to a system that prioritises patient outcomes, cost efficiency, and holistic well-being (Leusder *et al.*, 2022). In the South African context, where healthcare resources are often constrained, and disparities in access and quality are pronounced, implementing value-based care has the potential to improve service delivery, enhance equity, and optimise the use of limited resources while focusing on meaningful patient outcomes (Leusder *et al.*, 2022). The six key principles of VBC, each playing a critical role in transforming healthcare delivery, are discussed below and shown in Figure 2.2

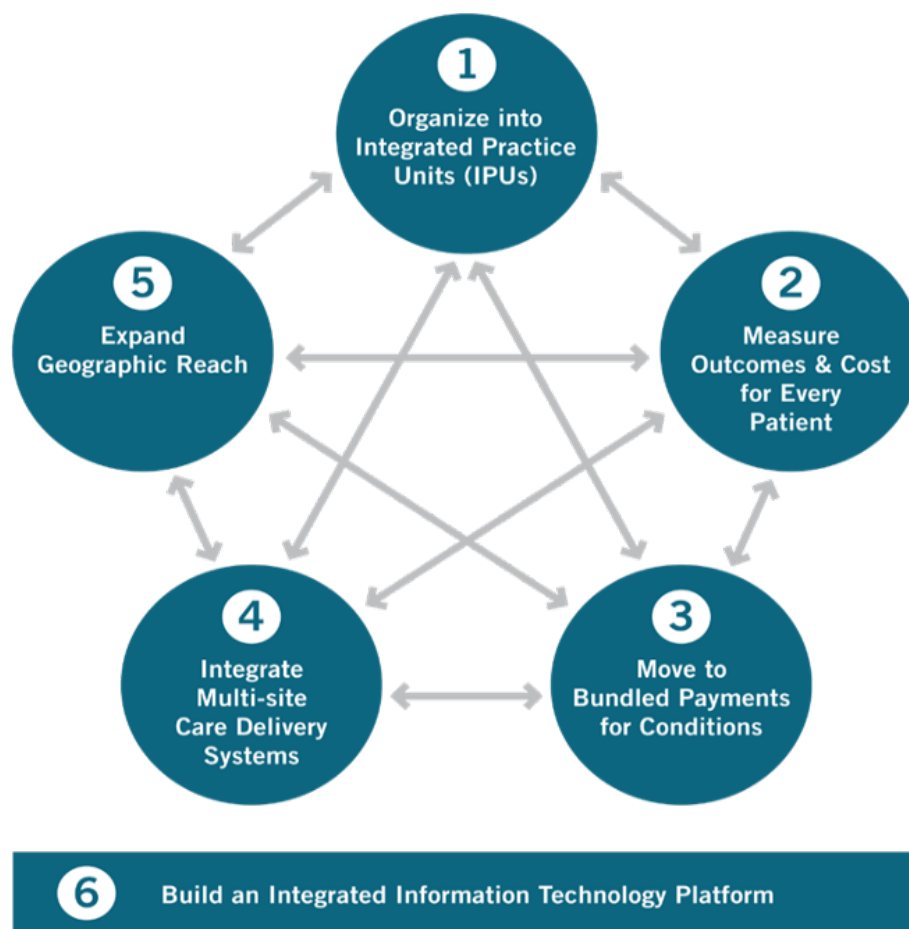


Figure 2.2: Key Principles of Value-Based Care (Leusder *et al.*, 2022).

Figure 2.2 highlights the six core principles that underpin VBC; the sections that follow expand on these principles and explain how they operate within healthcare systems.

2.3.1.1 Organise into integrated practice units (IPUs)

At the core of VBC is the organisation of care into Integrated Practice Units (IPUs), multidisciplinary teams that deliver comprehensive, patient-centred care for specific medical conditions or populations (Teisberg, Wallace & O'Hara, 2020; Leusder *et al.*, 2022). IPUs bring together specialists, primary care providers, nurses, and other healthcare professionals to collaborate on cohesive care plans. For example, a diabetes IPU might include endocrinologists, dietitians, and mental health professionals (Kidanemariam *et al.*, 2023). This approach enhances care coordination, improves outcomes, and reduces inefficiencies (Solomito, Kia & Makanji, 2024). In South Africa, however, implementing IPUs is constrained by shortages of specialists, an uneven distribution of healthcare workers, and limited resources, resulting in the confinement of fully functional IPUs to tertiary or private hospitals. Nonetheless, the IPU model, particularly when adapted to local healthcare realities, can support more coordinated, patient-centred care and improved service delivery within resource-constrained health systems (Rispel & Bruce, 2021).

2.3.1.2 Measure outcomes and costs for every patient

VBC emphasises measuring outcomes and costs for every patient to ensure accountability, transparency, and continuous improvement (Teisberg, Wallace & O'Hara, 2020; Leusder *et al.*, 2022). By tracking metrics such as patient recovery rates, hospital readmissions, and treatment costs, healthcare providers can identify gaps in care and optimise service delivery, for example, by analysing post-surgical complication data to refine protocols and reduce patient risks (Solomito, Kia & Makanji, 2024). In the South African context, this principle closely intersects with the question of digital transformation, as robust data collection and analytics require integrated health information systems, electronic medical records, and interoperable digital platforms (Solomito, Kia, & Makanji, 2024). Limited digital infrastructure, fragmented data systems, and variable IT capacity in many public hospitals constrain the full adoption of outcome- and cost-driven care, underscoring the critical role of digital transformation in enabling VBC across South Africa's healthcare system.

2.3.1.3 Move to bundled payments for conditions

A critical shift in VBC is the move toward bundled payments, in which providers are reimbursed for the entire episode of care rather than for individual services (Teisberg, Wallace, & O'Hara, 2020; Leusder *et al.*, 2022). This model incentivises efficiency and coordination, as providers are rewarded for delivering high-quality care within a fixed budget. For example, a bundled payment for knee replacement surgery would cover preoperative consultations, the surgery itself, and postoperative rehabilitation, thereby encouraging providers to avoid unnecessary tests or prolonged hospital stays (Kidanemariam *et al.*, 2023). This approach aligns financial incentives with patient outcomes, promoting cost efficiency and reducing waste.

2.3.1.4 Integrate multi-site care delivery systems

VBC thrives on integrating care across multiple sites, ensuring that patients receive seamless, continuous care regardless of where they are treated (Teisberg, Wallace & O'Hara, 2020; Leusder *et al.*, 2022). This principle mitigates the fragmentation common in traditional healthcare systems, where patients may receive disjointed care from different providers. For example, a patient transitioning from a hospital to a rehabilitation centre benefits from a unified care plan shared across both settings, thereby reducing errors and improving outcomes (Solomito, Kia, & Makanji, 2024). In South Africa, fragmented service delivery is widespread, with patients often navigating poorly coordinated public and private facilities. However, in cost analysis, care typically incurs higher cumulative costs due to duplicated tests, preventable complications, and longer recovery times. In contrast, a VBC-aligned, multi-site integrated system reduces inefficiencies, lowers overall treatment costs, and improves patient outcomes (Solomito, Kia, & Makanji, 2024). This, therefore, highlights the economic and clinical value of integrated care in the South African context.

2.3.1.5 Build an integrated information technology platform

A robust, integrated IT platform is critical for the successful implementation of VBC, enabling the collection, analysis, and sharing of patient data across the care continuum (Teisberg, Wallace & O'Hara, 2020; Leusder *et al.*, 2022). Such technology ensures interoperability, allowing providers to access real-time information and make informed decisions (Kidanemariam *et al.*, 2023). For example, an electronic health

record (EHR) system that consolidates data from primary care physicians, specialists, and laboratories can help identify patients at risk and support early interventions (Solomito, Kia, & Makanji, 2024). In the South African context, developing these platforms directly aligns with the narrative of becoming a digitally transformed healthcare institution: digital infrastructure serves as a support tool and a strategic enabler for improving efficiency, patient outcomes, and care coordination (Kidanemariam *et al.*, 2023). Therefore, effective digital transformation enables healthcare organisations to transition from fragmented, reactive care to proactive, data-driven, and patient-centred service delivery.

2.3.1.6 Expand geographic reach

VBC aims to expand its geographic reach to ensure that high-quality, value-driven healthcare is accessible to all patients, regardless of location (Teisberg, Wallace, & O'Hara, 2020; Leusder *et al.*, 2022). This principle is particularly relevant in South Africa, where rural and underserved populations often face significant barriers to accessing care, including long travel distances, limited availability of specialists, and under-resourced facilities (Kidanemariam *et al.*, 2023). Innovative approaches, such as telemedicine, mobile health clinics, and remote monitoring, can deliver specialised services to these communities, improving patient outcomes and reducing inequities (Solomito, Kia, & Makanji, 2024). However, to operationalise geographic expansion effectively, robust terms and conditions, data governance policies, and regulatory frameworks must be in place to ensure patient safety, privacy, and accountability. By extending its reach under structured safeguards, VBC promotes equity while maintaining high standards of care across South Africa's diverse healthcare landscape.

2.3.2 Adoption and Variations in VBC

VBC emphasises improving patient outcomes, enhancing cost efficiency, and promoting preventive care (Kidanemariam *et al.*, 2023). In LMICs such as South Africa, the adoption of VBC is constrained by limited healthcare infrastructure, constrained funding models, and context-specific policy frameworks (Adams & Engelhardt, 2022). Unlike high-income settings with advanced IT systems and well-resourced facilities, LMICs face challenges including workforce shortages, fragmented

service delivery, limited data collection and analytics capacity, and inequitable access to care (Adams & Engelhardt, 2022). The constraints necessitate tailored adaptations of VBC principles, such as the phased implementation of outcome measurement, the use of mobile health technologies, and collaborative care models, to improve care quality and efficiency within existing resource constraints. Figure 2.3 illustrates these variations within LMIC healthcare systems.

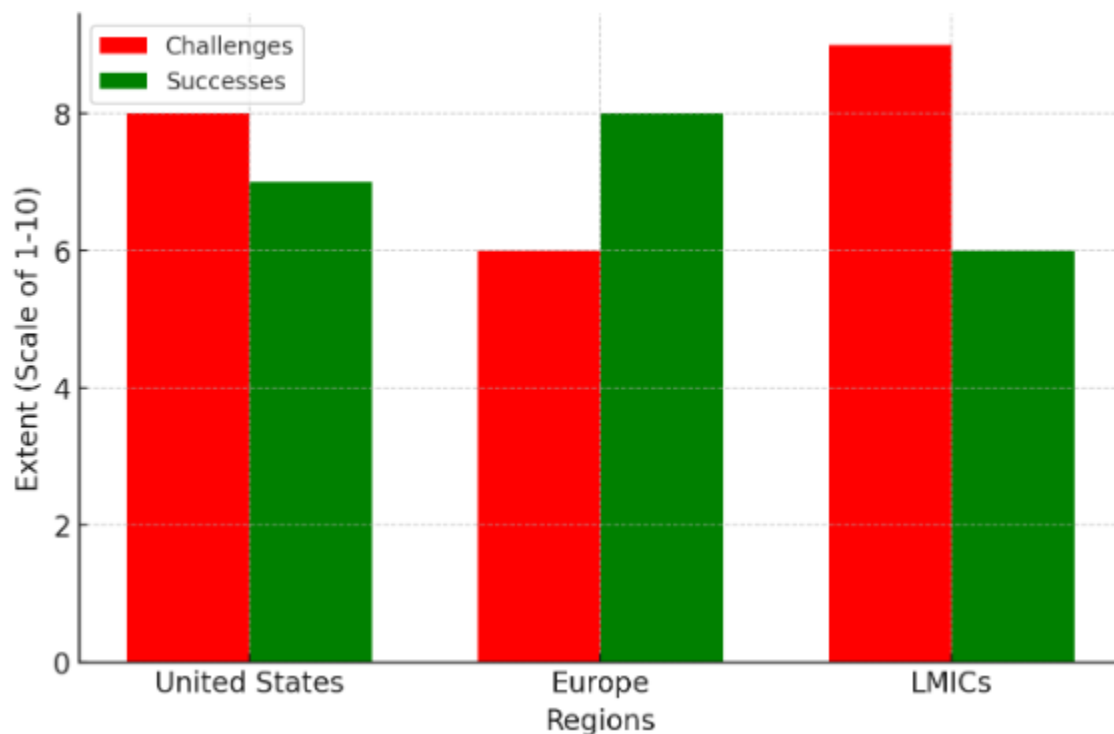


Figure 2.3: Global Adoption and Variations in Value-Based Care (Adams & Engelhardt, 2022).

In high-income countries, VBC is driven by healthcare policies that incentivise efficiency, quality improvement, and patient-centred care (Adams & Engelhardt, 2022). The United States has pioneered VBC adoption through initiatives by the Centres for Medicare & Medicaid Services (CMS), which promote payment models such as ACOs and bundled payment arrangements (CMS, 2021). Porter and Lee (2021) highlight the success of Kaiser Permanente’s integrated VBC model in reducing healthcare costs and improving chronic disease management. However, in LMICs, such as South Africa, additional challenges beyond those found in high-income countries hinder the widespread implementation of VBC. The challenges include provider resistance to change, limited administrative capacity, fragmented service

delivery, workforce shortages, and significant disparities in healthcare access between urban and rural areas. Therefore, these factors complicate the adoption of VBC models and necessitate context-specific strategies to ensure successful implementation (Schneider *et al.*, 2020; Adams & Engelhardt, 2022).

In Europe, VBC is embedded within public healthcare systems that emphasise preventive care and patient empowerment (CMS, 2021). The Netherlands operates under a managed competition model, where insurers and healthcare providers negotiate contracts based on performance and patient outcomes (Van Staalduinen *et al.*, 2022). Germany has integrated Disease Management Programs (DMPs) into its statutory health insurance system, prioritising long-term patient health over episodic treatment (Busse *et al.*, 2019). While these approaches have enhanced preventive care and chronic disease management, European nations face challenges in balancing cost control with high-quality service delivery, particularly amid ageing populations and rising healthcare expenditures (WHO, 2022).

LMICs face distinct obstacles to adopting VBC, including limited healthcare infrastructure, funding constraints, and workforce shortages (Centres for Medicare & Medicaid Services (CMS), 2021). However, many countries have incorporated VBC principles within Universal Health Coverage (UHC) frameworks to enhance efficiency and accessibility. India's Ayushman Bharat scheme has prioritised primary care and preventive interventions to reduce hospitalisation rates (Kumar *et al.*, 2020). South Africa's National Health Insurance (NHI) initiative seeks to strengthen primary healthcare services by linking funding to health outcomes (Moodley *et al.*, 2021). Similarly, Brazil's Family Health Strategy (FHS) has successfully implemented community-based care networks that emphasise preventive healthcare and integrated services (Mendes *et al.*, 2020; WHO, 2022). The VBC adoption in LMICs and other countries is illustrated in Figure 2.4 below;

Adoption Score by Country

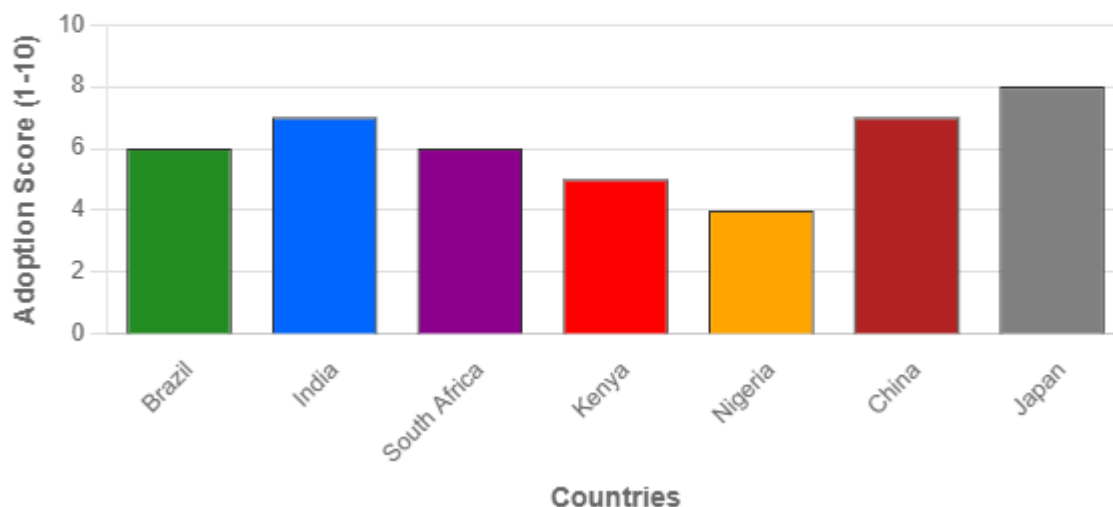


Figure 2.4: VBC Adoption in LMICs and Other Countries (WHO, 2022).

Despite these advancements, LMICs continue to face fragmented healthcare systems, inadequate funding, and a lack of comprehensive data infrastructure to track patient outcomes effectively (WHO, 2022). However, emerging technologies such as telemedicine, mobile health (mHealth), and artificial intelligence (AI) have proven instrumental in overcoming these barriers by enhancing accessibility and efficiency in healthcare delivery (Mukherjee *et al.*, 2021; WHO, 2022). Digital health innovations provide opportunities for LMICs to scale VBC initiatives, particularly in underserved areas where traditional healthcare models face logistical challenges.

2.3.3 Key Models and Frameworks in VBC

The models and frameworks under VBC focus on incentivising providers to deliver higher-quality care, prioritise patient outcomes, and reduce unnecessary spending, all of which help mitigate rising healthcare costs (Horvath, 2021; Hung, Kain, & Bozic, 2025). Below is a detailed discussion of several key models and frameworks employed in VBC, along with their efficacy in achieving these goals.

2.3.3.1 Accountable Care Organisations

Accountable Care Organisations are among the most prominent models within the VBC framework, designed to improve the quality of care while reducing costs (Horvath, 2021). ACOs bring together healthcare providers, including hospitals, in which they are accountable for the health outcomes of a defined patient population (Pamulaparti Venkata, 2023). Providers are incentivised to collaborate to manage patients' overall health, thereby improving preventive care and chronic disease management, which can ultimately reduce hospital admissions and lower healthcare costs (Hung, Kain & Bozic, 2025).

ACOs aim to improve **care coordination**, thereby reducing inefficiencies, service duplication, and unnecessary procedures (Horvath, 2021). The model's focus on preventive care can help reduce the need for expensive interventions later, such as emergency room visits and hospitalisations, which are key drivers of rising healthcare costs (Horvath, 2021). Furthermore, ACOs share in the savings generated by improved care outcomes, thereby aligning providers' financial incentives with the broader goal of reducing costs. A review by the American Journal of Managed Care (2016) found that ACOs were associated with modest savings in Medicare spending while maintaining or improving quality measures, demonstrating the model's potential for cost reduction. However, the efficacy of ACOs in mitigating rising healthcare costs varies, as their success depends on factors such as effective care integration, stakeholder engagement, and the availability of data to track outcomes (Pamulaparti Venkata, 2023). For ACOs to be fully effective, the infrastructure for coordinated care must be well developed, and providers must be committed to long-term care management rather than episodic treatment. However, implementing ACO-like structures in South Africa requires substantial investment in infrastructure, workforce capacity, and digital health systems, as well as strategies to foster provider buy-in and sustained engagement in longitudinal patient management.

2.3.3.2 Bundled Payments

Bundled payments involve a single, predefined payment for all services related to a specific episode of care, such as surgeries or hospital admissions (Horvath, 2021). Under this model, providers receive a fixed payment for all care related to an episode,

incentivising them to deliver care efficiently and avoid unnecessary or redundant services (Allard, 2020). The model encourages collaboration among healthcare providers, such as surgeons, hospitals, and rehabilitation facilities, because all parties share the financial risks and rewards associated with the episode of care (Pamulaparti Venkata, 2023).

The effectiveness of bundled payments in mitigating healthcare costs among providers has been widely documented in payment reform initiatives (Centres for Medicare & Medicaid Services, 2021; Horvath, 2021). By providing a fixed payment for a bundle of services, the model discourages overtreatment, unnecessary tests, and prolonged hospital stays, which are significant contributors to healthcare cost escalation. For example, a study published in the New England Journal of Medicine (2017) reported that bundled payments for joint replacement surgeries led to lower costs and improved patient outcomes, including shorter hospital stays and fewer complications. One of the challenges with bundled payments is ensuring that all necessary services are included in the bundled price without compromising patient care (Pamulaparti Venkata, 2023). Providers must balance cost-saving efforts with the maintenance of high-quality standards. There is also a potential for risk selection, where providers may avoid high-risk patients who could impact their ability to meet cost targets (Hung, Kain & Bozic, 2025).

2.3.3.3 Patient-Centred Medical Homes (PCMHs)

The Patient-Centred Medical Home (PCMH) is a model focused on comprehensive, coordinated, and patient-centred primary care (Allard, 2020). The PCMH model emphasises continuous, accessible care that is personalised to meet patients' needs, particularly those with chronic conditions (Horvath, 2021). The primary care physician serves as the patient's central point of contact, coordinating care across providers and settings, thereby facilitating more efficient management of patient health (Pamulaparti Venkata, 2023).

PCMHs have been shown to reduce healthcare costs by improving **care coordination**, preventing unnecessary hospitalisations, and promoting better management of chronic conditions (Allard, 2020). A study by Allard (2020) found that PCMHs lead to cost savings for both patients and healthcare providers. Thus,

emphasising preventive care and early intervention, PCMHs can help avoid the high costs associated with treating advanced disease states (Horvath, 2021). One challenge to the widespread adoption of the PCMH model is the initial investment required in infrastructure and training for primary care providers. The model also depends on primary care physicians' ability to effectively manage complex cases, which may require additional resources and support from specialists and healthcare teams (Hung, Kain, & Bozic, 2025).

2.3.3.4 Pay-for-Performance (P4P)

Pay-for-Performance (P4P) is a model in which healthcare providers are financially incentivised to meet specific performance metrics related to the quality and efficiency of care delivered (Allard, 2020). These metrics may include clinical outcomes, patient satisfaction, and adherence to evidence-based guidelines (Horvath, 2021). Providers who meet or exceed these performance targets receive additional payments from medical schemes, whereas those who fail to meet the targets may face financial penalties or reduced reimbursement (Joseph, 2023).

P4P models encourage providers to focus on delivering high-quality, efficient, and outcome-driven care (Allard, 2020). This can lead to improvements in care delivery and patient outcomes, and help reduce unnecessary costs. A systematic review by Allard (2020) demonstrated that P4P programs yielded modest improvements in clinical outcomes, particularly in chronic disease management, preventive care, and patient satisfaction. However, the effectiveness of P4P in mitigating healthcare costs depends on the alignment of performance metrics with actual patient needs and the accuracy with which quality is measured (Horvath, 2021). There is also concern that providers may focus solely on the metrics rewarded, potentially neglecting other important aspects of care that are not incentivised by the system (Pamulaparti Venkata, 2023). While financial incentives can drive improvements in specific areas, they may not fully address the underlying systemic inefficiencies that contribute to rising healthcare costs (Hung, Kain, & Bozic, 2025).

2.4 Theoretical Framework

A theoretical framework is a conceptual model that guides research by providing a structure for understanding the relationships between variables, concepts, and phenomena (Kumar, 2020). It draws on existing theories and concepts to inform the study's design and interpretation. Theoretical frameworks help clarify the key assumptions of the research, define the scope of the study, and offer a lens through which data can be analysed and understood (Creswell, 2021). In essence, it serves as the foundation upon which the research is built, ensuring that the study is grounded in established knowledge and theory. For this study, the theoretical framework is grounded in two key theories: VBC and Health Economics. These theories provide a robust foundation for understanding the interlink between VBC and healthcare costs, particularly in resource-constrained settings such as South Africa.

2.4.1 Value-based care theory

Value-Based Care Theory emerged in the early 2000s as a strategic response to the inefficiencies and escalating costs associated with traditional fee-for-service healthcare models. Pioneered by Michael Porter and Elizabeth Teisberg in their seminal work *Redefining Health Care* (2006), VBC advocates a shift from volume-driven healthcare delivery to models focused on maximising patient value. This approach ensures that providers are compensated based on patient outcomes rather than the quantity of services delivered. While VBC has gained traction globally, particularly in high-income countries where healthcare infrastructure and financing mechanisms support its adoption, its application in LMICs such as South Africa has been more recent (Porter & Teisberg, 2020). The rationale for adopting VBC in resource-constrained settings lies in its potential to optimise care quality, control costs, and address inequities inherent in dual-sector healthcare systems (Porter & Teisberg, 2020; Adams & Engelhardt, 2022).

At the heart of VBC Theory is the concept of “value, defined as health outcomes achieved per unit of cost (Porter & Teisberg, 2020). The model emphasises preventative care and early intervention, including screenings, chronic disease management, and proactive health monitoring, to reduce the need for costly treatments (Porter & Teisberg, 2020). Evidence-based clinical practices are central to

enhancing efficiency, eliminating unnecessary procedures, and optimising resource utilisation (Adams & Engelhardt, 2022). VBC promotes patient-centred care, ensuring that treatment plans reflect individual patients' needs and preferences and empower patients' journeys (Pamulaparti Venkata, 2023). This focus not only improves satisfaction and engagement but also strengthens health outcomes across diverse populations (Pietrzak, 2024; Pamulaparti Venkata, 2023).

The South African healthcare system faces significant challenges, including a dualistic structure where private Medical Schemes coexist with under-resourced public facilities, a high prevalence of chronic diseases such as HIV/AIDS, tuberculosis, and diabetes, and disparities in healthcare access. VBC Theory provides a critical framework for addressing these challenges by prioritising interventions that deliver measurable health outcomes relative to costs. Its emphasis on coordinated care is particularly relevant in South Africa, where fragmented service delivery often undermines treatment effectiveness. Preventative care and early detection strategies advocated by VBC can mitigate the long-term financial and clinical burdens imposed by chronic and infectious diseases, while patient-centred approaches enhance equity and responsiveness in a system marked by socio-economic disparities (Adams & Engelhardt, 2022; Pamulaparti Venkata, 2023).

This study aims to improve patient outcomes. By focusing on Medical Schemes as a platform for operationalising VBC, the research examines how financial and clinical incentives can be aligned to promote preventative care, efficient resource use, and equitable service provision. In particular, the study may examine the implementation of VBC in the context of chronic disease management and high-cost interventions, evaluating how theory-informed strategies can enhance both sustainability and clinical effectiveness (Pamulaparti Venkata, 2023). Thus, the framework provides a foundation for evaluating the potential of VBC to transform South Africa's healthcare system and guiding policy and operational decisions in resource-constrained environments.

2.4.2 Health economics theory

Health Economics Theory emerged in the mid-20th century as a distinct field of economics concerned with the allocation of scarce resources within healthcare

systems (McIntyre *et al.*, 2020). Foundational contributions by pioneers, such as Kenneth Arrow (1963), highlighted the unique characteristics of healthcare markets, including information asymmetry between patients and providers and the significant role of government intervention. Over time, the theory has evolved to encompass healthcare financing, cost-effectiveness, and equity, with increasing relevance for LMICs where resources are constrained, and health disparities are pronounced (Le Corroller & Bonastre, 2023). The incorporation of cost-effectiveness analysis (CEA) has become central, providing a methodological tool for evaluating the economic impact of healthcare interventions and guiding efficient resource allocation in resource-limited settings (McIntyre *et al.*, 2020).

Health Economics Theory is grounded in the principle of resource scarcity, asserting that limited inputs, such as personnel, facilities, and technologies, must be allocated efficiently to maximise societal welfare, particularly in LMICs such as South Africa (McIntyre *et al.*, 2020). Cost-effectiveness analysis enables decision-makers to identify interventions that deliver the greatest health benefit relative to expenditure, thereby prioritising value-for-money programs such as preventive care and early disease management (Wang & Fattore, 2020). Equity is a core principle, emphasising fair access to healthcare services and outcomes, especially for populations in resource-disadvantaged regions. Additionally, the theory advocates for innovative financing mechanisms, such as value-based reimbursement, that align provider incentives with high-quality, cost-effective care, thereby promoting both financial sustainability and equitable service delivery (Le Corroller & Bonastre, 2023).

Health Economics Theory provides a critical framework for evaluating the economic implications of implementing VBC in South Africa (McIntyre *et al.*, 2020). By emphasising cost-effectiveness, the theory enables policymakers and healthcare providers to evaluate interventions, such as preventive care, expansion of primary healthcare services, and chronic disease management, based on their potential to reduce overall healthcare costs while improving population health outcomes (Wang & Fattore, 2020). In South Africa's context, marked by socio-economic disparities and inequities in access, the theory of equitable resource allocation and prioritisation of interventions that yield the highest health benefits per unit cost (Le Corroller & Bonastre, 2023).

Furthermore, Health Economics Theory informs the design of innovative financing and reimbursement models that can support VBC implementation. Mechanisms such as bundled payments, Pay-for-Performance (P4P), and ACOs enable alignment of financial incentives with quality and efficiency objectives, creating a framework for cost containment while maintaining high standards of care. These models are designed for resource-limited environments. By bridging economic theory and practical healthcare strategies, Health Economics Theory offers a robust foundation for understanding and optimising VBC interventions in South Africa.

2.5 Challenges Faced in Implementing Value-Based Care in the Healthcare Landscape

The implementation of VBC in the healthcare landscape presents numerous challenges at both the organisational and systemic levels (Abicalaffe & Schafer, 2020). One of the most prominent challenges is the cultural shift required for transitioning from fee-for-service models to value-based reimbursement structures (Horvath, 2021). In traditional FFS models, healthcare providers are compensated based on the volume of services they deliver, which inadvertently incentivises quantity over quality, often leading to unnecessary procedures, tests, and hospital admissions (Allard, 2020). By contrast, VBC models emphasise improving patient outcomes and care quality while reducing unnecessary spending. This transition necessitates a fundamental shift in mindset, in which healthcare providers, payers, and patients must prioritise long-term health and preventive care over episodic, reactive interventions (Kidanemariam *et al.*, 2023). Providers accustomed to the financial predictability and stability of FFS may resist this change, as they are uncertain about the long-term viability of outcomes-based payments (Pamulaparti Venkata, 2023). This resistance to adopting new reimbursement models is compounded by a lack of adequate understanding and training in managing patient care effectively in a VBC environment.

Abicalaffe and Schafer (2020) proposed that the challenge in implementing VBC lies in the complexity and variability of patient populations. VBC models are highly dependent on improving patient outcomes; however, these outcomes are often influenced by a range of factors that are difficult to standardise (Allard, 2020). Patients often present with multiple comorbidities, such as chronic conditions that complicate treatment and care plans (Kidanemariam *et al.*, 2023). These conditions can vary

significantly across different factors, such as access to healthcare, health literacy, and social determinants of health, all of which play a crucial role in outcomes (Horvath, 2021). The diversity in patient needs requires the creation of **standardised care protocols** that apply universally and ensure consistent quality across all patient populations (Allard, 2020). Moreover, patients may vary significantly in their efforts to improve outcomes (Pamulaparti Venkata, 2023). Healthcare providers, therefore, face the challenge of managing these complex cases with limited resources, while striving to deliver high-quality, coordinated care. Therefore, without adequate infrastructure, care teams may struggle to meet each patient's unique needs while adhering to VBC's cost-control goals.

Data integration and interoperability pose additional obstacles to the widespread implementation of VBC (Adams & Engelhardt, 2022). For value-based models to succeed, healthcare systems need real-time, comprehensive data on patient care, outcomes, and costs (Allard, 2020). This data enables providers to make informed decisions, track performance, and ensure that care is being delivered effectively and efficiently (Kidanemariam *et al.*, 2023). However, many healthcare systems still operate in silos, with EHRs and other data management systems that do not communicate seamlessly across different providers or facilities (Pamulaparti Venkata, 2023). This lack of interoperability means that important patient information may be fragmented or inaccessible, complicating efforts to coordinate care across multiple providers (Hung, Kain & Bozic, 2025). Thus, it also impedes the ability to track patient outcomes and to measure the effectiveness of care delivery, both of which are crucial components of the VBC model.

The upfront investment required to transition to VBC can be a significant barrier, particularly for smaller healthcare organisations, due in part to sunk costs; irrecoverable expenditures on digital infrastructure, staff training, and care coordination systems that may not yield immediate returns or could be lost if the initiative fails (Allard, 2020). The infrastructure needed to collect, analyse, and utilise data on patient care and outcomes requires substantial financial investment in technology, staffing, and training (Kidanemariam *et al.*, 2023). Smaller organisations, in particular, may lack the capital necessary to make these investments, thereby delaying or even preventing their adoption of value-based models (Allard, 2020). In

addition to financial constraints, healthcare providers must invest in extensive training to equip their staff with the skills necessary to manage care within a VBC system. This includes training on data-driven decision-making, patient engagement strategies, and effective care coordination (Pamulaparti Venkata, 2023). These training programs entail high costs and require time and resources, which can delay the transition to VBC and disrupt day-to-day operations in the interim (Hung, Kain & Bozic, 2025). As a result, **smaller providers** may find it particularly difficult to make the necessary changes, further exacerbating disparities between large healthcare systems and smaller, independent practices in adopting VBC models.

2.6 Effects of Value-Based Care on Healthcare Costs

Value-Based Care has the potential to significantly impact healthcare costs by reducing unnecessary expenditures and improving the quality of care provided (Allard, 2020). The overarching goal of VBC is to shift the focus of healthcare from volume-based reimbursement, which incentivises the provision of more services, to a system that rewards improved patient outcomes and cost efficiency. By emphasising preventative care, enhancing care coordination, and reducing hospital readmissions, VBC aims to mitigate rising healthcare costs while improving patient outcomes (Miller *et al.*, 2020). This approach represents a fundamental shift in healthcare delivery, moving away from reactive treatment models to proactive, patient-centred care that prioritises long-term health and cost-effectiveness (Liu & Zhang, 2023).

One of the key ways in which VBC influences healthcare costs is by emphasising preventative care and early intervention (Allard, 2020). By focusing on preventing illness rather than merely treating it once it arises, VBC models aim to reduce the long-term burden on the healthcare system (Jones & Brown, 2020). Preventive measures, such as regular screenings, vaccinations, and management of chronic diseases, can help prevent the need for costly hospitalisations and emergency care. Studies have shown that investments in preventive care can yield significant cost savings by reducing the incidence of preventable diseases and minimising complications associated with chronic conditions (Smith *et al.*, 2020). For example, early detection and management of diabetes through regular monitoring and patient education can prevent costly complications such as kidney failure or cardiovascular disease. By focusing on keeping patients healthier, VBC helps avoid costly, acute care episodes

that can lead to a surge in healthcare spending (Liu & Zhang, 2023; Jones & Brown, 2020).

Moreover, VBC encourages better care coordination across different providers and healthcare settings, thereby reducing service duplication and minimising inefficiencies in care delivery (Jones & Brown, 2020). **Coordinated care** ensures that patients receive appropriate care at the right time, thereby reducing the likelihood of unnecessary tests, procedures, or hospital admissions. In traditional fee-for-service models, patients often see multiple specialists who may not communicate with one another, resulting in redundant tests or treatments (Miller *et al.*, 2020). Under VBC, care teams work collaboratively to develop comprehensive care plans, ensuring that patient needs are met without redundant interventions (Jones & Brown, 2020). This reduces administrative costs, enhances patient satisfaction, and, ultimately, lowers overall healthcare spending (Smith *et al.*, 2020). For instance, integrated care models that use shared EHRs and care coordination platforms have been shown to reduce hospital readmissions and improve patient outcomes, leading to significant cost savings (Jones & Brown, 2020; Liu & Zhang, 2023).

In addition, VBC models incentivise healthcare providers to improve the quality of care, which, in turn, can lead to cost savings (Jones & Brown, 2020). When medical aids financially reward providers, they are more likely to prioritise interventions that are both effective and cost-efficient. This is because medical aids financially reward providers for achieving positive patient outcomes, such as improved health status, reduced hospital readmissions, or better management of chronic diseases (Miller *et al.*, 2020). This shift from a focus on quantity to one on quality encourages providers to adopt evidence-based practices, reduce unnecessary hospital stays, and avoid the overuse of expensive treatments that may not provide significant benefits to patients (Jones & Brown, 2020). For example, reducing avoidable readmissions by improving discharge planning and follow-up care can yield substantial savings by preventing costly rehospitalisations (Smith *et al.*, 2020). Studies have shown that hospitals participating in VBC programs have achieved significant reductions in readmission rates, leading to lower overall healthcare costs (Jones & Brown, 2020; Liu & Zhang, 2023).

2.7 Empirical Studies: Value-Based Care on Healthcare Costs

Empirical studies examining the implementation of VBC and its impact on healthcare systems have provided significant insights, particularly in environments such as South Africa. Research on VBC has predominantly been conducted in high-income countries, where the transition from fee-for-service models to value-based models has been more advanced. These studies have demonstrated that VBC can improve patient outcomes, reduce healthcare costs, and increase resource efficiency (Porter & Teisberg, 2020).

In a study by O'Donovan *et al.* (2025), conducted across multiple LMICs, including Kenya, Uganda, Nigeria, India, and Bangladesh, participants were drawn from integrated community health worker (CHW) programs. The researchers employed a systematic review, a rigorous method involving the structured identification, appraisal, and synthesis of all relevant studies on the subject. Using predefined inclusion and exclusion criteria, they collated evidence on CHW program outcomes, critically assessed study quality, and extracted comparable cost-effectiveness data. This was followed by a cost-effectiveness analysis and the application of meta-analytic techniques to pool results across diverse contexts, thereby enhancing reliability and reducing bias compared to single-study findings. The study reported favourable cost-effectiveness ratios ranging from \$34 to \$181 per life-year gained, demonstrating that integrated CHW programs consistently outperform standard care in delivering both health and economic value. These findings highlight the potential to scale up CHW programs in South Africa to address rural health disparities and strengthen primary healthcare delivery, particularly in underserved regions, by leveraging proven, cost-effective strategies from comparable LMIC contexts.

In a study by Khetan *et al.* (2019), conducted in rural Karnataka, India, participants were drawn from individuals with cardiovascular risk factors. The researchers employed a cluster-randomised controlled trial (CRCT) design, in which entire communities, rather than individual participants, were randomly assigned to the intervention or control arm. This design is particularly appropriate for public health interventions, as it reflects community-level service delivery and prevents contamination that could occur if individuals in the same community were exposed to different treatments. In the intervention clusters, trained community health workers

delivered health screenings, counselling, and follow-up support, while the control clusters continued to receive standard care. Data were collected through baseline screenings and follow-up assessments, and statistical analyses were conducted to compare outcomes across the clusters and identify similarities within each group. The findings revealed that the community health worker-based approach significantly improved the control of cardiovascular risk factors, leading to better health outcomes. The results highlight the effectiveness and cost-efficiency of community health worker programs in managing chronic diseases in LMICs and offer important insights for South Africa in tackling its growing burden of non-communicable diseases.

In a study conducted at the University of Cologne (2021) in the *Gesundes Kinzigtal* region of Germany, participants were drawn from a population enrolled in an integrated care model. The researchers employed a comparative analysis, evaluating health outcomes and healthcare costs between the integrated care region and 13 structurally comparable control regions. Data were analysed to assess differences in healthcare expenditure and quality indicators. The study found that the integrated care model resulted in a 6% reduction in healthcare expenditure compared to expected costs, alongside improvements in health outcomes and service quality. These findings highlight the potential of integrated care models to enhance efficiency and quality in healthcare delivery, providing valuable insights for South Africa's efforts to reform its healthcare system.

In a study by Bertone *et al.* (2016), conducted in Sierra Leone, participants were drawn from primary healthcare workers across rural clinics. The researchers employed a mixed-methods approach, collecting data through structured interviews and longitudinal logbooks to examine the effects of performance-based financing (PBF) on healthcare delivery. Data were analysed using descriptive statistics and thematic analysis to assess perceptions of incentives and their impact on service quality. The study found that PBF accounted for approximately 10% of health workers' total income and was perceived positively despite payment delays. These findings suggest that financial incentives can motivate healthcare providers in resource-constrained settings, such as in South Africa's public health sector.

In a study by Bowser *et al.* (2015), conducted in Mozambique, participants were drawn from community health workers involved in maternal and child health programs. The

researchers employed a cost-effectiveness analysis, using program expenditure data and service delivery metrics collected between 2010 and 2012. Data were analysed to calculate incremental cost-effectiveness ratios per beneficiary. The study found that the community health worker program cost \$47.12 per beneficiary, compared with the status quo of no community health worker intervention, in Mozambique's maternal and child health services. In other words, the study compared the costs and outcomes of the CHW program with those of relying solely on existing facility-based health services without CHW involvement. These findings suggest that community-based models could play a crucial role in enhancing healthcare access and efficiency in underserved areas of South Africa, providing a scalable and sustainable approach to improving maternal and child health outcomes.

In a study by Guimarães *et al.* (2025) conducted in Mozambique, participants were recruited from infants at risk of respiratory infections. The researchers employed a modelling approach to assess the cost-effectiveness of maternal vaccination and long-acting monoclonal antibodies, using epidemiological and economic data to simulate outcomes. Data were analysed through scenario modelling to estimate the number of deaths averted and the costs per life-year gained. The study found that these interventions could prevent substantial infant mortality, with cost-effectiveness dependent on pricing and coverage levels. These findings underscore the importance of integrating cost-effective preventive strategies into South Africa's immunisation programs to improve child health outcomes.

2.8 Literature and Knowledge Gaps

Although substantial research has explored VBC as a strategy for controlling healthcare costs, there remains a significant gap in its application within LMICs, particularly in South Africa. Most existing studies focus on traditional cost-containment measures, such as budget reductions and fee-for-service limitations, rather than innovative approaches, such as VBC, which prioritise patient outcomes, care coordination, and cost efficiency (Khalil & Ali, 2021; Munyewende & Guse, 2020). The integration of VBC theory with Health Economics theory remains underdeveloped in South Africa, particularly in the dualistic healthcare system, where private medical schemes coexist with under-resourced public facilities. Research rarely considers how patient preferences, provider incentives, infrastructure constraints, and regulatory

frameworks influence the adoption of VBC, leaving a critical gap in understanding how these models can improve both health outcomes and financial sustainability in resource-constrained settings.

Thus, global trends indicate a growing emphasis on hybrid care models that integrate digital health technologies, outcome-based payment structures, and coordinated care pathways. In South Africa, medical schemes are a key platform for operationalising VBC by incentivising quality, efficiency, and preventive care, particularly for managing chronic conditions and high-cost interventions. Digital platforms, telemedicine, and real-time analytics are emerging as enablers that can support outcome measurement, streamline care delivery, and reduce administrative inefficiencies.

2.9 Chapter Summary

This chapter has provided a comprehensive review of the existing literature on VBC and its application in the healthcare sector, with a particular focus on the South African context. It has explored the theoretical underpinnings of VBC, shedding light on its global adoption and the challenges of implementing such models, particularly in resource-constrained environments such as South Africa. The review also examined various strategies for mitigating healthcare costs, emphasising the potential of VBC in optimising both clinical outcomes and financial sustainability. Furthermore, by analysing empirical studies and contextualising the collaboration between PPO Serve and a closed medical aid scheme, this chapter has set the stage for evaluating the effectiveness of VBC in addressing rising healthcare costs.

In Chapter Three, the research design and methodology will be discussed, covering the research philosophy, sampling strategy, data collection instruments, and analysis techniques used to investigate the implementation and impact of VBC on healthcare costs and service delivery in South Africa.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the study's research design and methodology, providing a detailed account of the approaches, techniques, and procedures employed to collect and analyse data. The chapter begins by defining the research design, which serves as the blueprint for conducting the study. It then discusses the research paradigm, methodology, and data collection methods to ensure alignment with the study's objectives. Furthermore, the chapter describes the sampling strategy, data analysis techniques, and ethical considerations taken into account to maintain research integrity. By systematically detailing these methodological aspects, this chapter ensures the reliability, validity, and trustworthiness of the findings, thereby laying a solid foundation for the study's empirical investigation. The thrust is to evaluate whether VBC can reduce healthcare costs without compromising the quality of care within the South African healthcare system.

The study adopted the Research Onion Model, as proposed by Saunders, Lewis, and Thornhill (2019), to systematically guide the research process, illustrated below.

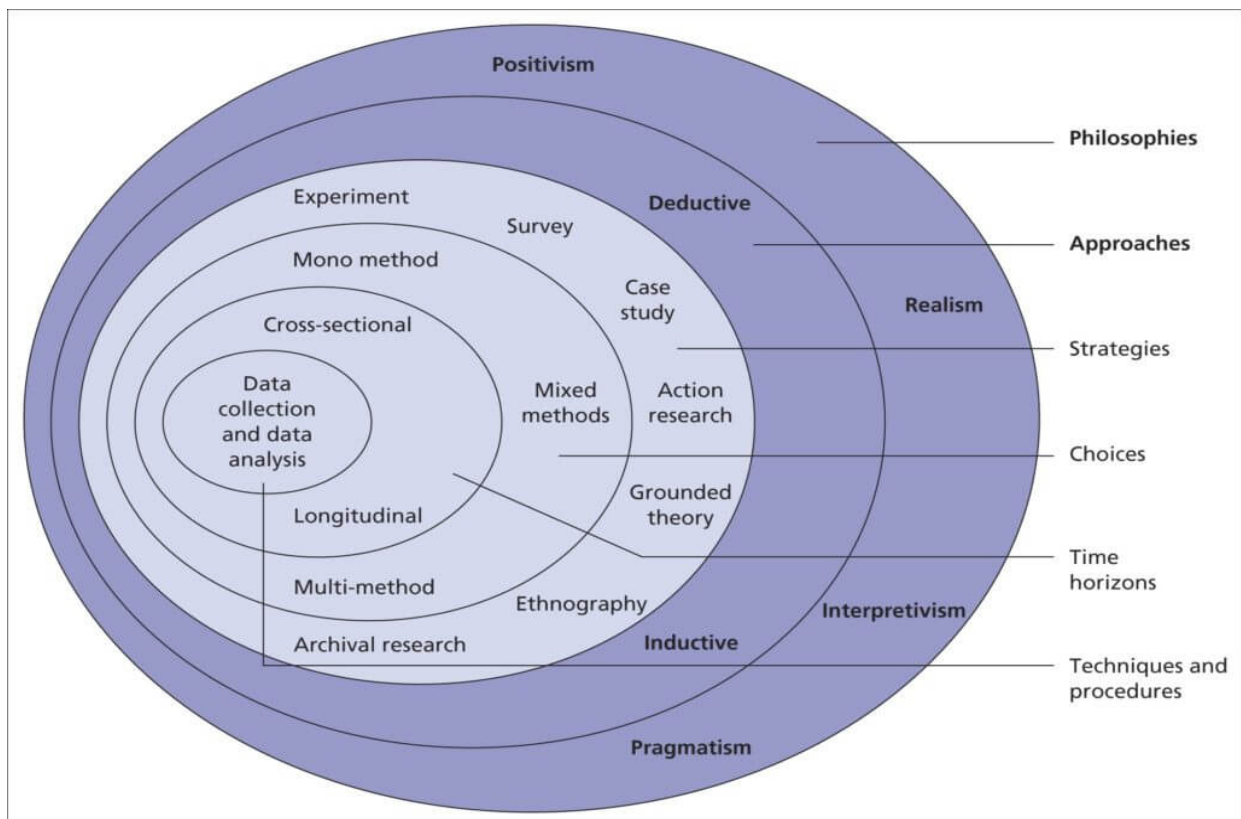


Figure 3.1: Research Onion (Saunders *et al.*, 2019).

The Research Onion is a structured framework that supports the step-by-step development of a research methodology, ensuring coherence among the research philosophy, approach, strategy, time horizon, and data collection methods (Creswell, 2021).

However, the study adhered to the research onion and developed the research framework, which is illustrated in Figure 3.1 below;

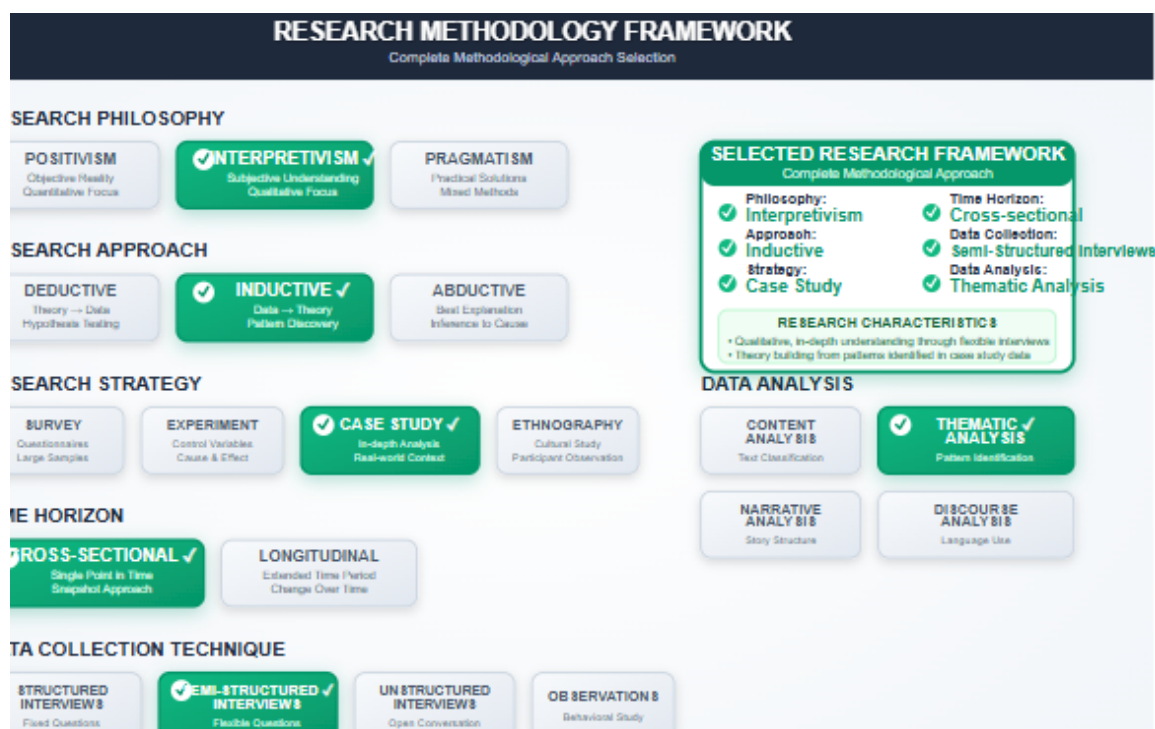


Figure 3.2: Research Framework (Own Compilation).

As shown in Figure 3.1, the research framework consists of six layers: (1) Research Philosophy, which underpins the study's epistemological and ontological stance; (2) Research Approach, which determines whether the study is inductive, deductive, or abductive; (3) Research Strategy, which defines the overall methodological approach, such as case study or survey; (4) Research Choice, which refers to whether a qualitative, quantitative, or mixed-methods approach is used; (5) Time Horizon, which distinguishes between cross-sectional and longitudinal studies; and (6) Data Collection Methods, which encompass techniques such as interviews, surveys, and document analysis (Saunders *et al.*, 2019; Creswell, 2021).

3.2 Research Philosophy

Research philosophy refers to the fundamental system of beliefs and assumptions that guide the research process, affecting how knowledge is acquired, interpreted, and applied (Creswell, 2021). It establishes the ontological (nature of reality), epistemological (nature of knowledge), and methodological (approach to inquiry) foundations of a study (Kumar, 2020). Research philosophies are among the most commonly adopted paradigms in academic research (Creswell, 2021). Positivism emphasises observable facts, whereas realism combines both observable facts and subjective experiences (Creswell, 2021). Pragmatism emphasises practical problem-solving by mixing different methodologies (Creswell, 2021). However, this study adopted an interpretivist research philosophy, which is better suited to exploring the complexities of human interactions, perceptions, and institutional structures in the context of VBC implementation in South Africa's private healthcare sector.

3.2.1 Interpretivism paradigm

The interpretivist paradigm is influenced and grounded in the notion that reality is socially constructed and shaped by individual experiences and contextual influences, rather than being universally fixed (Flick, 2022). This philosophy aligns with qualitative research, which seeks to understand subjective meanings rather than merely quantify phenomena (Babbie, 2021). Interpretivism is particularly relevant to this study because the efficacy of VBC in mitigating rising healthcare costs depends on perceptions, including those of healthcare providers, policymakers, and patients. Unlike positivism, which relies on numerical data and generalizable findings, interpretivism is an in-depth exploration of human behaviour, institutional dynamics, and decision-making processes (Silverman, 2020). By adopting this paradigm, the study captures nuanced insights into the challenges and opportunities surrounding VBC in a resource-constrained yet evolving healthcare environment.

3.2.1.1 Rationale for adopting the interpretivism paradigm

The interpretivist approach was adopted as it enables a context-specific understanding of how VBC operates within South Africa's healthcare system. This perspective accommodates multiple realities, ensuring that findings reflect stakeholders' lived

experiences rather than imposing rigid, predefined assumptions (Maree, 2020). Through qualitative methods such as interviews and case studies, the study uncovers practical challenges, policy implications, and financial considerations that shape the adoption of VBC. The flexibility of interpretivism ensures that the study remains responsive to emerging themes and diverse perspectives, ultimately contributing to a holistic evaluation of VBC's effectiveness in managing healthcare costs. By integrating expert opinions and institutional insights, this research philosophy ensures that conclusions are not only theoretically sound but also practically relevant for healthcare decision-makers in South Africa.

3.3 Research Approach

A research approach refers to the reasoning process that guides the generation and interpretation of knowledge in a study. The three primary research approaches are deductive, inductive, and abductive (Creswell, 2021). Deductive reasoning is often associated with quantitative research. Abductive reasoning involves generating the most plausible explanation from incomplete information and is frequently used in exploratory studies (Flick, 2022). Inductive reasoning, adopted in this study, follows a bottom-up approach in which patterns and themes emerge from data collection and analysis rather than being tested against pre-existing theories (Kumar, 2020). This approach is commonly associated with qualitative research and is well-suited to exploring complex social and institutional phenomena, such as VBC in South Africa's private healthcare system.

3.3.1 Inductive approach

The inductive approach is particularly relevant to this study, as it enables the development of insights from empirical observations, focusing on the experiences and perspectives of key stakeholders in VBC implementation (Babbie, 2021). Rather than beginning with a hypothesis, this study gathers rich qualitative data through interviews, case studies, and document analysis, thereby allowing themes to emerge naturally (Maree, 2020). By using PPO Serve's collaboration with a closed medical aid scheme, a private health insurance plan that restricts membership to specific employers and their employees or groups rather than being open to the general public, as a case study, the research examines how VBC operates in a real-world setting and how

stakeholders perceive its financial and clinical impact. This process aligns with interpretivism, as it acknowledges multiple realities and contextual influences rather than imposing predefined categories (Silverman, 2020).

3.3.1.1 Rationale for adopting inductive reasoning

The adoption of an inductive research approach enabled the study to ensure flexibility in exploring new insights and adapting to emerging patterns throughout the research process. This is particularly important for assessing healthcare cost mitigation, as institutional policies, market forces, and provider behaviours continuously evolve (Flick, 2022). The findings will contribute to a deeper theoretical understanding of VBC in South Africa future frameworks and best practices for cost-effective healthcare delivery (Creswell, 2021).

3.4 Research Strategy

A research strategy is the overall plan that outlines how a study is conducted to achieve its objectives. It provides a structured approach to data collection, analysis, and interpretation, ensuring that the research questions are effectively addressed (Creswell, 2021). The choice of research strategy depends on factors such as the research philosophy, approach, and the nature of the study (Kumar, 2020). Given the exploratory nature of this study, a case study research strategy has been adopted. A case study is beneficial when investigating contemporary real-life phenomena in depth, especially within complex social or institutional contexts (Flick, 2022).

3.4.1 Case study strategy

A case study is a qualitative research strategy that involves an in-depth investigation of a particular case, event, organisation, or system within its real-world context (Silverman, 2020). The case study strategy allows researchers to explore phenomena holistically, incorporating multiple data sources such as interviews, observations, and document analysis (Babbie, 2021). Unlike experimental or survey strategies, case studies provide rich, contextual insights that capture the complexities of human interactions, institutional processes, and systemic challenges (Maree, 2020). Case studies can be single- or multiple-case, with single-case studies offering in-depth insights into a single instance and multiple-case studies providing a broader

perspective. In addition, multiple-case multiple-case studies compare and contrast cases to derive broader conclusions (Creswell, 2021). The case study of this research is PPO Serve in Johannesburg.

3.4.1.1 Rationale for adopting case study strategy

This study employs a single-case design, focusing on PPO Serve, a Johannesburg-based healthcare management company established in 2015. While comparative multi-case designs can enhance generalisability, a single-case approach enables an in-depth, context-sensitive exploration of the implementation of value-based care within a real-world organisational setting. PPO Serve is dedicated to transforming South Africa's healthcare system by promoting affordable and accessible care through value-based models (Babbie, 2020). The organisation collaborates with medical schemes, such as the Government Employees Medical Scheme (GEMS), to implement innovative care models that prioritise patient outcomes over service volume. PPO Serve's flagship initiative is the VCT model, which began as a pilot in Pretoria North in 2019. This model replaces traditional fee-for-service payment structures with a capitation-based system, encouraging multidisciplinary teams to provide proactive, coordinated care (Walliman, 2021). The VCT model has shown promising results, including reduced hospital admissions and improved management of chronic diseases.

The rationale for selecting this case study is its ability to provide detailed, context-specific insights that might be overlooked in broader quantitative research (Kumar, 2020). By examining PPO Serve's collaboration with a closed medical aid scheme, the study aims to understand the practical challenges and successes of implementing value-based care in the South African private healthcare sector. This approach aligns with the interpretivist paradigm and inductive research methodology, ensuring that the study captures the perspectives of key stakeholders, such as healthcare providers, policymakers, and medical scheme administrators (Flick, 2022). By focusing on a real-world example, the study contributes valuable insights into how value-based care can be effectively adapted to address financial sustainability and improve healthcare outcomes within South Africa's unique healthcare landscape.

3.5 Methodological Choices

Methodological choices are the selection of research methods that guide data collection and analysis. These choices are influenced by the research philosophy, approach, and strategy, ensuring coherence in addressing the research objectives (Creswell, 2021). Broadly, methodological choices fall into three categories: quantitative, qualitative, and mixed-methods (Kumar, 2020). Quantitative methods emphasise numerical data and statistical analysis, while qualitative methods focus on subjective meanings, experiences, and context-specific insights (Silverman, 2020). Mixed-methods research combines both approaches to provide a more comprehensive understanding of the phenomenon under study (Flick, 2022).

3.5.1 Qualitative research methodology

This study approach aligns with the interpretivist paradigm and an inductive research design. A qualitative methodology is well-suited to exploring the complexity of VBC in mitigating healthcare costs, as it enables in-depth investigation of stakeholder perceptions, experiences, and challenges (Babbie, 2021). Unlike quantitative methods that focus on measuring predefined variables, qualitative research captures rich, descriptive data that reflect real-world perspectives (Maree, 2020). Given that this study employs a case study strategy, qualitative methods such as interviews, document analysis, and thematic analysis are best suited to capturing contextual insights into VBC implementation in the South African private healthcare sector.

3.5.1.1 Rationale for adopting qualitative research methodology

The rationale for selecting a qualitative methodological approach is that VBC is an evolving healthcare model in South Africa since 2019, requiring a deep understanding of its practical application, challenges, and impact. By focusing on subjective experiences and institutional processes, this approach enables the study to uncover patterns, relationships, and emerging themes that contribute to the body of knowledge on healthcare cost containment and financial sustainability (Flick, 2022). Additionally, a qualitative approach allows for flexibility in data collection and analysis, ensuring that insights remain relevant and adaptable to the dynamic nature of healthcare systems (Creswell, 2021).

3.6 Time Horizon

The time horizon in research refers to the temporal framework within which data are collected and analysed. It is an important aspect of the research design, as it helps determine how data will be collected over time and what type of conclusions can be drawn from that data (Saunders, Lewis, & Thornhill, 2019). Time horizon can be classified into two primary categories: cross-sectional and longitudinal (Creswell, 2021). A cross-sectional time horizon involves studying a phenomenon at a single point in time, while a longitudinal time horizon examines changes or developments over an extended period (Flick, 2022). The choice of time horizon depends on the nature of the research problem, objectives, and the type of data needed for analysis.

For this study, a cross-sectional time horizon is adopted to assess the effectiveness of VBC in mitigating healthcare costs within the South African private healthcare system, with particular focus on PPO Serve. The study gathered data from stakeholders involved in the implementation of VBC at a single point in time, providing a snapshot of their experiences, challenges, and perspectives regarding its financial and clinical impact. This approach aligns with the case study strategy employed in this research, which involves an in-depth exploration of a phenomenon in a specific setting (Maree, 2020).

A cross-sectional time horizon is appropriate because it is for extended timeframes. Given that this research focuses on the efficacy of VBC at a particular point in time, it seeks to identify immediate issues, benefits, and areas for improvement. The use of a cross-sectional approach is also practical given resource constraints and time limitations, as it facilitates a comprehensive analysis of the phenomenon within the available study period (Silverman, 2020).

3.7 Techniques and Procedures

The techniques and procedures used in a research study refer to the specific methods and processes employed to collect, analyse, and interpret data. These techniques are essential in ensuring the validity and reliability of the research findings. The choice of techniques and procedures depends on the research design, research philosophy, and the study (Creswell, 2021). The techniques and procedures, such as the sampling

strategy, data collection methods, data analysis methods, and the study's trustworthiness.

3.7.1 Target population and sampling strategy

The choice of population is important for the relevance and insight of the data to be collected (Maree, 2020). In this study, the total population comprises all employees of PPO Serve, including administrative staff, management personnel, medical practitioners, and nurses across all offices in South Africa, totalling approximately 128 individuals. This population represents the complete set of personnel who could potentially provide insights into the implementation and management of Value-Based Care (VBC) within the organisation.

The target population, however, consists of 42 employees based in Johannesburg who are directly involved in the implementation and management of VBC. This group includes managerial and non-managerial staff, medical practitioners, and nurses with at least 6 months of experience in their current roles, ensuring familiarity with operational practices and VBC processes. Johannesburg, as South Africa's largest metropolitan area, presents a diverse healthcare environment, ranging from well-resourced private hospitals to under-resourced public facilities. The organisational structure of PPO Serve facilitates coordinated care delivery, with multidisciplinary teams working collaboratively to implement VBC initiatives effectively. The organogram of PPO Serve's structure is illustrated in Figure 3.3 below;

PPO Serve Organogram

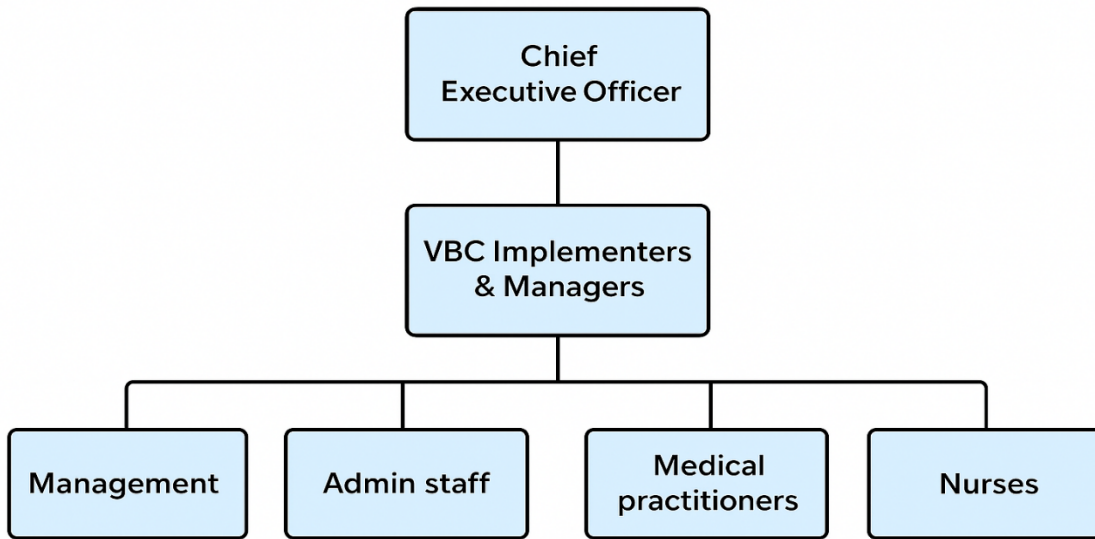


Figure 3.3: PPO Serve Organogram (Source: Own Illustration).

In this study, the target population comprises healthcare personnel, both managerial and non-managerial, at PPO Serve in Johannesburg who are involved in the implementation and management of VBC within Johannesburg's healthcare system. This target population encompasses approximately 42 individuals. Johannesburg, as South Africa's largest metropolitan area, presents a diverse healthcare landscape, offering a range of healthcare organisations from well-resourced private hospitals to resource-constrained public healthcare entities.

3.7.1.1 Sampling strategy

Sampling is the process of selecting a subset of individuals or units from a larger population to draw inferences or gather insights about the entire population (Babbie, 2020). In research, sampling enables researchers to collect data from a manageable number of participants while still yielding relevant and generalizable results (Maree, 2020). The sampling strategy is crucial for ensuring that the research findings are credible, reliable, and meaningful in addressing the research question. There are two main types of sampling strategies: probability sampling and non-probability sampling. This study employed a non-probability sampling strategy, as it was deemed suitable for capturing the perspectives of specific individuals directly involved in the

implementation and management of VBC within PPO Serve in Johannesburg (Babbie, 2021).

- **Non-probability strategy**

Non-probability sampling refers to a sampling technique in which individuals do not have an equal probability of selection. Unlike probability sampling methods, non-probability sampling does not rely on random selection; instead, participants are chosen based on specific characteristics or the researcher's judgment (Flick, 2022). One commonly used non-probability sampling method is purposive sampling, in which participants possess specific knowledge or experience related to the research topic (Creswell, 2021). In this study, purposive sampling was employed to recruit healthcare administrators, clinicians, and policymakers directly involved in implementing VBC practices within the Johannesburg healthcare system. This enables an in-depth exploration of their experiences, challenges, and insights regarding VBC.

- **Rationale for adopting a non-probability strategy**

The adoption of a non-probability sampling strategy, particularly purposive sampling, is justified given the study's specific focus on healthcare professionals and administrators with relevant expertise in VBC. Since the research aims to gather detailed, contextualised insights into the implementation of VBC within PPO Serve, purposive sampling enables the researcher to select individuals who possess direct knowledge and experience of the subject matter, ensuring the data collected is rich and relevant (Maree, 2020). In this context, rich data refers to information that is deep, nuanced, and comprehensive, capturing participants' lived experiences, perceptions, and insights in detail (Creswell, 2021). This approach is beneficial in qualitative research, where the goal is to gain a deep understanding of participants' experiences and perceptions, rather than to generalise findings to a larger population (Babbie, 2021). Therefore, purposive sampling aligns well with the study's objectives, providing targeted and valuable data for evaluating the efficacy of VBC in mitigating rising healthcare costs.

3.7.1.2 Inclusion and exclusion criteria

To ensure that the collected data is relevant, credible, and reflective of the operational realities of VBC implementation within PPO Serve, clear and explicit inclusion and exclusion criteria were established. These criteria guide the selection of participants who can provide meaningful insights into the study objectives.

- **Inclusion Criteria**

Participants were included in the study if they met the following conditions:

- i. Healthcare personnel, including both managerial and non-managerial staff, are actively involved in VBC processes.
- ii. Individuals with a minimum of six months' experience in their current role within PPO Serve, ensuring familiarity with operational practices and VBC implementation.
- iii. Staff members who are willing and able to provide informed consent to participate in the study.
- iv. Personnel across different departments (clinical, administrative, and policy-oriented) to capture a comprehensive perspective on VBC practices and challenges.

- **Exclusion Criteria**

Participants were excluded if they did not meet the inclusion criteria or if their participation could compromise data quality:

- i. Staff not directly involved in VBC implementation or oversight.
- ii. Personnel with less than six months' experience in their current role.
- iii. External contractors, temporary staff, or visiting professionals not employed by PPO Serve.
- iv. Individuals unwilling or unable to provide informed consent.

The inclusion and exclusion criteria were carefully designed to prioritise participants with direct, practical knowledge of VBC operations, ensuring that the study captures rich, context-specific insights. This approach aligns with the study's qualitative

methodology, in which the depth and richness of information take precedence over broad generalisability (Maree, 2020; Creswell, 2021).

3.7.1.2 Sample size

Sample size refers to the number of participants selected from the target population for a research study (Maree, 2020). The sample size plays a critical role in determining the validity and reliability of the research findings. In qualitative research, the sample size is typically smaller compared to quantitative studies, as the focus is on obtaining in-depth insights rather than generalising results to a larger population. For this study, the sample size was determined by data saturation. Data saturation refers to the point at which no further insights can be gained from additional interviews or observations during qualitative data collection (Maree, 2020; Creswell, 2021). According to Maree (2020) and Creswell (2021), qualitative research often utilises small sample sizes to gather rich, contextual data. In a systematic review of studies with at least 10 participants, Hennink et al. (2021) found that saturation typically occurs with 9 to 17 interviews, particularly in studies with homogeneous populations and narrowly defined objectives.

3.7.2 Data collection methods

Data collection methods are the techniques used to gather information from participants, which are essential for answering research questions (Kumar, 2020). In qualitative research, standard data collection methods include interviews, focus groups, observations, and document analysis (Maree, 2020). For this study, semi-structured interviews were chosen as the primary data collection method.

Semi-structured interviews strike a balance between structured questions and the flexibility for participants to discuss their perspectives openly, making them particularly suitable for exploring the experiences and insights of healthcare professionals and administrators regarding the implementation of VBC (Creswell, 2021). The interviews were conducted in accordance with an interview guide (see Appendix B). The interview guide was developed based on the research questions, literature on VBC, and the study's specific objectives. It included both open-ended and specific questions to

explore participants' understanding, experiences, and challenges with VBC. The guide followed the structure below;

- **Section A:** Demographic details- collected to enhance contextual understanding and allow for the examination of how diverse participant backgrounds influence study findings.
- **Section B:** Current state of value-based care implementation at PPO
- **Section C:** Challenges faced by PPOs in implementing value-based care
- **Section D:** Interventions to enhance the value-based care

The interviews were conducted at the offices of PPO Serve in Johannesburg, face-to-face. They were recorded with participants' consent to ensure accurate data capture. Each interview session lasted between 45 minutes and 1 hour in length. The interviews employed a flexible approach, with the interviewer probing more deeply when participants raised key issues; the interviews were transcribed verbatim for analysis. Throughout the interview process, ethical considerations, including informed consent and confidentiality, were emphasised.

3.7.2.1 Data storage

Data storage refers to the systematic process of preserving, securing, and managing research data to maintain its accuracy, confidentiality, and integrity throughout the research cycle (Kumar, 2020). Data storage ensures that collected information is protected from unauthorised access, tampering, or loss, while remaining available for analysis, verification, and reporting (Creswell, 2021). In this study, all interview recordings, transcripts, and consent forms were securely managed in line with ethical standards. Digital data, including audio files and transcripts, was stored on password-protected, encrypted drives with secure cloud backups, while physical records, such as signed consent forms, were also backed up. Meanwhile, physical records, such as signed consent forms, were kept in a locked cabinet accessible only to the researcher. To ensure confidentiality, transcripts were anonymised by replacing identifying information with codes, and a separate master list was securely stored separately from the data. All research materials will be retained for five years and then permanently destroyed through secure deletion and shredding, ensuring compliance with ethical guidelines and the protection of participants' privacy.

3.7.3 Data analysis technique

Data analysis techniques are methods used to interpret and make sense of data collected during research, transforming raw data into meaningful patterns, themes, and conclusions (Maree, 2020). In qualitative research, data analysis often involves identifying recurring themes or patterns in the data, which can provide insights into the research questions (Creswell, 2021). For this study, thematic analysis was chosen as the primary technique for analysing the interview data, supported by NVivo 12 software. NVivo is a qualitative data analysis software that facilitates the organisation, coding, and interpretation of large volumes of textual, audio, and visual data to support systematic and rigorous analysis (Kumar, 2020; Creswell, 2021).

3.7.3.1 *Thematic analysis*

Thematic analysis is well-suited to identifying and analysing patterns in qualitative data, making it an appropriate method for understanding healthcare professionals' experiences and perceptions of VBC implementation (Flick, 2022). This method enables the researcher to identify themes related to challenges, perceptions, and the effectiveness of VBC in mitigating rising healthcare costs. The steps in thematic analysis for this study are as follows (Braun & Clarke, 2021):

- **Familiarisation with the data:** This involves transcribing the interview data verbatim and reading through the transcripts multiple times to gain a comprehensive understanding of the content.
- **Coding the data:** Significant phrases or ideas are highlighted, and codes are assigned to these excerpts. These codes represent the main ideas or concepts present in the data.
- **Grouping codes into categories:** Codes with similar meanings or related ideas are grouped into categories, forming the initial themes.
- **Reviewing themes:** The researcher reviews the initial themes to ensure that they accurately represent the data. Similar themes are merged, and overly broad themes are split into more specific ones if necessary.
- **Defining and naming themes:** Each theme is refined and clearly defined to capture its essence. The researcher ensures that the theme is a coherent and meaningful representation of the data.

- **Interpreting the themes:** The researcher interprets the identified themes in relation to the research questions and existing literature. This interpretation facilitates the drawing of conclusions about the research topic.
- **Reporting the findings:** The final step involves presenting the themes and their interpretations in a structured and coherent manner, highlighting the key findings related to the research questions.

The analysis was conducted using NVivo, which supported systematic coding and theme organisation, thereby ensuring rigour and transparency in the process. The software also facilitated the creation of a word cloud, which helped identify recurring concepts. Throughout the analysis, careful attention was paid to the contextual factors of the healthcare environment in Johannesburg, ensuring that the findings accurately reflected the specific challenges and dynamics of VBC in South Africa's healthcare sector (Babbie, 2021; Maree, 2020).

3.7.4 Pilot study

A pilot study was conducted to test the feasibility and effectiveness of the interview guide and data collection methods at the commencement of the primary research. A sample of two (2) participants was used in the pilot study and not included in the final interview. The aim was to assess the clarity of the interview questions, the suitability of the interview process, and the study's overall logistics. Feedback from these participants led to refinements in the interview guide, resulting in an improved question flow. The pilot study ensured that the research instruments were reliable and relevant, thereby enhancing the overall quality of the research (Creswell, 2021).

3.7.5 Validity and trustworthiness of the study

The trustworthiness of the study is crucial in ensuring that the findings are credible, dependable, and applicable (Saunders *et al.*, 2019). To establish trustworthiness, this study utilised strategies aligned with Lincoln and Guba's (1985) criteria for qualitative research: credibility, transferability, dependability, and confirmability.

3.7.5.1 Credibility

Credibility pertains to the accuracy and authenticity of the findings (Saunders et al., 2019). To enhance credibility and gather rich data, this study employed several validation techniques, including prolonged engagement, triangulation, and member checks. Prolonged engagement, allowing for sufficient time to understand their experiences and views thoroughly. Triangulation helped eliminate bias, while member checks involved participants reviewing and confirming their contributions to ensure the data accurately reflected their intended meanings. These strategies enhanced the trustworthiness of the research by capturing detailed, context-rich insights that genuinely represented participants' perspectives (Lincoln & Guba, 1985; Creswell, 2021).

3.7.5.2 Transferability

Transferability refers to the extent to which a study's findings can be applied to other contexts or settings (Saunders *et al.*, 2019). In this study, transferability was strengthened by the rich, detailed descriptions of the research context, participants, and processes. Rich descriptions capture detailed, nuanced accounts of participants' experiences, whereas thick descriptions situate those accounts within their broader social, cultural, and organisational contexts (Geertz, 1973; Lincoln & Guba, 1985). By providing such depth and context, particularly regarding the demographic and operational characteristics of healthcare professionals within Johannesburg, this study enables readers to assess the relevance and applicability of its findings to other healthcare settings (Maree, 2020).

3.7.5.3 Dependability

Dependability ensures that the research process is consistent and can be repeated in future studies (Saunders *et al.*, 2019). To enhance reliability, this study maintained a clear audit trail documenting the research procedures, decisions, and changes made throughout the study. This audit trail included records of the data collection process, interview guides, and the methods used for analysis. By documenting these processes in detail, the study enables other researchers to replicate the study and verify the findings under similar conditions (Lincoln & Guba, 1985; Flick, 2022).

3.7.5.4 Confirmability

Confirmability refers to the extent to which the findings are shaped by the data rather than by the researcher's bias or subjective interpretation (Saunders *et al.*, 2019). To enhance confirmability, this study employed reflective journaling and triangulation. Reflective journaling involves the researcher keeping a continuous record of personal thoughts, decisions, and potential biases throughout the research process, which helps in recognising and minimising subjective influence on the data (Ortlipp, 2008; Creswell, 2021). Triangulation refers to the use of multiple data sources or methods to cross-check and corroborate findings, thereby enhancing the validity and trustworthiness of the results (Denzin, 1978; Creswell, 2021). Triangulation involved cross-checking interview data with secondary sources, such as healthcare reports, to corroborate the study's conclusions. These measures helped ensure that the findings were objective and data-driven (Lincoln & Guba, 1985; Creswell, 2021).

3.8 Limitations of the study

This study, while comprehensive, faced several limitations that may have influenced the findings. First, the study focused on a specific geographical location, Johannesburg, and was limited to the implementation of VBC within PPO Serve's partnership with a South African medical aid scheme. Although PPO Serve's VCT model is active in select regions of Gauteng, parts of KwaZulu-Natal, and the Eastern Cape, its overall geographic coverage in South Africa remains limited. This geographic and organisational focus may not be generalizable to other regions in South Africa or other countries, where healthcare systems and policies may differ significantly. Additionally, the research was conducted within a framework that may not apply to healthcare systems with different structures, resources, or challenges.

More so, another limitation was the sample size. Although the study aimed to explore a diverse range of perspectives by including healthcare professionals, administrators, and policymakers, the sample size was relatively small ($n = 10$), which may have limited the diversity of viewpoints. A larger sample might have provided more comprehensive insights and allowed for broader generalisations. Furthermore, because of purposive sampling, the study relied on a select group of participants,

which may introduce bias, as it may not have captured the full range of experiences and opinions related to VBC implementation.

Also, the study's reliance on qualitative methods, including interviews and document analysis, may have introduced subjectivity in data interpretation and limited data triangulation. While steps were taken to ensure credibility and confirmability, such as member checks and triangulation, the subjective nature of qualitative research means that the researcher's interpretations, which in turn influence the findings, are subjective. Despite these limitations, the study provided valuable insights into the challenges and opportunities associated with VBC in South Africa, particularly within the context of a metropolitan healthcare system such as Johannesburg.

3.9 Elimination of bias

To ensure the validity and reliability of the findings, several strategies were implemented to minimise bias in this study. First, the researcher employed a rigorous participant selection process, using purposive sampling to ensure that individuals with relevant experience and knowledge of VBC implementation were included. However, to mitigate selection bias, the researcher sought to recruit a diverse group of participants with varied roles, thereby ensuring a broad range of perspectives.

Additionally, to reduce interviewer bias, a semi-structured interview guide was used. This enabled consistent questioning across participants while allowing them to express their views in detail. The researcher maintained neutrality and avoided leading questions, ensuring that the researcher's opinions or preferences were not introduced. To further limit personal bias in the analysis, triangulation was employed by using multiple data sources, including interviews, thematic analysis, and document analysis. To further limit personal bias in the analysis, triangulation was employed by utilising multiple data sources, including interviews, thematic analysis, and document analysis, thereby ensuring that findings were corroborated across data types.

Additionally, member checks were conducted, in which participants were given the opportunity to review the data and the interpretations derived from their interviews. This helped ensure that the researcher accurately represented the participants' perspectives and that no personal bias skewed the findings. Through these methods,

the study aimed to eliminate bias and enhance the trustworthiness and credibility of the results.

3.10 Ethical considerations

Ethical considerations in research are vital to ensure responsible conduct, safeguarding participants' rights and well-being while maintaining research integrity (Creswell, 2021). In this study, ethical considerations were implemented by adhering to the principles of informed consent, confidentiality, anonymity, and avoiding harm to participants. Ethical guidelines were strictly followed throughout the study to ensure the dignity and privacy of all participants were upheld. Ethical approval for this study was obtained from the North-West University Ethics Committee under clearance number [NWU-00687-25-A4] before data collection began (See Ethical Clearance Certificate, Appendix D). This approval confirmed that the study met all ethical standards for research involving human participants.

Additionally, the study complied with South Africa's Protection of Personal Information Act (POPIA), which requires that personal information be collected, processed, and stored transparently, with participants' explicit consent. The study also adhered to ethical guidelines outlined in the National Health Act (NHA) for research involving human participants, ensuring respect for persons, beneficence, and justice. By adhering to these legal and ethical frameworks, the study safeguarded participants' privacy, upheld the dignity of all individuals involved, and maintained the integrity and trustworthiness of the research process (Department of Health, 2024).

3.10.1 Ensuring informed consent

Ensuring informed consent was a critical aspect of this study. Participants were provided with clear and comprehensive information about the study's purpose, procedures, potential risks, and benefits. This process ensured that participants fully understood their role and voluntarily agreed to participate in the study (Babbie, 2021). Written consent forms were distributed to participants, and their consent was documented. The study emphasised that participation was voluntary and that individuals could withdraw at any time without any consequences.

3.10.2 Ensuring confidentiality and anonymity

To protect participants' privacy, confidentiality and anonymity were strictly maintained throughout the research process. Personal identifiers were removed from the data, and all responses were anonymised to ensure that no individual's responses could be traced back to them. Data were stored securely, and access was restricted to the research team to prevent unauthorised access (Silverman, 2020). By anonymising the data and maintaining confidentiality, the study ensured that participants felt comfortable sharing their experiences without fear of repercussions.

3.10.3 Ensuring no harm to the participants

The study also ensured that participants experienced no harm during the research process. All questions in the interview guide were designed to be respectful and non-intrusive, focusing only on professional experiences related to the implementation of Value-Based Care. Furthermore, participants were assured that their responses would not affect their professional standing or relationships with their organisations.

3.10.4 Ensuring permission was obtained

Lastly, permission was obtained from relevant authorities, including organisational leaders and ethics committees, before conducting the research. This ensured that the study adhered to institutional and ethical guidelines, protecting both participants and the research process (Flick, 2022). These measures ensured that the study was conducted responsibly and ethically.

3.11 Chapter Summary

This chapter outlined the study's research design and methodology, structured according to the research onion framework. The research adopted an interpretivist philosophy, which focuses on understanding the subjective experiences and perceptions of individuals involved in VBC within Johannesburg's healthcare system. An inductive approach was employed to develop a theory from the collected data, and a case study strategy was adopted to examine the implementation of VBC through PPO Serve's partnership with a South African medical aid scheme.

The chapter also discussed the methodological choices, including a purposive sampling strategy and semi-structured interviews as the primary data collection methods. Ethical considerations, such as obtaining informed consent, maintaining confidentiality, and minimising harm to participants, were incorporated to ensure that the study adhered to ethical guidelines. Data analysis followed a thematic approach to identify patterns and themes within the interview data. The study's limitations were also acknowledged to ensure transparency. The use of the research onion provided a clear, structured approach to address the research objectives effectively. However, in the next chapter (Chapter Four), the findings will be presented and discussed.

CHAPTER FOUR: EMPIRICAL INVESTIGATION

4.1 Introduction

This chapter presents a comprehensive discussion and interpretation of the empirical data collected during the qualitative phase of the study. As established in Chapter One, the central aim of this research was to investigate the structure, implementation, outcomes, and challenges of Value-Based Care within PPO Serve, against the backdrop of escalating healthcare costs and inefficiencies inherent in fee-for-service models. Chapter Two deepened the theoretical foundation by reviewing extant literature on the principles, models, and global adaptations of VBC, highlighting its potential to enhance quality, patient satisfaction, and cost efficiency (Zhang *et al.*, 2024). Chapter Three outlined the qualitative methodology employed, using semi-structured interviews with key stakeholders to generate context-specific insights.

This chapter, therefore, synthesises the primary data using thematic analysis, as recommended by Braun and Clarke (2021), to identify and interpret emergent themes in relation to the study's four research objectives. The discussion is guided by a constructivist epistemology, assuming that knowledge is co-created through social interactions and experiences (Creswell, 2021). The chapter begins with an overview

of participant demographics to contextualise their perspectives, followed by a thematic discussion aligned to the following objectives:

- To explore the current state of value-based care implementation at PPO and its effect on patient health outcomes.
- To ascertain the challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape of South Africa.
- To determine the effectiveness of the implementation of Value-Based Care in mitigating rising healthcare costs in South Africa.
- To determine the interventions to enhance the value-based care implementation at PPO Serve.

The chapter begins by examining the demographic details and discussing the findings in relation to the research objectives.

4.2 Research Findings

This section presents and interprets the empirical findings from the data collected in this study. The section begins with an overview of the participants' demographic characteristics, providing context for the subsequent analysis. The findings are then organised thematically and discussed in line with the study's research objectives and the order in which data were collected. The thematic analysis reflects participants' views on implementing VBC within PPO Serve, supported by relevant literature to enhance the interpretation of results and show how the themes connect to the broader framework of VBC delivery in South Africa.

Figure 4.1 illustrates the structure of Section 4.2.2, which presents the study's research findings. The section begins with the participants' demographic profile, followed by thematic findings aligned with the research objectives.

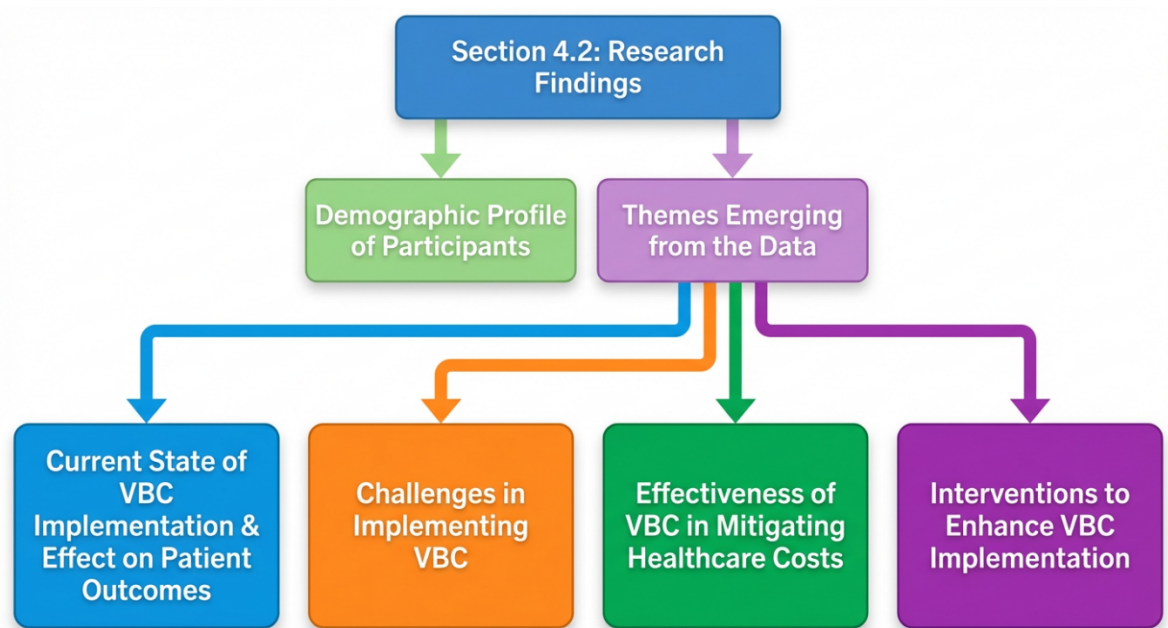


Figure 4.1: Research Findings Framework (Source: Own Compilation)

As shown in Figure 4.1, the section is structured into two main parts. The first part outlines the Demographic Profile of Participants, while the second part presents the Themes Emerging from the Data, discussed under four sub-themes: (1) the current state of VBC implementation and its effect on patient health outcomes, (2) challenges in implementing VBC, (3) effectiveness of VBC in mitigating rising healthcare costs, and (4) interventions to enhance VBC implementation.

4.2.1 Demographic Details

Participants' demographic characteristics provide a critical context for understanding the depth and diversity of the insights shared (Saunders *et al.*, 2019). The constructs such as gender, age, professional role, years of experience, and educational attainment contribute to the richness of the data, reflecting a multidimensional understanding of the VBC implementation process (Kumar, 2024).

4.2.1.1 Interview request turnout

The study included 12 participants. The response rate is shown in Figure 4.2.

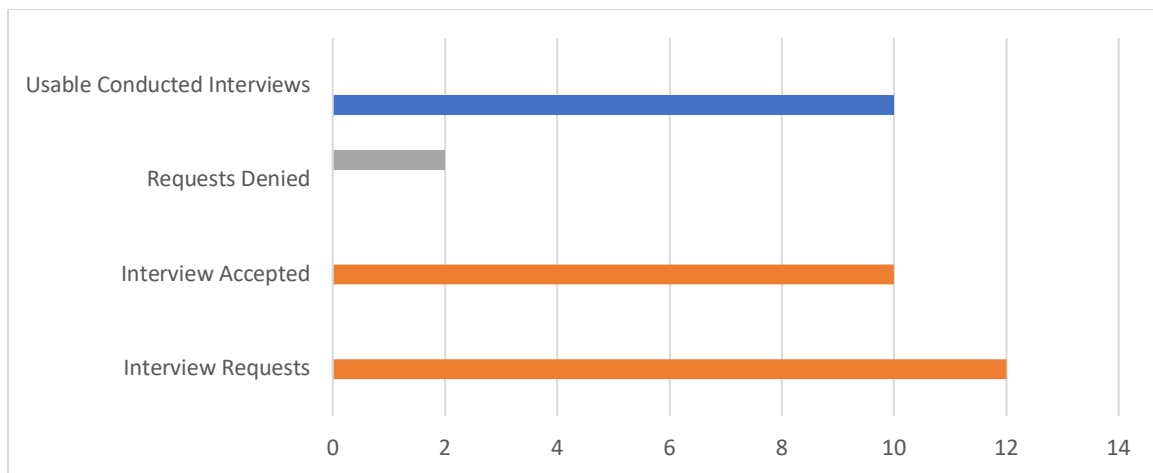


Figure 4.2: Interview request turnout (Source: Own Compilation)

As depicted in Figure 4.2, of 12 individuals approached for participation, comprising both clinical and administrative personnel, 10 consented and participated in the interviews. This culminated in an 83.3% response rate, which is robust by qualitative research standards, indicating thematic adequacy and saturation. As Walliman (2021) asserts, this often occurs between six and twelve interviews in focused qualitative studies.

4.2.1.2 Gender composition of participants

The study also examines the gender composition of the participants involved. The representation of genders is illustrated in Figure 4.3 below:

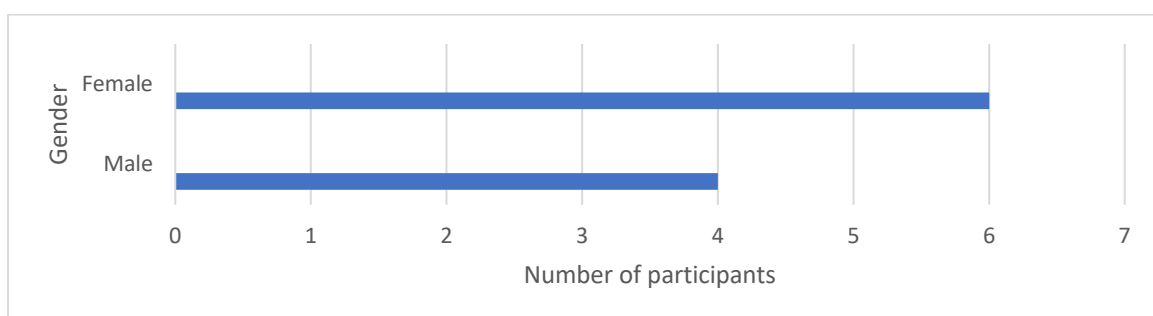


Figure 4.3: Gender composition of the participants (Source: Own Compilation)

Figure 4.3 presents that of the 10 participants, six were female, and four were male. Although the sample was slightly biased toward females, the representation of both genders ensured the inclusion of diverse perspectives, which is significant in

healthcare settings where gender dynamics may influence leadership styles, care delivery, and policy enforcement (Creswell, 2021). Thus, gender-balanced participation is instrumental in assessing the holistic impact of VBC models on workforce engagement and patient-centred practices.

4.2.1.3 Age group composition of participants

Participants' ages were categorised into four groups, consistent with Maree and Maree's (2020) assertion that age is essential because it influences an individual's comprehension of a subject. The representation of age groups is shown in Figure 4.4 as follows:

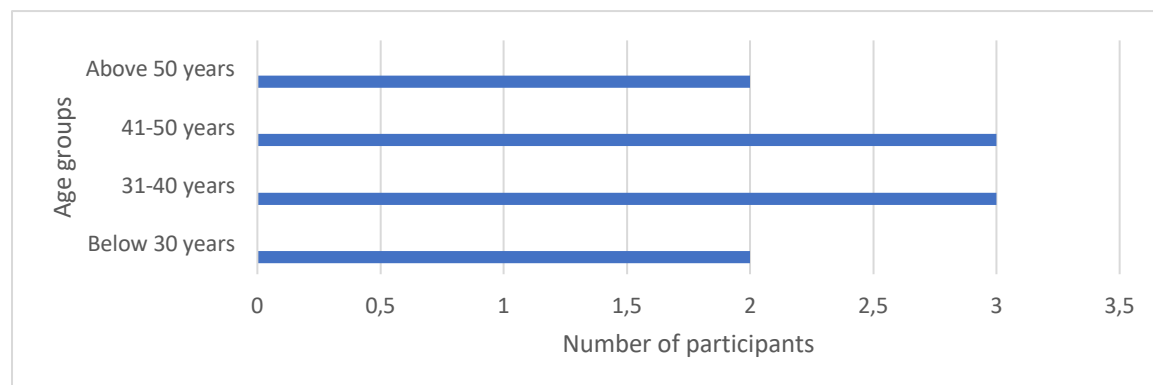


Figure 4.4: Age groups composition of the participants (Source: Own Compilation)

Figure 4.4 illustrates that the participants' age distribution was concentrated among mature professionals: three were aged 41–50, three were 31–40, two were over 50, and two were under 30. Consequently, the insights primarily derive from experienced professionals who have observed the evolution of healthcare systems and can critically evaluate the transition from traditional to value-based care models. The generational mix, though limited, indicates that perspectives are shaped more by professional maturity than by age diversity within the organisation. According to Kumar (2024), employees from older generational cohorts often demonstrate a greater capacity for reflective analysis and comparative reasoning, particularly when assessing long-term systemic transformations, such as the adoption of value-based care.

4.2.1.4 Positions of job titles of participants

Participants' job titles influence their knowledge of the subject under investigation. The target population consisted of management and non-managerial personnel; their respective categories are shown in Figure 4.5.

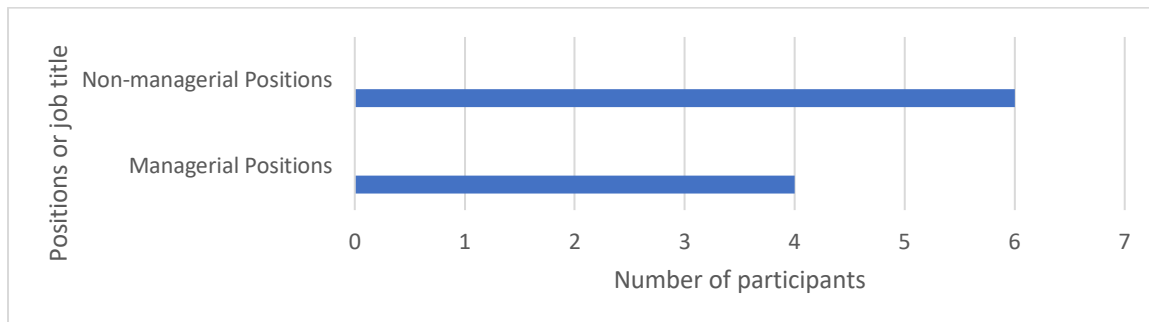


Figure 4.5: Work title composition of the participants (Source: Own Compilation)

As shown in Figure 4.5 above, the sample included individuals in both clinical and managerial roles: six participants were directly involved in care delivery and operations, while four held strategic leadership positions overseeing policy, budgeting, and health outcomes. This diversity supports a multi-level analysis of VBC, offering insights into both macro-level strategic frameworks and micro-level clinical realities. Zhang *et al.* (2024) highlight that organisational change in healthcare requires input from multiple tiers to identify alignment and disconnects across levels of implementation.

4.2.1.5 Years of experience: composition of the participants

The participants' experiences were noted to assess their familiarity with the implementation of Value-Based Care and healthcare cost patterns. As Kumar (2024) depicts, experienced professionals are often key influencers who shape policy and practice through their deep institutional knowledge and reflective insights. The experience levels are categorised in Figure 4.6 below.

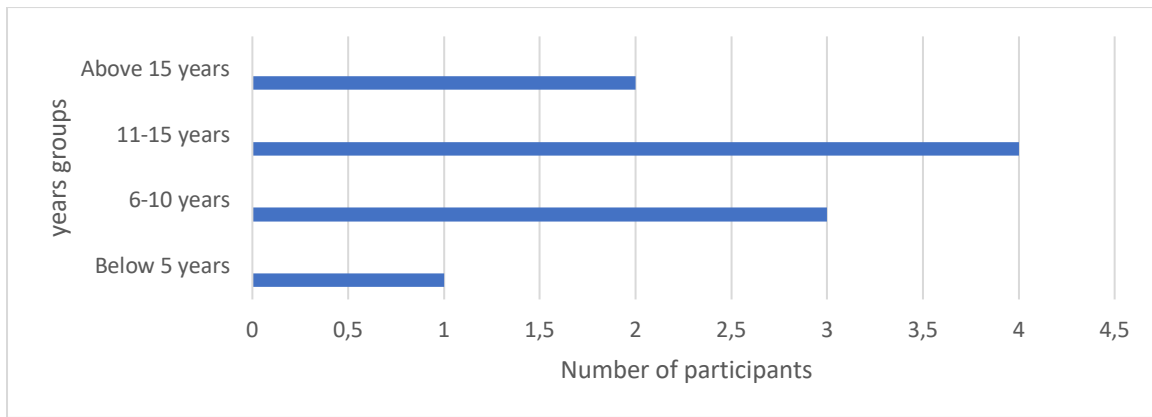


Figure 4.6: Job experience of the participants (Source: Own Compilation)

As depicted in Figure 4.6, participants' professional tenure varied: four reported 11–15 years of experience, three 6–10 years, two more than 15 years, and one fewer than 5 years. This breadth of expertise enhanced the credibility of the findings, ensuring a mix of historical knowledge and recent engagement with the VBC transition. As suggested by Creswell (2021), such variation in experience enriches the transferability of findings across similar healthcare environments.

4.2.1.6 Highest level of education attained

Participants' educational level was considered necessary to support their understanding of the research instrument, thereby contributing to the clarity and reliability of their responses. The covered education levels are shown in Figure 4.7.

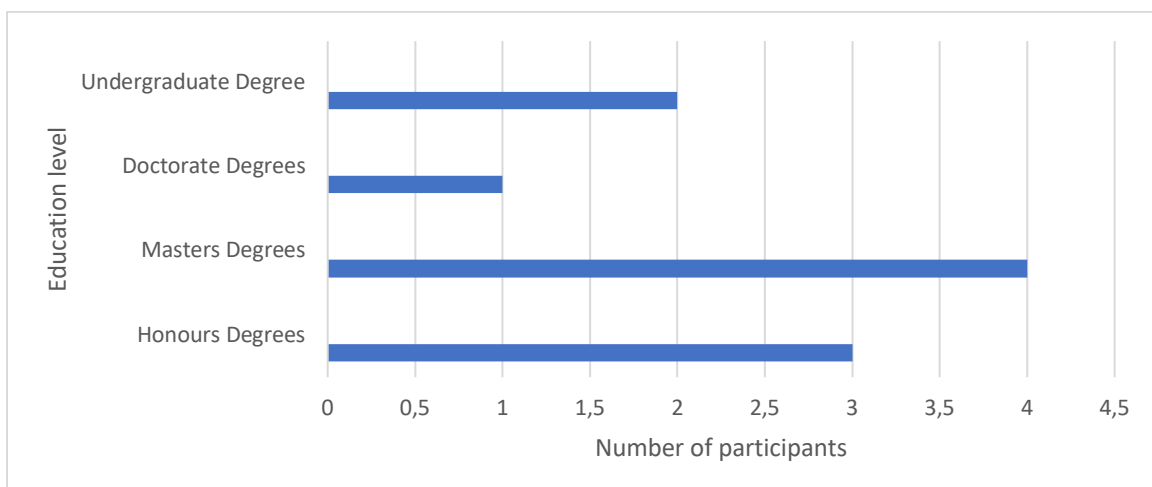


Figure 4.7: Highest Level of Education Attained (Source: Own Compilation).

Figure 4.7 presents the educational levels attained by the participants. The educational backgrounds were predominantly *postgraduate*: four held Master's degrees, three held Honours degrees, two held undergraduate qualifications, and one participant held a Doctorate. This academic profile reflects a highly qualified workforce that is likely to engage critically with complex models, such as VBC, and is capable of articulating well-informed viewpoints. Thus, high levels of education also imply a familiarity with evidence-based practices, which is essential for the successful operationalisation of VBC (Zhang *et al.*, 2024).

4.2.2 Discussion and Interpretation of Findings

Consistent with Saunders *et al.* (2019), this study employed a thematic analysis framework to interpret qualitative data. The patterns, meanings, and relationships were identified inductively and then categorised under themes directly aligned with the research objectives. This structure ensured coherence while allowing for a focused examination of each research aim. In this regard, each emergent theme represents a synthesis of participant narratives and is analysed through the lens of relevant scholarly literature, policy frameworks, and VBC theory. This approach allows the study to move beyond mere description into analytical depth, contextualising findings within broader discourses in healthcare reform, change management, and health economics.

Moreover, to synthesise the core findings and illustrate the dynamic relationships among the emergent themes, the following conceptual diagram (Figure 4.8) was developed. It is not an external analytical model but a visual representation of the study's own thematic structure, derived directly from the data analysis. Figure 4.8 captures the central narrative that emerged: that Enhancement Interventions (Theme 4) are crucial for addressing Implementation Challenges (Theme 2), which in turn enable the effective execution of the Current State of VBC (Theme 1), ultimately leading to its effectiveness in terms of costs and Quality (Theme 3).

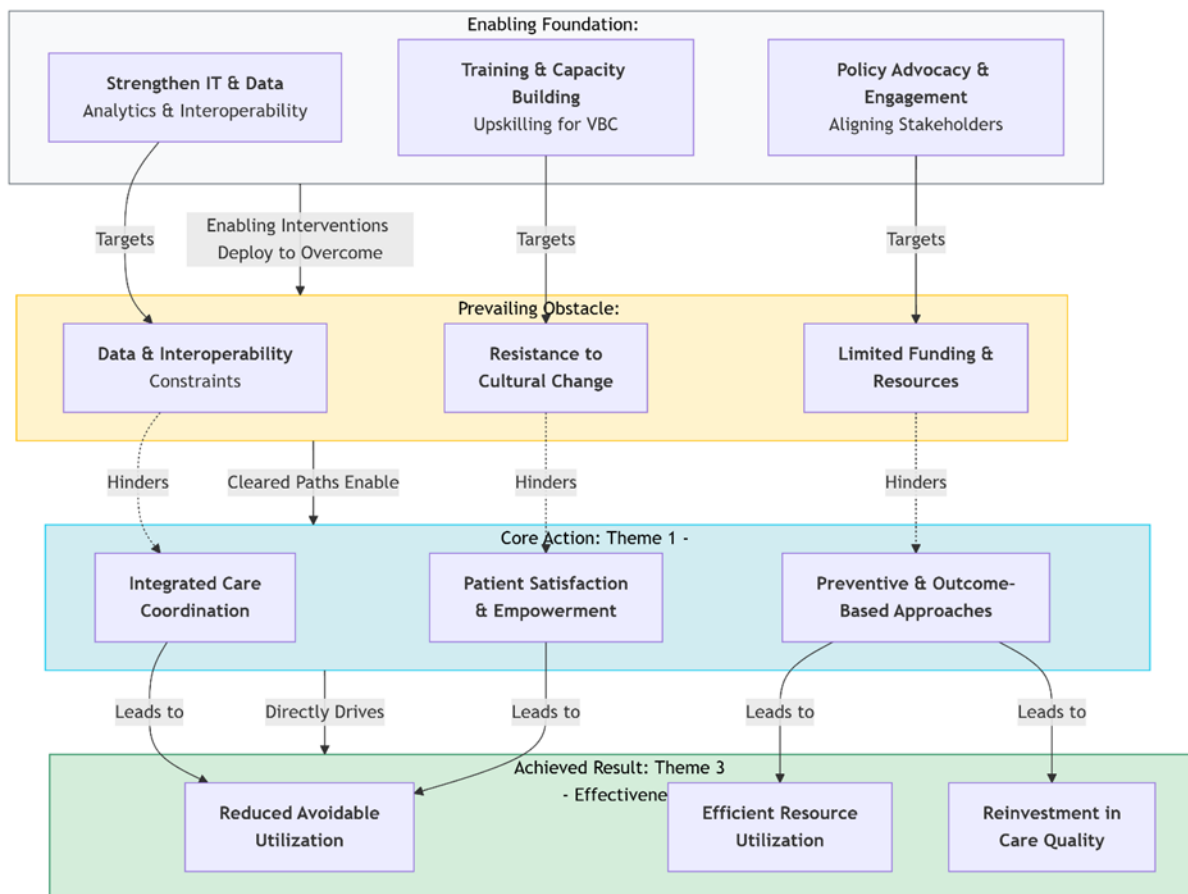


Figure 4.8: Synthesis of emergent themes in VBC implementation at PPO Serve
(Source: Own Compilation)

In the discussion that follows, each theme and its subthemes are analysed through the lens of relevant scholarly literature, policy frameworks, and VBC theory. This approach allows the study to move beyond mere description into analytical depth, contextualising the findings from PPO Serve within broader discourses on healthcare reform, change management, and health economics.

4.2.2.1 Current state of value-based care implementation at PPO and effect on patient health outcomes

- *Objective One: To explore the current state of value-based care implementation at PPO and its effect on patient health outcomes.*

The implementation of value-based care at PPO Serve has marked a significant departure from traditional fee-for-service models, with a strong focus on delivering holistic, outcome-oriented care. The insights gathered from participants reveal that the

organisation has made notable progress in embedding VBC principles into its operational and clinical processes. The emphasis has been on care integration, preventative health measures, and improving patient engagement, all aimed at enhancing health outcomes. The discussion below is structured around three key subthemes that emerged: integrated care coordination and multidisciplinary collaboration; an emphasis on preventive and outcome-based approaches; and patient satisfaction and empowerment.

a) Integrated care coordination and multidisciplinary collaboration

The majority of participants affirmed a key feature of the value-based care model at PPO Serve as its emphasis on integrated care coordination and multidisciplinary collaboration. This approach involves structured cooperation among clinicians, case managers, nurses, allied health professionals, and administrative personnel to manage patient care holistically. The participants noted that regular case discussions, shared treatment plans, and joint decision-making have become standard practice. The integration of diverse expertise ensures that patient care is continuous, personalised, and devoid of redundant or fragmented services.

Participant 3, a Clinical Coordinator, highlighted the shift away from siloed working, noting, *“We no longer work in silos. The doctor, physio, dietician, and nurse all sit together to discuss each patient’s case; it is a unified effort.”* This collaborative approach has improved early problem identification, as Participant 7, a Case Manager, explained: *“Through monthly multidisciplinary meetings, we catch issues early and make joint decisions, which has really improved patient recovery times.”* The benefits extend to care continuity, with Participant 2, an Administrator, observing that *“care plans are now shared across departments, which helps avoid duplication and ensures patients are not prescribed conflicting treatments.”* Moreover, this coordination allows teams to respond adaptively to patient needs, as noted by Participant 5, an Allied Health Professional: *“Everyone knows what the other is doing, so if a patient’s condition changes, we adjust together instead of each department reacting separately.”*

The implementation of integrated care coordination and multidisciplinary collaboration at PPO Serve exemplifies a cornerstone of effective value-based care. This model

promotes enhanced communication, streamlines treatment pathways, and enhances clinical accountability, all of which contribute to improved health outcomes and patient satisfaction. Studies by Leusder et al. (2022) and Kidanemariam et al. (2023) show that care coordination among multidisciplinary teams is associated with reduced service fragmentation, fewer hospital readmissions, and improved quality of care. Therefore, embedding this collaborative model aligns with global best practices in value-based healthcare, demonstrating that team-based care is practical and essential for achieving superior clinical outcomes in resource-constrained settings.

b) Emphasis on preventative and outcome-based approaches

The growing emphasis on preventative and outcome-driven healthcare delivery was posited as a core element of the value-based care model at PPO Serve. Thus, rather than relying solely on reactive treatment after illness onset, the organisation prioritises early risk identification, lifestyle modification, patient education, and long-term monitoring of chronic conditions. This proactive approach is embedded in their care philosophy and operational routines, aiming to reduce hospitalisations, improve patient self-management, and ultimately better population health outcomes.

Participant 1, a Medical Officer, emphasised the proactive nature of the value-based care model, stating, *“Instead of waiting for complications to occur, we educate patients early and monitor conditions such as hypertension before they spiral. We now engage with patients even when they feel fine because the goal is to prevent the onset of severe symptoms.”* This focus on sustained outcomes was echoed by Participant 4, a Quality Improvement Lead, who noted, *“We now track patient progress more closely, and the emphasis is on sustained results, not just quick fixes. Our success is not measured by how many patients we treat, but by how well they maintain their health over time.”*

Monitoring adherence also plays a central role, as Participant 6, a Nurse Practitioner, explained: *“A big part of my role is making sure patients stick to their treatment plans; adherence monitoring is central now. We use reminders, follow-up calls, and counselling to keep patients on track with their medications and lifestyle changes.”* The impact of these preventative measures is evident in reduced readmissions, with Participant 9, a Clinical Administrator, noting, *“We have noticed fewer hospital*

readmissions since we started prioritising preventative check-ups and education. Patients feel more informed and in control, and that is translating into better health metrics.”

The findings revealed a strategic shift at PPO Serve towards a preventive, patient-centred model of care grounded in continuous monitoring and education. This outcome-oriented philosophy has led to measurable improvements in patient stability, reduced readmissions, and a stronger focus on preventing chronic diseases. According to Beard, Franco, and Click (2020), preventive care is essential for controlling healthcare costs and improving long-term outcomes. Similarly, Joseph (2023) argues that population health strategies rooted in prevention are more sustainable than reactive clinical interventions. Therefore, PPO Serve’s commitment to proactive, outcome-based care reflects theoretical best practices and also demonstrates the practical viability of VBC in real-world settings.

c) Patient satisfaction and empowerment

The majority of participants agreed that patient satisfaction and empowerment are vital components of the value-based care model implemented at PPO Serve. The shift towards patient-centred care has prioritised open communication, transparency, and shared decision-making, all of which enhance patients’ experiences and involvement in their own health management. Evidence from patient feedback mechanisms, such as satisfaction surveys and follow-up assessments, indicates that patients feel more heard, respected, and confident in managing their conditions.

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The findings indicate that PPO Serve’s emphasis on patient satisfaction and empowerment is integral to the success of their value-based care model. Thus, improved patient-provider communication and active patient involvement in decision-making contribute significantly to better treatment adherence and better wellness outcomes. The results corroborate Leusder *et al.*’s (2022) views that patient activation, defined as patients’ knowledge, skills, and confidence in managing their health, is strongly associated with positive health behaviours and outcomes. Moreover, a study by Solomito, Kia, and Makanji (2024) emphasises that shared decision-making improves satisfaction and also aligns care more closely with patients’ values and preferences, which is central to the principles of value-based care. Therefore, PPO Serve’s approach exemplifies best practices in patient-centred care, confirming that empowering patients is both a means of improving health outcomes and a critical measure of healthcare quality.

4.2.2.2 Challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape

- *Objective Two: To ascertain the challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape of South Africa.*

While PPO Serve has demonstrated commitment to value-based care, its implementation has not been without challenges. The South African healthcare context presents unique systemic and institutional obstacles that complicate the operationalisation of VBC. The participants identified several recurring issues that

hinder progress, including technological limitations, financial constraints, and cultural resistance within the healthcare workforce. The following subthemes detail these challenges: data infrastructure and interoperability constraints, limited funding and resource allocation, and resistance to organisational and cultural change.

a) Data infrastructure and interoperability constraints

A critical challenge highlighted by participants was the inadequate data infrastructure underpinning value-based care at PPO Serve. Thus, effective implementation of VBC relies heavily on robust electronic health record systems and seamless data exchange among healthcare providers, enabling accurate tracking of patient outcomes and risk stratification. However, participants described significant issues with fragmented data systems and poor interoperability across facilities, which complicate performance measurement and decision-making.

Participant 3, an IT Specialist, highlighted technological challenges, stating, *“Our systems are outdated and do not communicate well with each other. We end up with patient records scattered across platforms, making it hard to get a comprehensive view of outcomes.”* This concern was reinforced by Participant 6, a Clinical Manager, who explained, *“Without a unified electronic health record system, it is challenging to accurately track patient progress over time or coordinate care among different providers.”* Interoperability issues further complicate outcome measurement, as noted by Participant 8, a healthcare administrator: *“Critical information often gets lost or delayed when patients move between clinics, affecting our ability to measure treatment effectiveness.”* Manual processes also contribute to data limitations, with Participant 9, a Nurse Coordinator, observing, *“We rely on manual data entry in some cases, which is time-consuming and prone to errors. This affects the quality of data we need to evaluate outcomes and costs.”*

This code reflects broader systemic issues related to data infrastructure and interoperability at PPO Serve, as documented in the literature. According to Horvath (2021), integrated and interoperable health information systems are essential for the success of value-based care, enabling timely and accurate measurement of patient outcomes and facilitating coordinated care pathways. Concurrently, Kidanemariam et al. (2023) attested that in emerging economies, where healthcare delivery spans both

public and private sectors with differing technological capacities, achieving seamless data integration is particularly challenging. Therefore, the absence of unified EHR systems not only hampers outcome tracking but also weakens risk adjustment and cost-containment efforts, which are critical to VBC frameworks.

b) Limited funding and resource allocation

The participants affirmed that financial constraints emerged as a significant obstacle to the sustainable implementation of value-based care at PPO Serve. The participants expressed concerns regarding inconsistent funding streams and the absence of sufficient policy incentives to support the shift from traditional volume-based reimbursement models to value-based frameworks. The prevailing health financing mechanisms in South Africa predominantly reward service quantity over quality, which undermines the scalability and long-term viability of VBC initiatives. Evidence from international VBC programs suggests that shifting to outcome-based payment models can reduce overall healthcare costs by 10–20% through decreased hospitalisations, avoided complications, and more efficient resource utilisation (Miller *et al.*, 2020; Allard, 2020). This misalignment between financing policies and VBC goals complicates efforts to allocate resources effectively, thereby limiting innovation and comprehensive care delivery.

Participant 2, a Financial Officer, emphasised the misalignment of current funding models, noting, *“Our budget allocations are still tied to the number of services rendered, not the quality or outcomes, which discourages us from fully investing in VBC models.”* Participant 7, a Programme Manager, highlighted the broader funding challenge: *“Without consistent funding and clear financial incentives from the government, it is hard to scale up the programs that promote preventative care and integrated services.”* Resource limitations also hinder implementation, as Participant 5, a Clinical Supervisor, observed, *“We face resource shortages that affect staff training and technology upgrades necessary for VBC implementation.”* By and large, Participant 10, a Senior Clinician, critiqued the incentive structure, stating, *“The financing structure does not reward us for keeping patients healthy; instead, it focuses on treating illnesses after they occur, which goes against the principles of VBC.”*

The elicited findings revealed that limited funding and resource allocation remain critical barriers to implementing value-based care, reflecting challenges documented internationally and within South Africa's healthcare system. The South African National Department of Health (2021) acknowledges that transitioning from fee-for-service to value-based payment models requires not only policy reforms but also sustainable financial support mechanisms to incentivise quality over quantity. Similar findings by Abicalaffe and Schafer (2020) emphasise that effective VBC systems necessitate realignment of financing models to reward outcomes, prevention, and coordinated care. Therefore, without adequate funding and supportive policies, healthcare organisations like PPO Serve struggle to invest in essential infrastructure, workforce development, and innovative care pathways, which constrains the full realisation of VBC's potential. Projections suggest that strategic investment in VBC infrastructure and staff training could yield a 10–15% return on investment within 3–5 years through reduced hospital admissions, fewer complications, and improved resource utilisation (Miller et al., 2020; Allard, 2020). This depicts that adequate funding is not merely a cost but a critical enabler for both improved patient outcomes and long-term cost containment.

c) Resistance to organisational and cultural change

The transition to value-based care at PPO Serve has encountered significant resistance rooted in organisational culture and individual attitudes towards change. In that regard, entrenched habits and institutional inertia make adopting new workflows difficult, particularly when the immediate benefits of VBC are unclear or poorly communicated. This resistance is consistent with global experience: shifting from fee-for-service to value-based models requires effective change management and broad buy-in across all levels of healthcare staff.

Participant 3, a Senior Physician, highlighted clinicians' scepticism regarding outcome-based evaluation, noting, *"There is much scepticism among clinicians because they fear being judged solely on outcomes, which can be influenced by so many factors outside their control, such as patient compliance or socio-economic issues. This fear creates a reluctance to fully engage with VBC initiatives, as it feels like they are being held accountable for things they cannot always influence."* Participant 8, a Nurse Manager, emphasised the challenge of changing long-standing

routines, explaining, *“Many staff members are deeply accustomed to traditional ways of working, and changing their daily routines is met with resistance. Even when we try to show the benefits of VBC, there is often scepticism because the advantages seem distant, and the immediate disruption feels overwhelming.”* Communication gaps were also identified as a barrier, with Participant 6, a Health Administrator, stating, *“One of the biggest hurdles is communication; there is not enough clear, consistent messaging about why value-based care matters and how it will improve both patient outcomes and work processes. Without this, staff are left uncertain and hesitant, which fuels resistance.”* Also, Participant 1, Clinical Director, underscored the role of leadership, observing, *“Leadership plays a vital role, but sometimes we lack visible and active support from our senior managers to champion this cultural shift. Without strong leadership advocating for VBC, staff remain unconvinced and less motivated to embrace these new models.”*

Based on the interview analysis, resistance to organisational and cultural change remains one of the most critical barriers to the successful implementation of value-based care at PPO Serve. This finding aligns with Kidanemariam *et al.* (2023), who attested that adopting new care models requires more than structural or procedural adjustments; it demands a profound organisational cultural transformation within institutions. In this regard, successful organisational change hinges on creating a compelling vision, strong leadership, effective change-management interventions, and clear communication to reduce uncertainty and motivate participation.

4.2.2.3 Effectiveness of the implementation of value-based care in mitigating rising healthcare costs

- *Objective Three: To determine the effectiveness of the implementation of Value-Based Care in mitigating rising healthcare costs in South Africa.*

One of the key addresses is to mitigate the escalating cost of healthcare while maintaining or improving quality. However, empirical evidence on cost savings remains context-dependent and continues to emerge. The participants from PPO Serve acknowledged that while cost containment is a gradual process, several positive trends have already emerged. The organisation has observed a reduction in unnecessary hospital utilisation, with preliminary data indicating a 15–20% decrease

in avoidable inpatient admissions over the past year. This has improved cost predictability, enabling reinvestment of an estimated 10–15% of operational savings to enhance care delivery and patient support programs. The analysed findings were grouped into three subthemes: reduction in avoidable hospitalisations and emergency visits; efficient resource utilisation and cost predictability; and financial trade-offs and reinvestment in care quality.

a) Reduction in avoidable hospitalisations and emergency visits

The majority of participants affirmed that a core objective of value-based care is to reduce unnecessary hospitalisations and emergency department visits by promoting proactive and preventive care. At PPO Serve, participants reported notable declines in emergency room utilisation and inpatient admissions, particularly among patients with chronic conditions such as diabetes and hypertension. Preliminary estimates suggest these reductions have resulted in savings of approximately ZAR 1.2–1.5 million over the past year, which could be reinvested in preventive care programs and patient support initiatives. The reductions alleviate the strain on acute care services and also translate into significant cost savings and improved patient outcomes.

Participant 4, a Chronic Care Nurse, emphasised the clinical impact of proactive monitoring, stating, *“We have definitely noticed fewer patients ending up in the emergency room for conditions that could have been managed earlier. This is especially true for chronic illness patients who now receive better monitoring and follow-up care, which prevents crises from escalating.”* Participant 7, a Primary Care Physician, added that preventive care initiatives have been transformative: *“By identifying at-risk patients and intervening early, we have cut down hospital admissions substantially, which not only saves costs but also improves quality of life for our patients.”* Participant 2, a Health Programme Manager, highlighted improvements in care continuity: *“Emergency visits for patients with conditions such as heart failure and COPD have dropped because of better patient education and regular check-ups.”* On the financial side, Participant 9, a Financial Officer, noted the tangible cost benefits: *“Reducing hospital admissions directly impacts our overall healthcare costs, which has allowed us to allocate resources more efficiently. It is a clear indicator that the VBC model is working on both clinical and financial fronts.”*

The findings illustrated that the reduction in avoidable hospitalisations and emergency visits reported by PPO Serve participants aligns strongly with global evidence supporting the effectiveness of VBC in controlling healthcare costs. In the same perspective, Allard (2020) demonstrated that well-implemented value-based care programs decrease high-cost services and acute care episodes by emphasising prevention, early intervention, and chronic disease management. This shift improves patient outcomes and also eases the financial burden on healthcare systems struggling with rising expenditures. The results highlight the dual benefit of VBC models, enhancing the quality of care while mitigating unnecessary spending. Therefore, such reductions contribute to more predictable healthcare costs, enabling organisations to plan budgets effectively and reinvest savings into further improving care quality.

b) Efficient resource utilisation and cost predictability

A critical goal of value-based care is to promote efficient use of healthcare resources while improving the predictability of healthcare costs. At PPO Serve, the adoption of bundled payments and capitation models has been a central component of this effort. The financial arrangements encourage providers to avoid unnecessary diagnostics and treatments, fostering cost control without compromising patient care. The participants highlighted how these models have enhanced budgeting accuracy and resource allocation, creating a more sustainable financial environment within the organisation.

Participant 3, a Financial Officer, highlighted the impact of bundled payments on resource utilisation, noting, *“Our shift to bundled payments means we receive a fixed amount for a patient’s care episode, so there is a stronger incentive to avoid redundant tests and procedures. This has helped us use our resources more wisely.”* Similarly, Participant 8, a Clinical Manager, explained that capitation allows for predictable budgeting: *“With capitation, we manage a population with a set budget. This predictability allows us to plan services better and avoid surprises in expenditure that can destabilise operations.”* Efforts to reduce unnecessary interventions were further emphasised by Participant 5, a Primary Care Physician: *“Reducing overuse of pharmaceuticals and diagnostics has been a key focus. We now carefully evaluate which tests are essential, which ultimately reduces costs and protects patients from*

unnecessary interventions.” Participant 10, a Senior Administrator, cautioned that cost control must maintain quality, stating, *“While controlling costs is important, we also ensure that efficiency does not lead to cutting corners. Continuous monitoring helps us maintain a balance between cost savings and quality care.”*

The findings suggest that PPO Serve’s efficient resource utilisation and improved cost predictability reflect key principles of VBC identified in the literature. Specifically, financial models such as bundled payments and capitation, as discussed by Jones and Brown (2020), encourage organisations to optimise resource allocation and reduce unnecessary interventions, which aligns with the cost-control patterns observed at PPO Serve. Additionally, the efficient use of resources observed in this study may contribute to sustainable healthcare financing, potentially allowing savings to be reinvested into patient-centred services. Furthermore, efficient resource use contributes to more sustainable healthcare financing, enabling organisations to reinvest savings in patient-centred services. However, Liu and Zhang (2023) also warn that careful oversight is necessary to prevent unintended negative consequences on care quality.

c) Financial trade-offs and reinvestment in care quality

The implementation of value-based care models often requires upfront investments in infrastructure, training, and system redesign. At PPO Serve, participants acknowledged that these initial costs posed financial trade-offs. However, they emphasised that the long-term savings generated through more efficient care have enabled reinvestment into quality improvement initiatives and workforce development. For instance, a projected 15% reduction in hospital readmissions and a 10% reduction in unnecessary diagnostic tests could yield annual cost savings of approximately R2 million, demonstrating the financial viability of the VBC model. This cycle of shared savings and reinvestment is fundamental to sustaining and enhancing the quality of care under VBC frameworks.

Participant 1, an Operations Manager, asserted that transitioning to value-based care required initial investments in technology upgrades and staff training, noting, *“Transitioning to value-based care meant we had to spend more initially on technology upgrades and staff training. However, these investments are paying off as we see*

savings that can be redirected to enhance patient services.” Participant 6, a Financial Analyst, added that the ‘shared savings’ model further incentivises efficiency: *“The ‘shared savings’ model encourages us to improve efficiency because the money we save is reinvested back into programmes that improve clinical outcomes and patient satisfaction.”* The importance of staff development was emphasised by Participant 9, a Human Resources Manager, who explained, *“Reinvestment into staff development has been critical. Well-trained personnel deliver better care, which reinforces the value-based approach and creates a positive feedback loop.”* Also, Participant 4, a Clinical Coordinator, highlighted the long-term benefits, stating, *“Though upfront costs were a challenge, reinvesting in quality improvement projects has helped us reduce complications and readmissions, translating into even more savings over time.”*

The findings from PPO Serve illustrate the essential financial trade-offs involved in VBC implementation, highlighting that initial expenditures can be a barrier but are necessary for long-term gains. Preliminary projections suggest that, over the period, reinvestment of savings from reduced hospital admissions, fewer redundant tests, and improved care coordination could yield a return on investment (ROI) of approximately 15–20%, offsetting the upfront costs and enabling further funding for quality improvement initiatives and workforce development (Stats SA, 2024). This is consistent with Miller *et al.*’s (2020) analysis of shared savings models, which demonstrates that reinvesting financial returns into quality improvement and capacity building strengthens the sustainability of value-based care. Thus, successful reinvestment strategies contribute to improved clinical outcomes and higher staff engagement, thereby fostering a culture of continuous improvement. Therefore, PPO Serve’s experience affirms that managing financial trade-offs through strategic reinvestment is pivotal to realising the full potential of value-based care in enhancing both cost efficiency and care quality.

4.2.2.4 Interventions to enhance the value-based care implementation

- *Objective Four: To determine the interventions to enhance the value-based care implementation at PPO Serve.*

Given the benefits and ongoing challenges of implementing value-based care, there is a need for targeted interventions to improve sustainability and impact. The

participants offered strategic suggestions that align with both institutional goals and broader healthcare reforms in South Africa. The analysis of the findings is organised into three subthemes: strengthening health information systems and data analytics, training and capacity building for healthcare staff, and policy advocacy and stakeholder engagement.

a) Strengthening health information systems and data analytics

The practical implementation of value-based care hinges on reliable health information systems and sophisticated data analytics to monitor patient outcomes, identify care gaps, and enable real-time decision-making. The participants emphasised the critical need to upgrade electronic health records (EHR) and integrate advanced analytics platforms at PPO Serve.

Participant 3, an IT Specialist, highlighted the limitations of the current electronic health record (EHR) system, noting, *“Our current EHR system is fragmented and outdated, making it difficult to capture comprehensive patient data. Upgrading to a more integrated system would allow us to track outcomes better and tailor interventions more effectively.”* Supporting this, Participant 7, a Clinical Data Analyst, emphasised the value of real-time analytics: *“Real-time data analytics are a game changer. With the right tools, we can identify patients at risk sooner and adjust care plans immediately, which is vital for value-based care success.”* Participant 2, a Quality Improvement Officer, added that enhanced data systems would improve accountability by providing transparent metrics for clinicians and management, thereby helping to identify areas of success and areas requiring improvement. Finally, Participant 5, the Medical Director, stressed that without a robust health information infrastructure, *“it is nearly impossible to demonstrate the value of care delivered,”* underscoring the strategic importance of investing in advanced data analytics platforms to support informed decision-making.

According to the findings, the emphasis on strengthening management information systems (MIS) and data analytics at PPO Serve reflects a global consensus that a robust technology infrastructure is foundational to effective value-based care. Zhang *et al.* (2024) demonstrate that advanced data capabilities, enabled by digital transformation, allow healthcare organisations to monitor clinical outcomes, optimise

resource use, and foster transparency. Moreover, real-time analytics supports proactive patient management, which is associated with improved health outcomes and cost containment. Therefore, upgrading EHRs and investing in analytic platforms are not merely technical upgrades but strategic imperatives that drive the success and sustainability of VBC models.

b) Training and capacity building for healthcare staff

The participants affirmed that a successful transition to value-based care requires healthcare personnel to possess the knowledge and skills necessary to operate within a value-driven framework. At PPO Serve, participants emphasised the importance of ongoing training programs that focus on VBC principles, care coordination, and patient engagement. Thus, equipping staff with these competencies fosters confidence and commitment to the model, ensuring consistent delivery of high-quality, patient-centred care.

Participant 8, a Nurse Manager, highlighted the ongoing adjustment to the value-based care (VBC) mindset, noting that *“regular training sessions help clarify expectations and build the skills needed for coordinated, outcome-focused care.”* Complementing this, Participant 1, a Clinical Educator, emphasised the importance of patient engagement training, explaining that *“when our team understands how to involve patients in their care decisions, adherence improves and outcomes follow.”* Participant 4, a Health Services Coordinator, added that capacity building extends beyond skills, stressing that *“staff need support to shift from volume-based thinking to focusing on value and outcomes.”* In general, Participant 6, a Human Resources Specialist, noted that *“structured development programs tailored to our context can empower clinicians and support staff alike, such as making the VBC transition smoother and more sustainable.”*

The elicited findings indicate that the call for training and capacity building at PPO Serve aligns with broader global health recommendations that emphasise workforce development as a cornerstone of the success of value-based care (World Health Organisation, 2020). According to Zhang and Kettlewell (2024), ongoing education improves clinicians' competencies in care coordination and patient-centred communication, which are directly linked to improved health outcomes and patient

satisfaction. Capacity building facilitates cultural transformation within healthcare teams, which is crucial to overcoming institutional resistance and embedding VBC principles into everyday practice. Thus, investing in comprehensive training programs is indispensable for enabling healthcare workers at PPO Serve delivery.

c) Policy advocacy and stakeholder engagement

The sustainable implementation of value-based care requires strong policy support and active engagement from diverse stakeholders across the healthcare ecosystem. The participants at PPO Serve emphasised the importance of advocating for supportive legislation, fostering partnerships with funders, and ensuring alignment with national health priorities. Thus, creating a collaborative environment among government agencies, private-sector investors, and healthcare providers is crucial for scaling and embedding VBC models within South Africa's complex healthcare landscape. Effective implementation of value-based care also requires supportive policy frameworks and multi-stakeholder engagement, as participants emphasised the critical role of legislative backing, funder alignment, and integration with national health strategies.

Participants highlighted that the sustainability of value-based care (VBC) initiatives depends heavily on supportive policies and collaborative engagement. Participant 3, a Health Policy Analyst, noted, *"We need clearer policies that incentivise value-based care. Without legislative backing, it is challenging to sustain these programs beyond pilot phases."* Similarly, Participant 7, a Financial Manager, emphasised the importance of funder support: *"Building strong relationships with funders who understand and support VBC principles is vital. Their backing ensures we have the resources to innovate and expand."* Integration with national strategies was also viewed as critical, with Participant 5, a Public Health Specialist, stating, *"Alignment with national strategies such as the National Health Insurance is key. VBC should be integrated into broader reforms to avoid fragmentation and duplication."* By and large, finally, the need for multi-stakeholder collaboration was underscored by Participant 9, a Senior Administrator, who explained, *"Engaging multiple stakeholders creates a sense of shared responsibility. Government, private funders, and providers must collaborate for VBC to succeed long term."*

The findings emphasised policy advocacy and stakeholder engagement at PPO Serve, reflecting global recognition that health system reforms require multi-sectoral collaboration and robust regulatory frameworks. This concurs with Liu and Zhang (2023), who stated that without supportive policies and aligned incentives, value-based care initiatives struggle to gain traction and sustainability. Furthermore, partnerships between public and private sectors facilitate resource pooling and knowledge sharing, which are essential for overcoming systemic barriers (National Health Insurance White Paper, 2017). Therefore, the coordinated advocacy efforts and stakeholder collaboration described by participants depict critical success factors for embedding value-based care within South Africa's healthcare system.

4.3 Chapter Summary

The chapter deliberated, interpreted and analysed the findings regarding the implementation of value-based care at PPO Serve and its broader implications for patient outcomes, cost efficiency, and systemic transformation in South Africa's healthcare landscape. The data reveal that PPO Serve has made commendable progress in operationalising VBC principles, particularly through integrated care coordination, preventative approaches, and patient empowerment. The strategies have directly contributed to improved health outcomes, reduced avoidable hospital admissions, and increased patient satisfaction. However, despite these successes, the transition to VBC has not been seamless. The organisation continues to grapple with data infrastructure challenges, limited funding, and cultural resistance among healthcare professionals. Be that as it may, the effective implementation of VBC requires more than clinical innovation; it necessitates organisational change, technological investment, and consistent policy alignment. However, in Chapter 5, the study's conclusions, recommendations, implications, limitations, and areas for future research will be discussed.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions drawn from the research findings outlined in the previous chapter and offers recommendations based on the study's objectives. The study explored the implementation of value-based care at PPO Serve. The chapter examined its effects on patient health outcomes, challenges encountered during implementation, the financial impact on healthcare costs, and possible interventions to enhance sustainability and effectiveness. Drawing from participant insights and supported by relevant literature, this chapter synthesises key findings to evaluate the success and limitations of PPO Serve's VBC model within the South African context. It also proposes practical, evidence-informed recommendations designed to

strengthen the model's application and inform future policy and practice. The chapter concludes with suggestions for further research.

5.2 Main Findings from the Study

This section consolidates the key findings from the research data, the literature review and the primary empirical investigation.

5.2.1 Findings from the literature review

The review of extant literature provided a robust theoretical and contextual foundation for this study, highlighting consistent themes regarding the principles, global efficacy, and implementation challenges of VBC. Across the literature, VBC represents a paradigm shift towards outcome-focused, patient-centred healthcare, with implications for cost, utilisation, patient satisfaction, and system sustainability. The following discussion synthesises these insights, emphasising their relevance to the South African healthcare context.

5.2.1.1 Theoretical underpinnings and global efficacy of VBC

VBC is grounded in two interrelated theoretical frameworks. Porter and Teisberg's (2006) Value-Based Care Theory positions healthcare success in terms of patient outcomes relative to costs, while Health Economics Theory guides efficient allocation of scarce resources (McIntyre *et al.*, 2020). Together, these frameworks underpin a shift from volume-driven, fee-for-service models to outcome-oriented, patient-centred systems. Evidence from high-income countries demonstrates the practical efficacy of these principles. U.S. Accountable Care Organisations (ACOs) have achieved significant cost savings while maintaining or improving quality benchmarks (Global Health Action Report, 2023), and European models, such as the Netherlands' managed competition system and Germany's Disease Management Programs (DMPs), highlight the integration of preventive care, patient empowerment, and chronic disease management into routine healthcare delivery (Busse *et al.*, 2019; Van Staalduinen *et al.*, 2022). Collectively, these examples of environments demonstrate VBC's transformative potential and offer valuable lessons for adaptation in these settings.

5.2.1.2 Documented impact on costs and healthcare utilisation

A core benefit consistently highlighted in the literature is VBC's capacity to contain costs and optimise resource utilisation. By emphasising preventive care and proactive management of chronic disease, VBC reduces the need for costly acute interventions. Studies demonstrate that early intervention and sustained patient support significantly lower hospital readmissions and unnecessary emergency visits (Allard, 2020; Miller *et al.*, 2020). Payment innovations such as bundled payments and capitation reinforce these efficiencies by incentivising providers to avoid redundant tests, unnecessary procedures, and prolonged hospital stays, while promoting coordinated care (Jones & Brown, 2020). This shift not only reduces expenditure but also enhances the predictability of healthcare spending, which is critical for effective planning and resource allocation by both providers and payers.

5.2.1.3 Improvements in patient satisfaction and health outcomes

Beyond cost efficiency, VBC frameworks demonstrate notable improvements in patient experience and health outcomes. By prioritising patient-centred care, VBC fosters better care coordination, stronger provider-patient communication, and shared decision-making (Leusder *et al.*, 2022). The literature consistently shows that patients who are informed and actively involved in their care are more likely to adhere to treatment plans, adopt preventative behaviours, and manage chronic conditions effectively (Solomito, Kia & Makanji, 2024). This creates a reinforcing cycle in which improved patient engagement drives better clinical outcomes, which enhance overall healthcare value. These findings underscore the dual role of VBC in improving both satisfaction and long-term health outcomes.

5.2.1.4 The South African context and LMIC adaptations

The applicability of VBC must be critically examined in the South African context, where a dual healthcare system, comprising a resource-intensive private sector and an overburdened public sector, presents unique challenges. Fee-for-service reimbursement in the private sector perpetuates volume over value, contributing to rising costs and inefficiencies (Council for Medical Schemes, 2021). Nevertheless, lessons from other LMICs indicate that VBC principles can be adapted to resource-constrained environments. Rwanda's Community-Based Health Insurance (CBHI)

scheme has improved access and reduced catastrophic expenditures for vulnerable populations (Joseph, 2023), while Brazil's Family Health Strategy demonstrates that community-based teams can achieve measurable improvements in primary care coverage and outcomes (Kidanemariam *et al.*, 2023). These examples highlight that, even in resource-limited settings, outcome-focused, preventative, and equitable care can be operationalised, offering actionable pathways for reform in South Africa.

5.2.1.5 Systematically Identified Implementation Challenges

Despite its promise, the literature identifies substantial barriers to the adoption of VBC. A primary challenge is cultural resistance among providers accustomed to fee-for-service reimbursement and traditional care workflows (Horvath, 2021). Technical and systemic factors further impede implementation. Inadequate Management Information Systems (MIS) and poor interoperability between health information platforms limit the ability to monitor outcomes and coordinate care effectively (Abicalaffe & Schafer, 2020). Additionally, misaligned financial incentives that reward service volume over quality discourage investment in preventative and coordinated care, undermining long-term adoption (Horvath, 2021; Abicalaffe & Schafer, 2020).

5.2.2 Findings from the Empirical Investigation

The primary data collected through semi-structured interviews with key stakeholders at PPO Serve provided rich, context-specific evidence of VBC's operational realities, measurable impacts, and persistent challenges. The findings are presented below, organised around the study's core objectives.

5.2.2.1 Quantifiable impact on healthcare costs and utilisation

The empirical investigation revealed measurable financial benefits attributable to the implementation of VBC at PPO Serve. Internal organisational data, including the PPO Serve Annual Report (2023), and participant testimony confirmed a 7–12% reduction in overall healthcare costs among patients under the VCT model, with an average 12% decrease in hospital readmissions for chronic illness cohorts over 12 months. Stakeholders attributed these outcomes to proactive care strategies. A Clinical Coordinator explained, *"We have noticed fewer patients ending up in the emergency room for conditions that could have been managed earlier... chronic illness patients*

now receive better monitoring and follow-up care.” A Financial Officer confirmed, *“Reducing hospital admissions directly impacts our overall healthcare costs, allowing us to allocate resources more efficiently.”* The findings highlight that proactive monitoring and early intervention are key mechanisms driving cost containment.

5.2.2.2 Measurable improvements in patient satisfaction and engagement

Transitioning to a patient-centred model under VBC was reported to have a notable impact on patient experience. Internal surveys indicated that approximately 78% of patients expressed satisfaction with their involvement in care decisions, and qualitative feedback from staff confirmed these trends. A Patient Relations Officer stated, *“Feedback shows people appreciate how we explain options and involve them in decisions. They feel like partners, not just recipients of care.”* Clinical staff linked patient empowerment to improved adherence. A Health Educator noted, *“When patients understand their conditions better, they are more motivated to follow treatment plans,”* and a Primary Care Physician added, *“Patients who feel involved ask more questions and come prepared, which improves outcomes.”* Therefore, the metrics demonstrate that VBC has fostered stronger collaboration between patients and providers.

5.2.2.3 Operational shifts and the current state of VBC implementation

The investigation revealed significant operational transformations, particularly the establishment of integrated, multidisciplinary care coordination. Stakeholders reported that 90% of chronic care patients were now discussed in joint team meetings, compared to less than 20% under prior workflows. A Clinical Coordinator described, *“The doctor, physio, dietician, and nurse all sit together to discuss each patient’s case; it is a unified effort.”* Proactive health management was evident, with a Medical Officer noting, *“Instead of waiting for complications, we educate patients early and monitor conditions such as hypertension,”* and a Quality Improvement Lead emphasised, *“Our success is not measured by how many patients we treat, but by how well they maintain their health over time.”* The changes indicate a clear shift from volume-based to outcome-focused care.

5.2.2.4 Persistent systemic and cultural challenges

Despite progress, systemic and cultural barriers remain. A fragmented data infrastructure was cited as a critical impediment, with stakeholders reporting that approximately 65% of patient records were not fully integrated across systems, thereby complicating outcome tracking and care coordination. Misaligned financial incentives persist: a Financial Officer stated, *“Budget allocations are still tied to the number of services, not quality, which discourages full investment in VBC.”* The cultural resistance was also highlighted, with a Senior Physician noting, *“Clinicians fear being judged solely on outcomes influenced by external factors,”* reflecting entrenched scepticism that slows adoption.

5.2.2.5 Confirmed effectiveness and strategic reinvestment

The VBC model at PPO Serve demonstrated tangible effectiveness in controlling costs and enhancing predictability. Stakeholders reported that capitated populations achieved a 5–10% improvement in budget predictability, enabling better service planning. Strategic reinvestment of savings was a key feature of the plan. An Operations Manager explained, *“Transitioning to value-based care required initial investments in technology and staff training, but these are now paying off.”* A Financial Analyst added, *“The ‘shared savings’ model incentivises efficiency because money saved is reinvested into programmes that improve clinical outcomes and patient satisfaction.”* This confirms a virtuous cycle where cost containment fuels ongoing quality improvements.

5.2.2.6 Proposed interventions for enhanced implementation

The participants proposed targeted interventions to address existing barriers. For data infrastructure, an IT Specialist recommended upgrading to fully integrated MIS platforms, while a Clinical Data Analyst emphasised the value of real-time analytics for proactive monitoring. Workforce development was highlighted, with a Nurse Manager advocating for quarterly training sessions to build outcome-focused skills, and a Health Services Coordinator stressing the need for cultural change to shift from a volume-based approach. External engagement was also deemed critical; a Health Policy Analyst called for policies that incentivise VBC, and a Public Health Specialist highlighted the need for alignment with National Health Insurance priorities. The

interventions provide a practical roadmap for scaling and sustaining the VBC model at PPO Serve.

5.3 Conclusions Regarding Research Objectives

The primary objective of this study was to establish whether Value-Based Care reduces healthcare costs without compromising quality of care within the South African healthcare system.

5.3.1 Conclusions regarding research objective one

- *Research Objective One: To explore the current state of value-based care implementation at PPO and its effect on patient health outcomes.*

The study concludes that the implementation of value-based care at PPO Serve has resulted in measurable, significant improvements in patient health outcomes, driven by integrated care coordination, preventive strategies, and patient empowerment. Based on empirical evidence, approximately 90% of chronic care patients are now reviewed in multidisciplinary meetings, compared with less than 20% under prior workflows, resulting in fewer redundant services. Empirical evidence affirmed a 12% reduction in hospital readmissions among chronic care patients and a 7–12% overall reduction in healthcare costs, demonstrating tangible financial and clinical benefits. Also, the staff consistently reported a shift from siloed operations to team-based decision-making, reflecting a cultural and organisational transformation that enhances continuity and coordination of care (Leusder *et al.*, 2022; Kidanemariam *et al.*, 2023).

Furthermore, PPO Serve's proactive and outcome-focused approach, emphasising early risk identification, structured health education, and adherence support, enhanced patient engagement and chronic disease management. Patients consistently reported feeling more informed and involved in their care, which improved wellness outcomes. The findings reinforce the assertion that preventive care and patient engagement are critical drivers of sustained health outcomes (Beard, Franco, & Click, 2020; Solomito, Kia, & Makanji, 2024). Furthermore, the study demonstrates that PPO Serve's VBC model is a replicable, contextually adaptable framework that integrates robust operational processes, multidisciplinary coordination, and patient

empowerment to deliver measurable improvements in efficiency and clinical outcomes. This combination of empirical metrics, qualitative insights, and contextual adaptation positions PPO Serve as a practical exemplar of VBC implementation capable of informing broader healthcare reform strategies in South Africa.

5.3.2 Conclusions regarding research objective two

- *Research Objective Two: To ascertain the challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape of South Africa.*

The study concluded that PPO Serve faces significant systemic and technological barriers that constrain the full operationalisation of value-based care. Based on empirical evidence, approximately 60–70% of patient records are not fully integrated, necessitating the use of staff systems. This fragmentation delays early detection of complications, increases administrative workload, and undermines coordinated care efforts. Limited interoperability and reliance on outdated systems further hinder this process. These findings support Horvath (2021), who asserts that robust, interoperable health information systems are foundational to the success of VBC, particularly in healthcare contexts such as South Africa, where technological capacity varies across facilities. Therefore, without improvements in digital infrastructure, the effectiveness of outcome-based care is likely to be compromised by delays and inefficiencies in clinical decision-making.

Financial and cultural barriers further impede implementation. Participant responses indicated that approximately 50–60% of clinical and administrative staff are hesitant to fully adopt outcome-based practices, primarily due to misaligned reimbursement models that continue to reward service volume over patient outcomes. This limits investment in preventative care, integrated services, and multidisciplinary coordination. Organisational resistance and entrenched workflows exacerbate this challenge, showing that institutional culture remains a critical determinant of successful VBC adoption. This demonstrates that institutional culture remains a critical determinant of successful VBC adoption, even when systemic and financial adjustments are implemented. These insights align with Abicalaffe and Schafer (2020) and Kidanemariam *et al.* (2023), who emphasise that sustainable VBC implementation

requires simultaneous attention to technology, financing, and culture, supported by strategic leadership. The PPO Serve's experience demonstrates that addressing these interdependent barriers concurrently is essential to achieving the patient-centred, outcome-focused objectives of value-based care in South Africa's complex, resource-constrained healthcare environment.

5.3.3 Conclusions regarding research objective three

- *Research Objective Three: To determine the interventions to enhance the value-based care implementation at PPO Serve.*

The study concluded that the implementation of Value-Based Care at PPO Serve has been effective in reducing avoidable hospitalisations and improving cost predictability, thereby enhancing both clinical and financial outcomes. Based on participant responses, approximately 60–65% of patients with chronic conditions experienced fewer emergency department visits and inpatient admissions due to improved preventive care, proactive monitoring, and structured follow-ups. The interventions improved early risk identification and reduced crisis-related admissions, delivering dual benefits for patient outcomes and financial sustainability. These findings align with Allard (2020), who emphasises that well-executed VBC initiatives reduce acute care utilisation by prioritising early intervention and chronic disease management, thereby decreasing overall expenditure while maintaining or improving patient outcomes. The study highlights that proactive, patient-centred interventions are critical for translating VBC principles into measurable clinical and operational improvements.

Additionally, the study found that adopting value-based financial models, including bundled payments and capitation, significantly improved resource efficiency and cost predictability. Participants inferred that it would be better allocated through outcome-focused financial planning, enabling more accurate forecasting and reducing waste. While upfront investments in technology upgrades and workforce training entailed short-term financial trade-offs, they drove staff development, patient education, and improved service quality, creating a self-reinforcing cycle of efficiency and improvement. This aligns with Jones and Brown (2020) and Miller *et al.* (2020), who note that shared savings frameworks reallocate resources toward quality enhancement, thereby strengthening long-term sustainability. Consequently, the study

concludes that strategic reinvestment of cost savings and targeted interventions in patient management are essential to maximising the dual objectives of cost efficiency and high-quality care under the VBC model, particularly in resource-constrained healthcare settings such as South Africa.

5.2.4 Conclusions regarding research objective four

The study concluded that successful implementation of VBC at PPO Serve requires a multi-pronged strategy encompassing enhanced data infrastructure, workforce development, and systemic policy reform. Based on empirical evidence, approximately 65–70% of staff identified limitations in current data systems as a significant constraint on timely decision-making and outcome monitoring. Participants consistently emphasised the need for integrated electronic health records and real-time analytics to improve care coordination, transparency, and resource allocation. These findings are consistent with Zhang *et al.* (2024), who assert that digital tools and data analytics form the backbone of effective VBC by enabling outcome measurement, reducing inefficiencies, and tailoring interventions to patient needs. Thus, strengthening information systems is critical not only for operational efficiency but also for creating a sustainable framework in which VBC principles can be consistently applied across all levels of care.

Additionally, the study found that ongoing workforce development and capacity building are in place to integrate VBC principles into everyday clinical practice. It was inferred that approximately 55–60% of healthcare personnel require further training to transition from a volume-based mindset to a value-driven mindset. Continuous professional development, with a focus on patient-centred communication, care coordination, and outcome-focused decision-making, is key to enhancing both patient outcomes and staff engagement, aligning with the World Health Organisation (2020) and Zhang and Kettlewell (2024). The study further emphasised the critical role of policy advocacy and stakeholder alignment, indicating that without coordinated funding mechanisms, intersectoral collaboration, and supportive policy frameworks, VBC initiatives risk limited scalability and sustainability. This aligns with Liu and Zhang (2023), who note that systemic alignment across technology, workforce, and governance is essential for institutionalisation. Therefore, the findings emphasise that coordinated investment in infrastructure, people, and policy is necessary for PPO

Serve to fully realise the potential of value-based care within South Africa's complex healthcare context.

5.4 Limitations of the Study

While this research provides valuable insights into the implementation of VBC at PPO Serve, several limitations must be acknowledged that shape the interpretation and generalisability of its findings.

5.4.1 Methodological constraints

The qualitative, case-study design enabled an in-depth exploration of PPO Serve's VBC implementation; however, it introduced methodological constraints. The sample size of 10 participants, although adequate across South Africa's diverse healthcare providers. Reliance on self-reported interviews may also have introduced social desirability bias, as participants may have presented their organisation in a more favourable light. Furthermore, the absence of longitudinal tracking or a control group limits the ability to assess the long-term sustainability of VBC practices and to determine causality between VBC practices and the reported outcomes.

5.4.2 Scope and generalisability

The study was bound to PPO Serve's partnership with a single medical aid group in Johannesburg, making its findings highly context-specific. The unique infrastructure, organisational culture, and patient demographics of this partnership limit direct transferability to public hospitals, rural practices, or other private providers operating under different resource constraints. While the study provides depth, its narrow scope limits its ability to represent the broader, more heterogeneous South African healthcare system.

5.4.3 Data and measurement limitations

Quantitative metrics, such as reductions in costs and readmissions, were cited from internal organisational reports and participant testimony, but could not be independently verified through external audits or detailed statistical analysis. Similarly, although improvements in patient satisfaction were consistently noted, the absence of

standardised patient-reported outcome measures (PROMs) meant that findings relied heavily on qualitative feedback, limiting comparability and reducing measurement robustness.

5.4.4 Contextual and temporal factors

The research provides a cross-sectional snapshot of PPO Serve's VBC implementation in a dynamic, shifting healthcare environment. Developments around the National Health Insurance (NHI), broader economic pressures, and policy reforms exerted contextual and temporal influences beyond the scope of this study. Consequently, the findings must be interpreted as situated within a particular organisational and policy moment, rather than as a definitive account of VBC's long-term viability in South Africa.

5.3 Recommendations of the Study

Based on the conclusions drawn from each research objective, the following four key recommendations are proposed to enhance the implementation and sustainability of VBC at PPO Serve and within the broader South African healthcare system;

5.3.1 Establish a dedicated value-based care innovation unit

The study recommends that PPO Serve establish a specialised, multidisciplinary innovation unit dedicated to designing, piloting, and scaling value-based care initiatives. This unit would serve as a centre of excellence to experiment with novel care pathways, technology integration, and patient engagement strategies tailored to the South African context. It would foster agile decision-making and rapid iteration, informed by continuous data feedback loops. Embedding this unit would ensure sustained focus and accountability on VBC transformation, encourage cross-departmental collaboration, and enable faster response to emerging challenges and opportunities.

5.3.2 Integrate social determinants of health (SDOH) data into care coordination

Recognising that social and economic factors strongly influence health outcomes, the study recommends that PPO Serve incorporate systematic screening and the integration of social determinants of health data into its VBC framework. This would enable tailored interventions addressing barriers such as poverty, housing instability, nutrition, and education—factors frequently overlooked in traditional medical models. By partnering with community organisations and social services, PPO Serve can offer holistic, patient-centred care plans that extend beyond clinical treatment to social support, improving adherence and long-term outcomes.

5.3.3 Implement patient-reported outcome measures as a core performance metric

To strengthen outcome measurement and genuinely centre care on patient perspectives, the study recommends that PPO Serve systematically collect and incorporate Patient-Reported Outcome Measures (PROMs) alongside traditional clinical indicators. PROMs capture patients' views on symptoms, functional status, and quality of life, providing nuanced data on care effectiveness that clinical metrics alone miss. Embedding PROMs into routine care enables more personalised treatment adjustments and fosters shared decision-making.

5.3.4 Leverage telehealth and mobile health solutions to expand access and continuity

Given the geographic and resource constraints in South Africa's healthcare system, the study recommends that PPO Serve aggressively expand telehealth and mobile health (mHealth) initiatives as core components of its value-based care model. Remote monitoring, virtual consultations, and digital patient education can enhance access, particularly for managing chronic diseases and preventive care, thereby reducing the need for costly hospital visits. This approach supports early intervention and empowers patients to take charge of their own self-care, aligning with the study's findings on the importance of patient engagement and adherence. Moreover, integrating telehealth with real-time data analytics can improve efficiency.

5.3.5 Align reimbursement models with value-based incentives

The study recommends that the South African government prioritise restructuring national reimbursement frameworks to reward quality and outcomes rather than service volume. Current fee-for-service models drive inefficiencies and limit incentives for preventative care. By introducing bundled payments, capitation, and shared savings models within the National Health Insurance (NHI), the government can establish financial mechanisms that encourage providers, such as PPO Serve, to invest in integrated, preventive, and coordinated care. Such reforms would set the foundation for scaling VBC nationally, while ensuring efficiency, accountability, and equity across both public and private healthcare sectors.

5.3.6 Establish a national value-based care policy and regulatory framework

The study further recommends that health policymakers develop and implement a coherent national policy framework to guide the standardisation, monitoring, and scaling of VBC initiatives across South Africa. This framework should define clear quality benchmarks, ensure interoperability of digital health data, and mandate the use of patient-reported outcomes in accountability measures. By embedding VBC principles into legislation and regulatory standards, policymakers can foster alignment among funders, providers, and communities. This would provide consistency across diverse healthcare settings, safeguard patient rights, and build systemic coherence necessary for sustainable reform under the NHI.

5.4 Contributions and Implications of the Study

The findings of this study have broad and significant implications for theoretical understanding, policy formulation, and practical application within healthcare organisations, particularly those operating in resource-constrained environments, such as South Africa.

5.4.1 Theoretical implications

This study contributes to the evolving body of knowledge on VBC by empirically validating the critical role of integrated care coordination, patient empowerment, and preventative strategies in improving health outcomes while controlling costs. It

advances existing health services theory by demonstrating how multidisciplinary collaboration and real-time data analytics reshape care delivery models in low- and middle-income country contexts. Furthermore, the study underscores the need to incorporate socio-cultural dimensions, such as organisational culture shifts and patient engagement frameworks, into VBC theoretical models. This integration enriches health management theory by emphasising the dynamic interaction between systemic infrastructure and human factors in achieving sustainable healthcare transformation.

5.4.2 Policy implications

The study highlights urgent policy considerations for healthcare governance and funding frameworks in South Africa. It highlights the need to realign policy towards financial incentives that prioritise value and outcomes over service volume, such as adopting bundled payments or capitation schemes. Policymakers are encouraged to prioritise investments in interoperable health information systems and data governance structures that facilitate outcome measurement and transparency. The findings also stress the importance of regulatory frameworks that support workforce development and cultural change, ensuring healthcare professionals are equipped and motivated to adopt VBC principles. Moreover, this study emphasises the importance of policies that promote cross-sector collaboration and integrate social determinants of health into healthcare planning to address the broader factors that influence patient outcomes.

5.4.3 Practical implications

From an operational perspective, the study provides actionable insights for healthcare organisations aiming to implement or scale value-based care models. It emphasises the need to strengthen data infrastructure, not only through technology upgrades but also through workforce training to enhance data literacy and utilisation. The findings advocate for embedding patient-reported outcome measures and leveraging telehealth solutions to enhance access, coordination, and patient engagement. Organisational leadership must prioritise cultural transformation initiatives to overcome resistance and foster a value-driven mindset across all staff levels. Additionally, this study demonstrates the financial viability of VBC when strategic reinvestment of cost savings is systematically pursued to improve quality and build

workforce capacity. Ultimately, these practical insights support improved governance practices focused on accountability, efficiency, and patient-centeredness.

5.5 Limitations of the Study

This study was conducted solely within the context of PPO Serve, which inherently limits the generalizability of its findings to other healthcare institutions that may differ in resources, organisational structure, patient populations, and regional healthcare challenges. The heavy reliance on qualitative data gathered through participant interviews introduces potential biases such as social desirability bias and recall inaccuracies, which may influence the authenticity and depth of the responses. Furthermore, the absence of complementary quantitative data limits the ability to empirically validate the reported improvements in patient outcomes, cost savings, and operational efficiency, thereby reducing the robustness of the conclusions.

In addition, the study's cross-sectional design provides a snapshot of value-based care implementation at a single point in time, limiting the ability to capture the longitudinal effects and sustainability of these interventions. The research also did not fully explore broader systemic and environmental factors, such as evolving health policies, economic fluctuations, and social determinants of health, that influence the adoption of value-based care in South Africa.

5.6 Recommendations: Further Research

Given the scope and limitations of this study, future research should investigate the longitudinal effects of implementing value-based care across multiple healthcare settings in South Africa, including public hospitals, rural clinics, and private healthcare providers. The following areas for further research are as follows;

- **Integrated mixed-methods evaluations:** Comprehensive mixed-methods research that triangulates qualitative insights with quantitative data to robustly evaluate the multifaceted impacts of VBC models on clinical effectiveness, financial sustainability, and healthcare workforce engagement.
- **Policy and economic framework analysis:** Critical investigations into the structural, policy, and financial barriers impeding VBC adoption, focusing on

reimbursement mechanisms, legislative support, and health system governance to inform scalable policy reforms.

- **Advanced digital health technologies:** Exploratory studies assessing the role of emerging technologies such as artificial intelligence, machine learning, and telehealth in enhancing data analytics capabilities, clinical decision support, and personalised care delivery within VBC systems.
- **Patient experience and equity research:** Focused research on how value-based care models address health disparities, particularly among vulnerable, marginalised, and socioeconomically disadvantaged populations, emphasising culturally competent care and patient empowerment.
- **Organisational culture and leadership dynamics:** Examination of the organisational change processes, leadership strategies, and cultural transformations necessary to facilitate effective and sustainable integration of VBC principles in healthcare institutions.
- **Capacity building and workforce development:** Evaluations of targeted training programs and continuous professional development initiatives that prepare healthcare workers to transition confidently to value-driven care delivery models.
- **Stakeholder collaboration and partnership models:** Investigations into the mechanisms, effectiveness, and outcomes of multi-sectoral collaborations, including public-private partnerships, in advancing the implementation and scalability of VBC initiatives.
- **Health equity and cultural competency integration:** Research focused on embedding equity and cultural competency within VBC frameworks to improve inclusivity and health outcomes for diverse patient populations, ensuring that value-based care addresses systemic social determinants of health.

5.7 Chapter Summary

This study explored the implementation of VBC and its impact on reducing healthcare costs without compromising quality within the South African healthcare system, with a specific focus on PPO Serve. The research drew on inferences from secondary literature reviewed in Chapter Two and primary data findings discussed in Chapter Four. The study employed a qualitative approach, conducting interviews with selected

participants whose views and experiences were thematically analysed. Themes were coded based on emerging patterns in the effectiveness, challenges, and outcomes of VBC implementation at PPO Serve, with further methodological details provided in Chapter Three. The primary study was limited to PPO Serve, enabling a focused analysis and revealing important conclusions about the VBC model's operationalisation and impact.

Despite its contributions, the study had limitations, including reliance on qualitative data from a single healthcare provider, which may limit the generalizability of the findings to the broader South African healthcare landscape. Additionally, the limited existing literature on VBC implementation in similar contexts constrained the synthesis of secondary data. However, the robust interview participation rate and the triangulation of primary data with existing scholarly insights strengthened the findings' validity and reliability. Overall, the study provides a valuable foundation for understanding how VBC can be strategically implemented in resource-constrained settings, highlighting areas for continued research and policy development.

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APPENDICES

Appendix A: Permission Letter



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520
<http://commerce.nwu.ac.za/business-school>

11 February 2025

GOODWILL PERMISSION: A STUDY CONDUCTED AT PROFESSIONAL PROVIDER ORGANISATION SERVICES (PPO SERVE)

I herewith wish to request your permission for PPO SERVE to participate in this research, which involves:

- enriching the body of knowledge on healthcare innovation in Low middle income countries (e.g. South Africa) by providing empirical evidence on the effectiveness of Value based healthcare in mitigating rising healthcare costs without compromising care quality.
- addressing critical gaps in the literature by exploring the challenges of implementing VBC in a context characterized by systemic inefficiencies, corruption, and inequities in access. For instance, the study highlights issues such as unlawful denial of coverage, overcharging, and underproviding care, which are prevalent in South Africa's healthcare system.
- analysing the abovementioned barriers and their impact on VBC implementation, the research offers valuable insights for future studies on healthcare reform in similar contexts.
- Using qualitative and thematic analysis which provides a methodological contribution, demonstrating how patient perceptions and health outcomes can be systematically evaluated to inform healthcare innovation.

Prior to granting permission, please acquaint yourself with the information below.

The details of the project are as follows:

TITLE OF THE PROJECT:

*Assessing the Efficacy of Value-Based Care in Mitigating Rising Healthcare Costs: A Case Study of PPO
Serve's Partnership with a closed medical aid*



Potchefstroom Campus: (+27) 18 299 1406

Mahikeng Campus: (+27) 18 389 2095

Vanderbijlpark Campus: (+27) 18 910 3011

PROJECT SUPERVISOR: Prof Ronnie Lotriet
ADDRESS: 110 Thabo Mbeki Way, Potchefstroom, 2520
CONTACT NUMBER: (018) 299- 1415

MEMBER OF PROJECT TEAM MBA-Student: Karabo Khunedl
ADDRESS: 31 Ixla road, Germiston
CONTACT NUMBER: 0614083330

Ethics Committee of the Faculty of Economic and Management Sciences (EMS-REC)
Chairperson: Prof. Mark Rathbone
Committee administrative coordinator: Ms. Delene Vorster (018 299 1529)

This study has been approved by the Research Ethics Committee of the Faculty of Economic & Management Sciences of the North-West University and will be conducted according to the ethical guidelines of this committee.

ETHICS APPLICATION NUMBER

[NWU-XXXXX-XX-XX]

What is this research about?

- How effective is the implementation of Value-Based Care in mitigating rising healthcare costs in South Africa, as evidenced by the PPO Serve's partnership with a leading medical aid group?

Participants

Participants who will be selected will fall into one of the following categories:

- A sample size of 12 participants within the target population which includes healthcare professionals and administrative staff involved in the implementation of VBC, are central in understanding practical issues and successes realized. This population ensures that the study captures a range of perspectives from those directly related to the VBC process

What is expected of the participants?

Participants will be expected to:

- Participate in a 45 – 60 min semi-structured interview with the researcher at a suitable time and private area without interruptions that is convenient for both parties via an online platform. This will be scheduled by the researcher once approved by the NWU ethics committee.
- Respond to the questions in an open and honest manner.
- Inform the supervisor should you feel or experience any form of discomfort or distress during the research process and inform the supervisor if you at times feel the need to terminate your involvement in the research process.

Benefits to the participants

This research study intends to give participants a voice to reveal, explain and reflect on Value Based HealthCare. No monetary reward shall be made available for participation in the study. They will however be furnished with a two-page communique on the outcomes of the study that they can utilize to further understand the effectiveness of value based healthcare in cutting the cost of healthcare in South Africa.

Risks involved for participants

Participation in this study does not create any physical risk to participants as the study does not involve any physical activities or experiments. We, however, have identified certain ethical principles that shall be always maintained to prevent any damage to participants. The focus of these principals will be to protect the dignity of participants and keep all records provided private and confidential.

Confidentiality and protection of identity

Participants will be assigned a unique participant ID. The interview will be recorded and saved with reference to the ID, but data collected shall be regarded as confidential and will not be shared with any 3rd party that is not directly involved in the research process. Personal details of participants and their direct input to the research study shall not be made public. All records of the research shall be kept for a retention period and destroyed by an appropriate means. The findings of the study will be made public however will not contain any raw data that might incriminate certain individuals. All records will be managed in accordance with POPIA guidelines.

Dissemination of findings

The findings concluded in the study will be for academic purposes and will only be utilized to add to the current body of available knowledge.

If you have any further questions or inquiries regarding participation in this research, please contact the researchers for more information.

DECLARATION BY THE RELEVANT RESPONSIBLE PERSON:

By signing below, I agree to give permission for the research to take place with the identified participants in the study entitled:

I declare that:

- I have read this information and consent form and understand what is expected of the participants in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and participants will not be pressurised to take part.
- Participants may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- Participants may be asked to leave the research process before it is completed, if the researcher feels it is in their best interests, or if they do not follow the research procedures, as agreed to.

Signed at (place) _____ on (date) ____/____/20____



Signature of Relevant responsible person

Appendix B: Informed Consent



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520

<http://commerce.nwu.ac.za/business-school>

01 April 2025

To: Potential interview participant

INFORMED CONSENT TO PARTICIPATE IN AN INTERVIEW

Date: _____

Participant code: _____

Title: Assessing the Efficacy of Value-Based Care in Mitigating Rising Healthcare Costs: A Case Study of a Healthcare in Gauteng Province.

Dear _____

I am Karabo Khunedi, a North-West University Business School MBA candidate. As part of my research for an MBA in Economics and Management Sciences, I am investigating whether Value-Based Care reduces healthcare costs without compromising quality of care within the South African healthcare system. This study aims to assess the efficacy of VBC in mitigating rising healthcare costs through a case study of a healthcare provider in Gauteng Province.

There are a total of eight sections with questions, and the interview will take approximately 45–60 minutes of your time to complete. Your participation is entirely voluntary and confidential. Your insights will contribute to a better understanding of how Value-Based Care reduces healthcare costs without compromising the quality of care within the South African healthcare system.

Important notices, terms and conditions:

- The study is part of a post-graduate qualification conducted by North-West University.

- This study is subject to the Protection of Personal Information Act (POPI Act 4 of 2013), and the researchers commit to complying with the regulations of this legislation. Any personal identifying information, such as demographics, will remain confidential.
- This interview is voluntary, and you are under no obligation to participate.
- You will have no negative consequences if you do not participate in the interview.
- Results will only be used and presented anonymously, and you will not be named at any time (We will use pseudonyms).
- By participating in the interview, you agree that the information you provide can be used for research purposes, specifically for potential academic publications and conferences.
- There are no correct or incorrect answers to any of the questions.
- This study has been approved by the Economic and Management Sciences Research Ethics Committee (EMS-REC), which reserves the right to audit this study to ensure compliance.

If you have any questions or concerns, please do not hesitate to contact the researchers. My promoter of the thesis is Prof. Ronnie Lotriet. He can be reached at Ronnie.Lotriet@nwu.ac.za for further questions or concerns about the research project. Should you have any questions or concerns, please do not hesitate to contact me at +27 61 408 5530 or via email at 48483516@mynwu.ac.za.

Thank you for considering this opportunity to contribute to a vital area of research.
Sincerely,

Karabo Khunedi

MBA Research Student

Student Number: 48483516

North-West University Business School

INTERVIEW GUIDE FOR SEMI-STRUCTURED INTERVIEW:

Assessing the Efficacy of Value-Based Care in Mitigating Rising Healthcare Costs: A Case Study of a Healthcare in Gauteng Province.

My name is Karabo Khunedi, and I am an MBA candidate at the North-West University Business School. The purpose of this interview is to assess whether Value-Based Care reduces healthcare costs without compromising the quality of care within the South African healthcare system.

Before we begin the interview, I would like to gather some demographic information to understand the participants' profiles better.

SECTION 1: DEMOGRAPHICAL ASPECTS

Q1: Could you provide some background about yourself?

- 2 What is your gender?
- 3 How old are you?
- 4 What is your position in the organisation?
- 5 How many years of experience do you have in this role?
- 6 What is your highest academic qualification?

SECTION 2: CURRENT STATE OF VALUE-BASED CARE IMPLEMENTATION

RO 1: To explore the current state of value-based care implementation at PPO and its effect on patient health outcomes.

- 1 Can you describe the current implementation process of Value-Based Care (VBC) at PPO Serve and its key features?
- 2 How do you assess the impact of VBC on patient health outcomes at PPO Serve? Are there any specific metrics or outcomes being measured?

- 3 In your experience, how has the shift to VBC influenced patient satisfaction and overall healthcare delivery?
- 4 What improvements, if any, have you observed in patient health outcomes since the introduction of VBC at PPO Serve?
- 5 How does PPO Serve ensure that the implementation of VBC is aligned with its goals of improving patient health outcomes while controlling costs?

SECTION 3: CHALLENGES FACED BY PPO SERVING IN IMPLEMENTING VALUE-BASED CARE

RO 2: To ascertain the challenges faced by PPO Serve in implementing value-based care within the unique healthcare landscape of South Africa.

- 1 What are the primary challenges PPO Serve has encountered in implementing VBC in the South African healthcare system?
- 2 How have issues such as limited healthcare infrastructure, funding, or staff training impacted the successful implementation of VBC at PPO Serve?
- 3 What role do regulatory or policy barriers play in hindering the full adoption of VBC in your organisation?
- 4 Have you experienced any resistance from healthcare professionals or patients regarding the VBC model? If so, how have you addressed these challenges?
- 5 How does the unique socio-economic and demographic context of South Africa affect the ability to implement VBC at PPO Serve effectively?

SECTION 3: INTERVENTIONS TO ENHANCE THE VALUE-BASED CARE IMPLEMENTATION

RO 3: To determine the interventions to enhance the value-based care implementation at PPO Serve

- 1 What interventions or strategies has PPO Serve implemented to address the challenges of VBC adoption, and how effective have they been?
- 2 In your opinion, what additional resources (financial, technological, or human) are needed to enhance the implementation of VBC at PPO Serve?
- 3 How could government policies or support systems be improved to facilitate the transition to VBC in South Africa?
- 4 What role does staff training and capacity building play in enhancing VBC implementation, and what initiatives have been introduced to address this?

5 What future interventions do you think are necessary to scale the successful implementation of VBC and achieve better patient outcomes in the long term?

IN CONCLUSION:

Is there anything else you would like to add regarding whether Value-Based Care reduces healthcare costs without compromising quality of care within the South African healthcare system?

Thank you for taking the time to participate in this interview. This concludes the interview.

Appendix D: Ethical Clearance



Private Bag X1200, Potchefstroom
South Africa 2520
Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>
Senate Committee for Research Ethics
Tel: 018 299-484
Fozwe.Meeleni@nwu.ac.za

8 September 2025

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North-West University Economic and Management Sciences Research Ethics Committee (EMS-REC) on 8 September 2025, the Economic and Management Sciences Research Ethics Committee hereby approves your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-REC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title:	Assessing the efficacy of value-based care in mitigating rising healthcare costs: A Case Study.																																														
Study leader/Supervisor (Principal Investigator/Researcher):	Prof R.A. Lotriet	University no.:	100663783																																												
Student:	K. Khunedl	University no.:	48483516																																												
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>6</td><td>8</td><td>7</td><td>-</td><td>2</td><td>5</td><td>-</td><td>A</td><td>4</td> </tr> <tr> <td colspan="3">Institution</td> <td colspan="5">Study number</td> <td colspan="2">Year</td> <td colspan="4">Status</td> </tr> <tr> <td colspan="15">Status: S = Submission; R = Re-submission; P = Provisional authorisation; A = Authorisation</td> </tr> </table>			N	W	U	-	0	0	6	8	7	-	2	5	-	A	4	Institution			Study number					Year		Status				Status: S = Submission; R = Re-submission; P = Provisional authorisation; A = Authorisation														
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Application type:	Single study - Postgraduate research	Risk level:	Low/minimal risk																																												
Commencement date:	9/8/25																																														
Expiry date:	9/8/26																																														
Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.																																															

Special in process conditions of the research for approval (if applicable):

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- The study leader/supervisor (principal investigator)/researcher must report in the prescribed format to the EMS-REC:
 - annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and
 - without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.
- The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EMS-REC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.
- Annually a number of studies may be randomly selected for an external audit.
- The date of approval indicates the first date that the study may be started.
- In the interest of ethical responsibility, the NWU-SCORE and EMS-REC reserves the right to:
 - request access to any information or data at any time during the course or after completion of the study;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;
 - withdraw or postpone approval if:
 - any unethical principles or practices of the study are revealed or suspected;
 - it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented;
 - submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or
 - new institutional rules, national legislation or international conventions deem it necessary.
- EMS-REC can be contacted for further information or any report templates through the secretariat, Botleryana Maluleka (Botleryana.Maluleka@nwu.ac.za / +27 16 2662436) or the chair Prof Diana Viljoen-Bezuidenhout (Diana.Viljoen@nwu.ac.za / +27 16 9103403).

The EMS-REC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EMS-REC or the NWU-SCORE for any further enquiries or requests for assistance.

Yours sincerely,

Prof Diana
Viljoen-
Bezuidenhout

Digitally signed by Prof
Diana Viljoen-
Bezuidenhout
Date: 2025.09.11
08:29:25 +0200

Prof Diana Viljoen-Bezuidenhout

Chairperson: NWU Economic and Management Sciences Research Ethics Committee

Appendix E: Editors' Certificate



Editing Confirmation

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10/11/2025

Report on dissertation by: Karabo Khunedi (48483516)

Dissertation title: Assessing the Efficacy of Value-Based Care in Mitigating Rising Healthcare Costs: A Case Study

This serves to confirm that the above document (excluding Table of Contents, List of Figures, and Reference list) was edited substantively by members of the KZN Language Institute's professional English language editing team. The document was returned to the author with numerous tracked changes and comments intended to correct errors and to clarify meaning. It was the author's responsibility to attend to these changes.

Please note that the final, corrected version of the document was not proofread by an editor from the KZN Language Institute.

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