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Policy Analysis of the Implementation of the Ideal Clinic Realisation and Maintenance Programme in Gauteng and Mpumalanga Provinces

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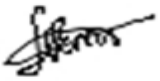
Doctor of Philosophy

October 2020

DECLARATION

This thesis is submitted in the integrating narrative format, approved by the Faculty of Health Sciences, of published work.

I, Immaculate Sabelile Muthathi, declare that this thesis is my original work. It is being submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. This thesis has not been submitted before for any degree or examination at this or any other University. I am aware that plagiarism is wrong, and I confirm that this thesis is my own unaided work except where I have explicitly indicated otherwise. I have read the sections on referencing and plagiarism in the Wits Plagiarism Policy. I have followed the required conventions in referencing the thoughts and ideas of others. I understand that the University of the Witwatersrand may take disciplinary action against me, including suspension or permanent expulsion, if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature 

Immaculate Sabelile Muthathi

20 October 2020

DEDICATION

TO FAMILY

This PhD is dedicated to my mother, Nomawesile Princess Tenza, who was deprived of education, but ensured that she educated all her children. I also dedicate this PhD thesis to my son, Ndivhuwo and my daughter Cebokazi who are still very young, and did not always understand why I had to work on my PhD thesis

PRESENTATIONS ARISING FROM THIS THESIS

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ABSTRACT

Background

The Ideal Clinic Realisation and Maintenance (ICRM) programme is a major health policy reform in South Africa, designed to address the deficiencies in the quality of primary health care (PHC) services, and to lay a strong foundation for the implementation of the National Health Insurance (NHI) system.

Aim

The aim of this PhD study was to analyse the implementation of ICRM programme. The specific objectives of the study were to:

1. Explore the policy context of the ICRM programme implementation.
2. Examine the roles and responsibilities of national, provincial and local government health departments.
3. Examine the network cohesion of inter-governmental relationships.
4. Determine the involvement of PHC facility managers in conceptualisation and their participation and decision space in the implementation of the ICRM programme.

Methodology

During 2017, a mixed methods study was conducted in the NHI pilot district of Gauteng (GP) and Mpumalanga (MP) provinces. Drawing on policy implementation, network and decision space theories, the PhD study consisted of three components: in-depth interviews with 37 key informants at national, provincial and local government; a survey among 123 PHC facility managers; and a social network analysis (SNA) of 22 and 26 health policy actors in Gauteng and Mpumalanga respectively. STATA® 15 and UCINET were used for quantitative data analysis, while thematic analysis was used to analyse the qualitative data.

Results

The context of the ICRM programme implementation was characterised by complexity, insufficient recognition of the roles and responsibilities of different government spheres, weak inter-governmental relationships, and unclear or diffuse accountability.

The SNA revealed non-cohesive relationships between the different spheres of government. In both GP and (MP) there was poor consultation in the ICRM programme implementation, illustrated by the low densities of seeking advice (GP=15.6%; MP=23.4%) and providing advice (GP=14.1%; MP=25.1%). The most cohesive relationships existed within the National Department of Health (NDoH) with a density (d) = 66.7%, suggesting that national policy actors sought advice from one another on the ICRM programme, rather than from the two provincial health departments. A density of 2.1% in GP, and 12.5% in MP illustrated the latter. The interactions regarding the ICRM programme implementation revolved around a few individuals (centralised networks), illustrated by the centralisation values of 0.5-0.8 in Gauteng Province and of 0.5-0.7 in Mpumalanga Province.

Only 48% of PHC facility managers were part of the very first meetings to discuss the ICRM programme. They reported narrow to moderate decision space on the critical areas of the availability of medicines and resuscitation equipment with mean scores of 17% and 21% respectively.

Conclusion

This PhD study has generated new knowledge on the context of ICRM implementation, inter-governmental relationships, and the interaction, response to or influence of health policy actors on this reform. The findings underscore the importance of context when planning nationwide health sector reforms, and the involvement of frontline managers in the design and planning to ensure long-term sustainability.

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ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of Variance
CCMDD	Centralised Chronic Medicine Dispensing and Distribution
D	Density
DCST	District Clinical Specialist Teams
DMTs	District Management Teams
GDP	Gross Domestic Product
GP	Gauteng Province
GPC	General Practitioner Contracting
HIV	Human Immunodeficiency Virus
HREC	Human Research Ethics Committee
HPRS	Health Patient Registration System
ICRM	Ideal Clinic Realisation and Maintenance Programme
IGR	Inter-Governmental Relationships
ISHP	Integrated School Health Programme
JL	Jonathan Levin
KI	Key Informant
KIIs	Key Informant Interviews
LG	Local Government
LR	Laetitia Rispel
MK	Mary Kawonga
MP	Mpumalanga Province
NCS	National Core Standards
NDoH	National Department of Health
NDP	National Development Plan
NHI	National Health Insurance
NHC	National Health Council
OHSC	Office of Health Standards Compliance
PDoH	Provincial Department of Health
PDSA	Plan, Do, Study, Act
PHC	Primary Health Care
PhD	Doctor of Philosophy

RDP	Reconstruction and Development Programme
REDCap	Research Electronic Data Capture
SAQ	Self-Administered Questionnaire
SDG	Sustainable Development Goals
SM	Sabelile Muthathi
SNA	Social Network Analysis
SVS	Stock Visibility System
UHC	Universal Health Coverage
UNDP	United Nations Development Programme
UN	United Nations
WBPHCOTS	Ward Based Primary Health Care Outreach Teams
WHO	World Health Organization
WISN	Workload Indicator for Staffing Needs
WSPH	Wits School of Public Health

CHAPTER 1: BACKGROUND AND CONTEXT

1.1 Introduction

Universal health coverage (UHC) is central to the achievement of the Sustainable Development Goals (SDGs) [1] and optimal health and well-being for all people [2]. UHC embodies three concepts: equity in access to preventive, curative, rehabilitative and palliative health services; good quality care to improve the health of those receiving health services; and financial-risk protection to ensure that the cost of health care does not put people at risk of financial hardship [3].

Within the context of UHC, the primary health care (PHC) approach is seen as its cornerstone [4]. This is because the PHC approach enables the delivery of essential health services based on need, community participation, and intersectoral collaboration to address the social determinants of health [5]. The original PHC approach was reiterated in the 2018 Astana declaration [6], albeit in a more mute form [7]. The 2019 High-level United Nations meeting on UHC highlighted the encouraging health and health care progress in many low-and-middle-income countries (LMICs), but expressed concern about the significant health inequities and gaps in service access that remain between and within countries [4]. The final Political Declaration underscores the urgency of accelerating progress on UHC [4]. Heads of States committed to specific actions, which include: UHC for an additional 1 billion people by 2023, implementation of high-impact, quality-assured, people-centred interventions and policies to protect people's health; and PHC as the most inclusive, effective and efficient health systems approach to achieve the SDGs [4].

In South Africa, the 1994 Reconstruction and Development Programme (RDP) provided an overall development framework to overcome the devastation of decades of discrimination, injustice and social and economic inequities caused by apartheid [8]. The RDP expressed a vision of a unified national health system, providing quality health care, and using a PHC approach [8]. The 1997 White Paper for the Transformation of the Health System [9] and subsequent National Health Act [10] enshrined the PHC approach as the foundation of the South African health system. The 25-year review conducted by the Presidency in 2019 highlighted the progress made since democracy in South Africa [11]. The most notable achievements are the improvement in the health status of

South Africans, increased access to essential health programmes, key interventions to strengthen the health system, especially at the PHC level, and government-wide programmes to address the social determinants of health [11]. The proposed National Health Insurance (NHI) system provides the policy framework to ensure UHC for all South Africans irrespective of their ability to pay [12]. The NHI is a health financing system that is designed to pool funds to provide access to quality, affordable health services for all South Africans irrespective of their socio-economic status [13].

Since 2009, the South African government has implemented a series of reforms to give effect to the proposed NHI system. One of these PHC level reforms is the notion of the "ideal clinic", defined as "a clinic with good infrastructure, adequate staff, adequate medicine and supplies, good administrative processes, and sufficient adequate bulk supplies" [14]: 23. Subsequently renamed the Ideal Clinic Realisation and Maintenance (ICRM), the notion of "ideal clinics" combines both a health care reform at PHC level and one that focuses on quality of care, albeit primarily the structural aspects of quality.

This PhD centres on a policy analysis of the implementation of the ICRM programme within the context of the proposed NHI system in two South African provinces. The PhD study brings together three strands at both conceptual and methodological levels: the policy context of ICRM programme implementation, the roles and relationships of various health policy actors, and the decision space of those health policy actors at the frontline of the implementation of the ICRM programme.

This chapter provides the background to and context of the PhD research study. The chapter is divided into six sub-sections. Section 1.2 summarises the global context and developments on UHC. Section 1.3 provides a brief overview of the South African health system, the context of UHC reforms, and the ICRM programme. Section 1.4 outlines the problem statement, section 1.5 the research questions, while 1.6 presents the study rationale. In section 1.7 the study aim and objectives are outlined. Section 1.8 presents the structure of this integrating narrative.

1.2 Global context and developments

Notwithstanding an apparent global consensus on the importance of UHC, several scholars have pointed out that there are different conceptual definitions of UHC, and debates on its long-term sustainability [15-18]. An overtly narrow focus on UHC has the potential to ignore the structural, social and political determinants of health, the need for a broader range of public health interventions, and "gross inequities and power dynamics associated with geographical region, class, gender, and ethnicity" [18]: 520. These diverse definitions and interpretations influence the policies and strategies pursued by different governments [16].

Many countries have made good progress, including the promulgation of specific UHC legislation and planned policies towards UHC [19]. However, in many LMICs the progress is uneven and implementation is patchy [20, 21]. The 2019 global monitoring report on UHC highlighted improvements in service coverage, although a substantial number of people continue to lack coverage for essential health services [22]. The reasons are complex, but include differences in country contexts, availability of resources, and the quality of health services provided [22]. A comprehensive assessment of UHC in 111 countries computed a UHC index that captures both service coverage and financial risk protection [21]. Although there were various assumptions used, the study found that UHC index scores were higher in high-income countries [21]. The greatest average yearly increases in the UHC index were seen in Ghana, Indonesia and Vietnam, mostly by improving both financial protection and service coverage [21]. However, the study found large variations in UHC achievement, which could not be explained by the share of GDP spent on health [21]. Importantly, the authors acknowledge that a major limitation is the high weight attached to inpatient admissions in the UHC index [21]. This means that the UHC index is not sensitive to PHC reforms. Other studies have found that visits to PHC facilities were low due to the poor quality of service delivered [23]. Quality in itself is a complex concept, but is a critical aspect of the achievement and sustainability of UHC [4, 24-26].

Given the importance of both PHC as the cornerstone of UHC [4] and quality to realise the benefits of UHC, it follows that quality improvements at PHC level should be central to UHC reforms [27-31].

1.3 South African Context

1.3.1 Overview of the South African Health System

South Africa is a constitutional democracy with three spheres of government, namely national, provincial and local governments [32]. The Constitution lists health services as a concurrent function of both national and provincial government [32], with varying perspectives on whether this provision is an advantage or disadvantage [33]. A raft of laws prescribe health service delivery, the most important of which is the National Health Act [10]

The South African health system is characterised by an under-resourced public health sector that provides care to the majority (around 84%) of people, and a large private health sector that provides care to people with private health insurance (around 16%) [34, 35].

Figure 1 provides a schematic overview of the public health sector in South Africa. The National Department of Health (NDoH) is responsible for the stewardship of the entire health system, including health policy development, resource allocation, monitoring and evaluation [10]. Provincial health departments are responsible for implementation of national health legislation, and policies [10]. There is considerable variation across the nine provinces in resource availability, implementation capacity, and management of health sector reforms [36]. These variations in turn impact on population health outcomes [37]. All public sector hospitals are owned and managed by provincial health departments, and the head of the provincial health department remains the accounting officer, rather than the chief executive officer of the relevant hospital [38].

Both the 1997 White Paper for the Transformation of the health system in South Africa [9] and the National Health Act underscore the district health system (DHS) as the main vehicle for the delivery of PHC service delivery [10]. Each district health boundary is co-terminous with that of the local authority municipal boundary [10]. Hence, there are 52 health districts in South Africa, because there are 52 municipalities.

In 2010, the NDoH embarked on a process of revitalisation of PHC through the DHS [39]. District management teams (DMTs) and district managers are responsible for leadership and management within the relevant district, and for implementation of health policies and health sector reforms in the various facilities [39].

Each health district is divided into sub-districts, which are geographical areas with population sizes that are closer to the WHO recommendation on the size of a health district [40]. There are also a variable number of PHC facilities in each district that include community health centres, fixed clinics, mobile and satellite clinics [37].

1.3.2 The evolution of UHC reforms

South Africa's health reforms since democracy in 1994 have been designed to overcome decades of apartheid's racial discrimination, human rights violations and neglect of the majority of black citizens [41]. However, the 2012 National Development Plan (NDP) set the stage for social and economic reforms to achieve health and wellbeing for the country by 2030 [42]. The NDP underscores the NHI as a primary vehicle for achieving UHC [42], while the NHI Green Paper [13] and White Paper [43] highlighted some of the initial thinking on the envisaged reforms [43]. Subsequently, in 2017 the final NHI policy was published [12] , while the NHI Bill was published in 2019 [44].

The NHI is envisaged to be implemented in phases [43], starting with a "pilot phase" in 2012 which commenced with the identification of 11 pilot sites in each of the nine South African provinces [43]. The pilot phase focused on implementing a number of programmes to improve the state of service delivery in the public health facilities, and to test some of the programmes that would be necessary for NHI [45] (Table 1). In all the NHI policy documents, well-functioning PHC was emphasised as the foundation for the NHI [12, 43, 44]. Indeed, a 2013 review of PHC found that there has been significant progress in each of the reform areas of universal access, service delivery, public policy and leadership [46]. However, in 2013, there was considerable uncertainty about the NHI and the overall implementation process as well as a perceived lack of prioritisation of PHC and the DHS [46]. Consequently, most of the pilot programmes were tested at PHC facilities within the pilot districts to enhance the capacity of districts in NHI implementation.

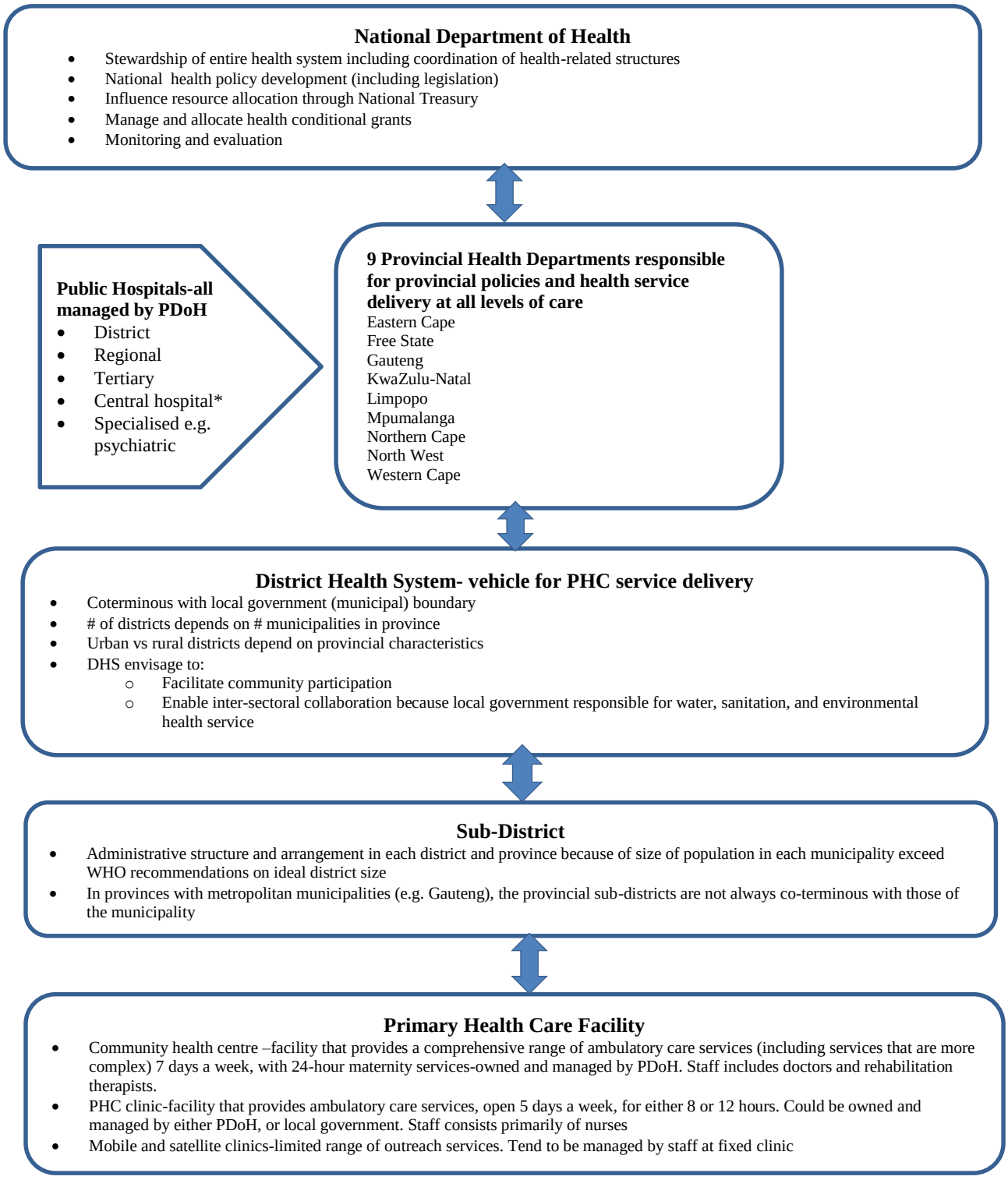


Figure 1 Schematic presentation of the South African public health sector

Sources: [9, 10, 32-37, 39, 40]

Legend::PDoH=Provincial Department of Health; * there are 10 central hospitals in South Africa, all linked to health science faculties, with some provinces such as North West and Northern Cape without any central hospital.

Concomitant with the NHI reforms, were other initiatives to improve quality of care, as it remains the Achilles heel of the South African health system [47]. Importantly, improvement in the quality of care especially in the public health sector, has been an ongoing government concern [48]. Since 1994, numerous quality of care initiatives have been implemented, although their impact has been sub-optimal, because of fragmentation and lack of an overall health systems approach [48]. The establishment of the Office of Health Standards compliance (OHSC) in 2013 as a legal entity is seen as a game-changer [49]. The mandate of the OHSC is to ensure quality and safety in health care in South Africa, through inter alia inspecting all health establishments in South Africa for compliance and monitoring adherence to the national quality standards [49].

Table 1 A list of programmes implemented in the NHI pilot districts

Programme	Description
Ward Based Primary Healthcare Outreach Teams (WBPHCOTS)	A team of healthcare workers visiting households to provide promotive and preventative health care to the community.
Integrated School Health Programme (ISHP)	A programme focused on taking healthcare services to the schools.
General Practitioner (GP) contracting	Contracting private general practitioners to address the lack of doctors at PHC facilities and to improve acceptability of care at clinics.
Ideal Clinic Realisation and Maintenance (ICRM) programme	Aimed at improving compliance of PHC facilities with the national core standards of the OHSC.
District Clinical Specialist Teams (DCST)	Teams of multi-disciplinary health care specialists supporting, improving and monitoring quality of clinical services, especially maternal and child care.
Centralised Chronic Medicine Dispensing and Distribution (CCMDD)	A programme focused on provision of chronic medication at designated pick up points closer to the communities to improve access to chronic medicines for stable patients and to reduce long queues in PHC facilities.
Health Patient Registration System (HPRS)	An electronic patient record keeping system to improve national electronic health record repository, and access of all facilities to the records at all other facilities.

Stock Visibility System (SVS)	An electronic stock monitoring system to detect shortage of essential drugs in the facilities.
Infrastructure projects	Aimed at improving infrastructure in public health sector establishments
Workload Indicator for Staffing Needs (WISN)	The application of the WHO human resource planning tool to help PHC facility managers to improve staffing decisions.
Referral system	A planned coordination of referring patients from one level of care to another.

Sources: [50, 51]

Ultimately, the progress with or success of UHC reforms could be assessed through an index that combines coverage of essential health services and financial risk protection. In 2019, an overall UHC index of 56.9 was computed for South Africa [52]. There were also provincial variations: the Western Cape and KwaZulu-Natal had the best UHC index value of 58.8 among the provinces, while Limpopo and North West had the worst values, at 53.7 and 53.8 respectively [52]: 256. Although the authors acknowledged data limitations, the index suggests the inequities and the scale of the effort required in South Africa to obtain a higher UHC index.

1.3.3 Ideal Clinic Realisation and Maintenance Programme

The ICRM programme "aims to systematically transform all PHC facilities in order to meet national standards in preparation for the introduction of NHI" [53]: 112. The national standards refer to those under the ambit of the OHSC. Although planning started in 2013, implementation of the ICRM programme commenced in 2015 with a target that all 3477 PHC facilities should meet the required standards by April 2018 [53]. The programme was designed to apply a "plan, do, study, act" (PDSA) cycle of quality improvement, to evaluate and grade PHC facilities on a quarterly basis [14].

The NDoH spearheaded the ICRM programme, designed the ideal clinic manual and tools and set the expected targets [14]. Although there are indications that there was stakeholder involvement, [14] the extent of this involvement is not clear, both across the different spheres of government, and with frontline health workers.

The ICRM programme manual outlines the roles and responsibilities of different health policy actors. The role of the local government is to ensure functional sewerage systems and water supply [54]. This suggests an insufficient consideration of the role of local government in health service delivery, especially in the large metropolitan municipalities. For example the role of prescribing the dress code for service providers is assigned to the relevant Provincial Department of Health (PDoH) [54], but in districts where there are both provincial and local government managed facilities PHC facility personnel had different dress codes in the same districts. There are other overlapping roles and responsibilities, such as staff parking, fencing and guard room assigned to both district and provincial officials [54]. The PDoH was assigned the responsibility for signing service level agreement with security companies that guard the facilities, but the role of making sure that the agreement is in place was assigned to the district [54]. These identified overlaps could introduce confusion of who should fulfil a particular function.

In 2017 when this PhD research was conceptualised, there were no published scientific papers on the ICRM programme. In 2016, one year after the ICRM programme implementation, the NDoH reported that only 9% of the facilities nationwide had met the ICRM programme requirements [55]. However, the reasons for the lack of compliance and/or challenges with implementation had not been researched. One of the first published papers on ICRM programme focused on the impact of the ICRM programme on waiting times [56]. The study found that the ICRM programme resulted in improved waiting times, but this was conditional on the successful implementation of a clinic appointment system [56]. However this study was only conducted in nine facilities in KwaZulu Natal province, and only focused on one indicator in the ICRM programme.

1.4 Problem statement

There are three major problems with the implementation of the ICRM programme as a centrally driven health policy reform at the PHC level. Firstly, the South African Constitution lists health services as a concurrent functional area of both national and provincial levels [32]. The Constitution grants the national level the power to pass national legislation, set norms and standards, relate to international organisations and monitor the delivery of health care [32]. The Constitution also assigns responsibility to provinces for the planning and delivery of services. Although the Constitution grants local government the responsibility for the delivery of municipal health services, these services are defined as environmental health services in the National Health Act [10, 32]. However, in the large metropolitan municipalities, local government owns and

manages PHC facilities, and also employs health professionals. The legislative concurrency means that provincial health departments and those municipalities that provide PHC services should be involved in the conceptualisation, planning and the implementation of the NHI projects or initiatives. Hence, one of the research questions is whether, and to what extent, health policy actors at the different government spheres have been involved in the conceptualisation, design and/or implementation of the ICRM programme.

Secondly, both the Green and White Papers are silent on the role of sub-national government, namely provincial and local government in the implementation of the NHI projects [57]. The 2017 NHI policy acknowledges that there is a need to clarify the roles and responsibilities of the three spheres of government with respect to the delivery of healthcare services to enable NHI implementation [12]. Given the legislative concurrency, and the apparent lack of role clarity in the NHI policy documents, another research question is the context of ICRM programme implementation, the interaction of policy actors with this context, and how the context influenced the actors. In addition, is there coherence between the ICRM programme (which focuses on improving quality of care at PHC level), and the programmes of the OHSC (as the juristic person responsible for inspecting health facilities and ensuring compliance with the National Core Standards)?

Thirdly, existing evidence suggests that the active participation and/or involvement of frontline health managers and/or health worker in the development of policies and strategies are critical ingredients for the success of major health sector reforms [58]. This is because they are mediators or gatekeepers on the interpretation and implementation of policies [59, 60], and their involvement in policy development enhances ownership and sustainability of the relevant policy [61, 62]. Although there is evidence of some stakeholder engagement in the implementation of the ideal clinics [14, 43], there is a dearth of empirical studies on the nature and extent of involvement of frontline managers in the conceptualisation and decision-making on the ICRM programme and its implementation.

1.5 Research questions that emerged from the ICRM programme

The PhD study was conceptualised to generate new knowledge on the various research questions, listed below.

a. What was the context of ICRM programme implementation? What is the rationale for the ideal clinic? What is philosophy behind the ideal clinic? What progress has been made on the ideal clinics implementation since the launch of the NHI pilots? What challenges or contestations on the ideal clinics implementation since launch of the NHI pilots?
b. What was the interaction of the policy actors with this context? Did the context influence the policy actors?
c. Did the policy actors in turn influence this context? How did they influence this context?
d. What is the relationship between the ICRM programme (which focuses on improving quality of care at PHC level), and the programmes of the OHSC (as the juristic person responsible for inspecting health facilities and ensuring compliance with the National Core Standards)? Is there coherence in these programmes?
e. In light of the legislative concurrency enshrined in the South African Constitution, were health policy actors at the different government spheres involved in the ICRM programme conceptualisation, design and/or implementation? If yes, what was the extent of their involvement?
f. What were the prescribed versus actual roles and responsibilities of health policy actors at the different spheres of government?
g. What was the nature of the inter-governmental relationships among these different government spheres?
h. What was the nature and extent of involvement of frontline managers in the conceptualisation, decision-making on and/or implementation of the ICRM programme and its implementation? What are the narratives or interpretation of frontline managers of the ICRM programme?

1.6 Study rationale

Firstly, the NHI policy is new in South Africa, with the first phase focusing on strengthening the public health sector service delivery through initiatives such as the ICRM programme. Most of the existing reports on the ICRM programme in South Africa are by the NDoH [14, 53, 55]. There is a dearth of empirical studies on the ICRM programme, hence, this PhD was one of the first, empirical studies to examine the implementation of the ICRM programme.

Secondly, UHC reforms are long term policies that require continuous monitoring, evaluation, independent analysis and continuous learning, to inform revisions and/or improvements [63]. This PhD examined the evolution of the ICRM programme, the context of implementation, the roles and responsibilities of national, provincial, and local government health departments, inter-governmental relationships and the involvement and participation of various policy actors. Consequently, the PhD generated new knowledge that provides lessons for the future implementation of the ICRM programme, or for similar NHI reforms in South Africa. The lessons will be relevant for similar programmes in other LMICs.

Lastly, the PhD was conceptualised to add to the body of policy implementation research of a PHC reform in South Africa.

1.7 Aim and objectives

The aim of this study was to analyse the implementation of the ICRM programme as a major health policy reform in Gauteng and Mpumalanga provinces, thereby contributing to the discourse and the development of recommendations on the proposed NHI system.

The specific objectives of the study were to:

1. Explore the specific, structural and wider policy context of the implementation of the ICRM programme.
2. Examine the roles and responsibilities of different levels of government health departments in the implementation of the ICRM programme.
3. Determine the cohesiveness of inter-governmental relationships (the network) in the ICRM programme implementation.
4. Determine the perceptions of PHC facility managers on:
    a. Involvement in the conceptualisation of the ICRM programme.
    b. Participation in the implementation of the ICRM programme.
    c. Decision space in the implementation of the ICRM programme.

1.8 The structure of the integrative narrative

Chapter 1: This chapter has highlighted the global context and developments on UHC, provided a brief overview of the South African health system, the national context of UHC, the importance of PHC, and the ICRM programme. The problem statement, research questions, study rationale, aims and objectives were also outlined.

Chapter 2: This chapter presents a critical review of the literature relevant to the study objectives.

Chapter 3: This chapter describes the methodology of the PhD study.

Chapters 4-6 Present the study findings under the following headings:

Chapter 4: Policy context of the implementation of the ICRM programme

Chapter 5: Inter-governmental relations in the implementation of the ICRM programme

Chapter 6: Decision space and participation of PHC facility managers in the ICRM programme implementation

Chapter 7: This chapter provides an integrated discussion and conclusion that brings together all the elements of the PhD thesis.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In line with the research objectives, this chapter presents a critical discussion of the literature on policy implementation and health sector reforms, with a particular focus on primary health care (PHC) reforms. Although the concepts are interrelated, each is discussed separately for the sake of clarity. The chapter begins with the definition of terms used in the PhD thesis. Sections 2.3 to 2.6 present a summary discussion of the literature on policy context, inter-governmental relations (IGR), roles, and responsibilities, and lastly decision space, and involvement of stakeholders in policy development.

2.2 Definitions of terms

Consultation

Consultation refers to a "direct communication between policy-makers and affected actors where feedback is received in the policy process about the feasibility of policy choices, the legitimacy of adopted measures and the potential challenges in policy implementation" [64]: 47.

Decision Space

Decision space is defined as the degree of authority based on formal (based on law) or informally (discretionary) defined rules, given to local authorities, by a central authority [60]. Hitherto, studies on decision space have focused on provincial and/or district level actors. The primary focus of the study was on the PHC facility managers' decision space as they were the primary implementers of the ICRM programme. Hence, in this study, decision space is the degree of authority given to the PHC facility managers by the NDoH (central authority); in line with the

	facility managers' functional areas in the ICRM programme implementation.
Ideal clinic	An ideal clinic is defined as a clinic with "good infrastructure, adequate staff, adequate medicines and supplies, good administrative processes, with sufficient bulk supplies and it uses applicable clinical policies, protocols and guidelines, and it harnesses partner and stakeholder support" [65]:11.
Ideal Clinic Realisation and Maintenance (ICRM) programme	ICRM programme is an approach to transform all PHC facilities of South Africa to comply with the norms and standards prescribed by the Office of Health Standards Compliance (OHSC) [14].
Information sharing	Information sharing refers to "sharing of tacit and explicit knowledge in the form of formal documents or informal talks "[66]:4.
Inter-governmental relations (IGR)	IGR refer to an "interacting network of institutions at national, provincial and local government, created and refined to enable the various parts of government to work in a collaborative and coherent manner" [67]:1.
National Health Insurance (NHI) System	The NHI is a health financing system that is designed to pool funds to provide access to quality, affordable health services for all South Africans irrespective of their socio-economic status [12].

Network	A network refers to a set of relationships (interactions) between two or more actors, who can be individuals, groups or organisations [68]. The interactions are referred to as a connection or a tie [68].
Network boundary	Network boundary is a set of inclusion and exclusion criteria for actors in the network under examination [69].
Network centralisation	The extent to which the network ties (connections) are focused on a few people in the network [70].
Network density	Network density is the number of present ties out of maximum possible ties. It indicates whether each actor is connected to all possible ties in a network [68].
Network matrix	Network matrix is an indication of the presence or absence of ties recorded on a spreadsheet [69].
Network structure	Network structure, measured by density and network centralisation, refers to the connectedness or cohesion of the interactions or relations amongst actors who belong to the network under examination [70].
Policy coherence	Policy coherence is the ability of policies to reinforce one another, create synergies towards one goal while providing actors with non-conflicting required actions in addressing a policy problem [71].

Policy	A policy is defined as a "broad statement of goals, objectives and means that create the framework for activity, and can take the form of explicit written documents, but may also be implicit or unwritten" [72]: 4.
Policy context	Policy context is the background against which policy decisions are made, policy processes take place and stakeholders or actors engage with the policy [73].
Policy implementation	Policy implementation refers to the execution of the policy "translating the goals and objectives of policy into action, it requires stakeholders and organisations to work together to put policies into effect" [74]: 538.
Social Network Analysis	Social network analysis is defined as the process of investigating social relationships between people or organisations [69]. The approach is informed by principles that networks have a structure and properties which influence access to resources and actor performance [75].
Support	Support refers to encouragement, motivation and/or resource/ technical assistance in the ICRM programme implementation.

2.3 Context, health sector reforms and policy implementation

The first objective of this PhD study was to explore the specific, structural and wider policy context of the implementation of the ICRM Programme in Gauteng and Mpumalanga provinces of South Africa. This is because policy context fundamentally shapes the design, implementation and outcomes of health sector reforms [76]. An analysis of policy context also explains and gives meaning to the relevant policy or health sector reform [76]. Such analysis also enhances the knowledge on the complex determinants of effective policy formulation and implementation of health sector reforms in different countries [76]. In contrast, failure to analyse policy context could lead to misconceptions over the role, appropriateness, policy process and political feasibility of health sector reforms [76].

Numerous scholars have examined the ***policy context*** of health sector reforms, both conceptually and empirically [76-88].

In 1994, Walt and Gilson proposed a framework for policy analysis, with a particular focus on its application in low-and-middle-income countries (LMICs), where there was a dearth of policy analysis studies [87]. The health policy analysis framework combines policy content, actors, process and context [87]. Context refers to political, economic, social and/or cultural factors, both at national and international levels [87]. At the centre of the framework are the actors involved in policy reform [87]. This framework has been applied in several countries, including in South Africa [89-93].

Collins et al adapted and combined different policy analysis frameworks in a 1999 multi-country study [76]. The study included seven countries of different levels of development, and focused on four categories of the policy process: the structural context, the policy content, the policy actors and the processes of decision-making [76]. The authors identified common problems facing governments in policy-making for health sector reform. These problems include the lack of internal policy-making capacity, insufficient evidence, external imposition of reforms, top-down implementation and the lack of ownership among key stakeholders [76]. The authors concluded that an analysis of policy context is critical for policy formulation and implementation, and to

understand country-specific complexities, and the interrelationships between contextual factors, and political interpretations [76].

Since 2000, there has been an encouraging increase in the number of studies that have examined policy context in the implementation of specific health policies, UHC reforms, or its components (Table 2). These studies have used a range of methodologies, including document reviews, focus groups discussions, in-depth interviews, and quantitative methods [94-96]. The limitations of these studies include contextual differences, the exclusion of frontline policy actors, narrow focus and/or limited study settings [94-97].

Table 2 Summary of studies that have examined policy context

Country	Type of policy/ health reform	Contextual factors
Asia		
India [97]	Implementation of the Primary Health Care (PHC) approach in rural peripheral health units in India	• Macro issues - ideologies and fiscal choices • Micro issue- norms and day-to-day behaviours of policy actors
Myanmar [98]	UHC	• Catastrophic health spending
Thailand [99]	UHC	• Political will • Commitment to UHC • Strong PHC foundation • Accountability structure • Participation of civil society
Vietnam [63]	UHC	• Inclusive process
Iran [95]	Health transformation plan in PHC	• Political will • Prioritisation of health • Preventive and comprehensive approach to health
Eastern Mediterranean		
Bahrain Egypt Lebanon Qatar Sudan United Arab Emirates [100]	PHC policy implementation	• Lack of understanding of policy • Limited budget • Insufficient training
Africa (excluding South Africa)		
Ghana [101]	UHC	• Political will • Commitment by government • Stakeholders and public cooperation • Ownership and participation
Ghana [102]	Alignment of National Health insurance Scheme and PHC goals	• Inadequate funding • Inadequate coordination amongst stakeholders in PHC delivery • Lack of understanding of policy
Nigeria [103]	UHC	• High-level political support • Strong leadership

		• Management of stakeholders' interests •
Seychelles [104]	UHC	• Investment in infrastructure, equipment • Investment in education and training • Separation of functions
Tanzania [94]	Contracting out of PHC services	• Lack of capacity of district managers • Dependency on national funding
South Africa (SA)		
SA [46]	Review of PHC reforms since democracy in four areas of : universal coverage, healthy public policies, leadership, people-centred services	• Insufficient leadership/stewardship • Policy uncertainty on NHI • Fragmented or lack of sustainable funding • Sub-optimal community participation • Resource constraints • Poor monitoring and evaluation
SA [105]	First phase of implementation of community oriented primary care	• Relationship between government and non-governmental organisations • Employment status and remuneration of health post staff • Relationship between health providers and communities

As can be seen in Table 2 contextual factors range from political commitment, through to the behaviours of health policy actors. Although some studies have explored PHC reforms [94, 95, 97, 100], the ICRM programme appears to be a very specific UHC reform in South Africa, that is aimed at improving quality at the PHC level. This PhD was one of the first studies to explore the policy context of the implementation of the ICRM programme.

2.4 Role, responsibilities and IGR in implementation of health sector reforms

The second and third objectives of this PhD were to examine the roles and responsibilities of

national, provincial and local government health departments, and inter-governmental relations (IGR) in the ICRM programme implementation. These objectives are inter-dependent and hence discussed together.

A scholarly focus on roles and responsibilities is important because lack of role clarity, confusion, and unclear expectations of policy actors influence the implementation of health sector reforms [82, 106, 107]. Clarity of roles and responsibilities enables effective communication, and facilitates mutual respect and recognition of the value of each sphere of government [82, 106, 107]. Similarly, the purpose of IGR is to promote co-operative decision-making, prevent disputes and conflicts between different spheres of government, and to ensure the implementation of policies [108, 109]. Hence, research on IGR could generate new knowledge on whether the intended benefits of IGR are realised during the implementation of a health sector reform.

Several studies have shown that roles, responsibilities, and IGR are influenced by the type of government in a country (federal or unitary government), the degree of decentralisation of the health system, and the existence of specific legislation (such as constitutional guidelines) [110, 111]. Phillimore has pointed out that studies on IGR pose difficulties for generalisation and theorisation, because many aspects of IGR are informal, reflective of each country's national characteristics [109]. Nonetheless, there are numerous studies on IGR, roles and responsibilities, albeit primarily from public administration, or political science perspectives [109, 111-117]. The specific focus of the studies varies, from analyses of the different dimensions of IGR, institutions and processes, and the extent of formality of IGR [109, 111-117].

There is an emerging literature on IGR in the health sector. In 2018, a multi-country case study on federalism and decentralisation in the governance, financing, administration and delivery of health care in Brazil, Canada, Germany, Mexico, Nigeria, Pakistan, South Africa and Switzerland found wide variations among the selected countries [118]. These variations were influenced by country context, resource availability and human resource capacity [118].

Notwithstanding differences in country contexts and methodologies, IGR studies in the health sector have highlighted the importance of the stewardship role of the federal or national government, whether in legislation, donor coordination and/or resource allocation [119-121].

Several studies have highlighted the benefits of co-operative governance, and shared decision-making. An Australian study found that strong partnerships between State and Territory governments, facilitated the successful implementation of the National Partnership Agreement on Preventive Health [122]. In Sweden, a study on the implementation of a comprehensive national policy of improving quality of care for the elderly found that collaboration among actors from different government levels, combined with targeted communication, improved their understanding and commitment [123]. A study on UHC and governance functions in the Asia-Pacific Region found that collaboration across government improved IGR and accountability [124]. Similarly, a study in Indonesia on health insurance for the poor found that collaboration between provincial and local government leaders led to increased commitment to achieve UHC [125]. In Nigeria, a 2015 study on UHC found that in areas where authority is shared between federal and state governments, the active involvement of states in decision-making on health sector reforms enhanced their ownership, and subsequent implementation [103].

Studies have reported mixed results on decentralisation of health services ranging from success of local government in Norway in taking decisions on PHC [126], to confusion in decentralised roles and responsibilities in Tanzania [127].

Studies have also highlighted various challenges in IGR, roles and responsibilities. These challenges include tensions between centralisation and decentralisation, efficiency and accountability, the rule of law and flexibility, and effectiveness and consultation.

Studies in the USA, Canada, Russia and Australia have identified the challenges between centralisation and decentralisation in federal states, exacerbated by unclear powers or responsibilities of sub-national government [128-131].

In the Republic of Moldova, a 2015 study reported both on tensions between centralisation and

decentralisation, as well as tensions between the rule of law and flexibility [132]. The Moldovan national government is responsible for legislation on health reforms, and for providing tertiary healthcare services, while the local government is responsible for PHC. However, the study found that the national government continued to be involved in PHC decision-making at local government level [132].

Several studies in Brazil found that despite the representation of states and local government on national councils and inter-governmental committees, sub-national government had a limited role in health care decision-making, and their opinions were not taken into account in policy development [133-135]. The studies highlighted that IGR involve both the formal aspects of laws and institutional arrangements, as well as the informal aspects of power, collaboration, mutual respect, and positive relationships [133-135].

Some studies have demonstrated the negative consequences of dysfunctional IGR. A study in the United States reported on the conflicts between federal and state governments on the Medicaid programme reforms, which aimed to extend health insurance coverage for low-income individuals [136]. The conflicts created variations and discrepancies in the adoption, implementation and service coverage across various states [136]. Similarly, a study on long-term care reform in Italy found that the weak and uncertain legislative framework of federalism, combined with uncertainty in the allocation and distribution of resources and the delay in applying the equalisation mechanism contributed to policy implementation failure [137]. In China, a study that examined IGR in the emergency response to major accidents found that weak relationships between private and public organisations at the central, provincial, and municipal government levels contributed to slow response times [138].

In Nigeria, a study on health sector reforms and sustainable development found that the lack of role clarity on the roles of the three levels of government in health sector reforms, has caused poor coordination, duplicated efforts, health resource wastage and poor accountability [106]. Another Nigerian study on accountability of government actors on PHC reforms found that poor accountability by the government health departments was exacerbated by the responsibilities of multiple line-ministries for the administration of PHC services. The latter resulted in poor

supervision and misaligned accounting structures [139]. In Ghana, unclear guidelines on coverage of their NHI forced the frontline staff to use their own discretion on who is to be covered, leading to inconsistencies in practice [107].

In South Africa, lack of role clarity has been reported in the community health worker [140], and district-based clinical specialist teams [141] programmes, which in turn influence the reported success of these programmes. However, both these studies used small, qualitative case study methodologies [140, 141]. Other studies in South Africa in public administration and public management have reported unclear roles leading to conflicts, unfunded mandates and poor commitment to service delivery [112, 142-144].

The majority of the studies on roles, responsibilities and IGR used qualitative methodologies, such as document reviews and/or interviews [133-135, 137]. There is a dearth of studies that used social network methodology to examine IGR, especially in the implementation of the ICRM programme.

2.5 Involvement, participation and decision space

The final objective of this PhD study was to determine the involvement of PHC facility managers in the conceptualisation of the ICRM programme, and their involvement and decision space in the implementation of the ICRM programme.

There is global recognition of the importance of the involvement of policy implementers in the conceptualisation and/or design of policies, so as to ensure successful policy implementation [62, 145-148]. Cornwall suggests that participation in policy development should be interactive, and genuine, for the mutual purpose of learning [149].

Notwithstanding this recognition, numerous studies have demonstrated the lack of, or insufficient involvement of policy implementers in the process of health policy or health sector reforms [150, 151], with resulting negative consequences. In Thailand, a study on UHC implementation, found that the lack of involvement of frontline managers led to the exclusion of essential medicines in the service package [152], In India, the frontline implementers exclusion in the policy development of health service coverage in the national insurance scheme led to uncertainties of who is covered [153]. In Iran, a policy analysis of the PHC transformation plan found that the exclusion of frontline staff from policy development led to different interpretation of policies, and a missed opportunity to advocate for resources [95].

Similarly, studies in Burundi on the abolition of user fees [154] and in Nigeria on the Community Based Health Insurance Scheme [155] found that insufficient involvement of front-line managers and local government officials respectively resulted in unclear policies [154] and lack of buy-in, thus affecting implementation.

In South Africa, several studies have reported the negative consequences of insufficient or lack of involvement of staff responsible for implementation. A study that examined contracting of private general practitioners (GPs) to provide care in public PHC facilities found that insufficient involvement or consultation with these GPs led to their dissatisfaction with remuneration rates, and a poor sense of ownership of the initiative [156]. Similarly, studies found that poor consultation with, or lack of involvement, of front-line staff negatively affected the implementation of the PHC outreach team programme [157] and the district-based clinical specialist teams programme [141]. Both these programmes are part of the PHC re-engineering programme in South Africa.

Originally conceptualised by Bossert in 1998 as a tool to measure the extent of decentralisation from central to local government, the notion of decision space provides a novel approach to examine the participation of front-line managers or implementers. The majority of studies on decision space have focused on the decision space of district managers regarding the functions of planning, finance, service organisation, governance and human resource management [158-161]. These studies have demonstrated the variations and idiosyncrasies across different geographical settings in each of the five functional areas [118].

Some studies have focused on the relationship between decision space and institutional capacities. A case study from Karnataka, India on the implementation of the National Rural Health Mission, a programme for strengthening PHC, found that inadequate capacity of managers at district and sub-district coupled with narrow decision space over finance, undermined the achievement of the National Rural Health Mission goals [162]. In the Philippines, a qualitative study on the perceptions of health personnel at the district and sub-district levels found that despite more than 20 years of a range of devolved functions, managers continued to have moderate or narrow decision space, with gaps in both individual and institutional capacity [159]. In Pakistan, a study on the relationships between decision space, institutional capacities, and accountability of district managers found a positive relationship between decision space, accountability and institutional capacity [160].

In Africa, two Tanzanian studies on organisational capacities and decision space found that district health managers had authority in many health system functional areas, except for financial resources, and that the narrow decision space over finance coupled with critical shortage of skilled health providers negatively affected the district performance [163, 164]. Similar findings of narrow decision space on human resource management functions was found in a Ghanaian study investigating the extent to which decentralisation transferred management autonomy and discretion to subnational units [165]. In contrast, in Uganda a study on decision space for health workforce management in decentralised settings found that the District Health Management Team made decisions beyond its conferred authority [161].

In South Africa, the decision space of sub-national government is complicated due to the concurrent responsibilities of the national and provincial spheres, with narrow decision space over finance and human resources at the district level [36]. District managers have limited influence over the allocated budget, and no control over human resource planning and appointments [166]. Kawonga et al (2013), examined the decision space of general managers over HIV programme monitoring and evaluation functions and found that knowledge of HIV monitoring and evaluation was a predictor of their decision space [167]. Another South African study found that decision

space was influenced by the availability of resources to exercise the given authority, and that the management capacities as well as accountability mechanisms positively influenced the exercise of decision space [168].

Most of the studies on decision space have focused on the functions of district and sub-district managers. However, there is a dearth of studies that have examined the decision space of front-line managers with regard to the implementation of a PHC reform.

2.6 Summary of literature review

Table 3 summarises the identified gaps in the literature, and the contribution of the PhD in addressing some of the gaps.

Table 3 A summary of the literature review

PhD study objectives	What is known?	Gap	Scholarly contribution
Explore the specific, structural and wider policy context of the implementation of the ICRM programme	Policy context shapes the design, implementation and outcomes of health sector reforms. Contextual factors, range from political commitment, through to the behaviours of health policy actors. Policy context of health sector reforms is widely researched, but the ICRM programme is a specific	Dearth of empirical studies on the context of the implementation of the ICRM programme.	One of the first studies to explore the policy context of the implementation of the ICRM programme. One of the first studies to apply the Contextual Interaction Theory in a health policy study.

	UHC reform in South Africa.		
Examine the roles and responsibilities of different levels of government health departments in the implementation of the ICRM programme	Lack of role clarity, confusion, and unclear expectations of policy actors influence the implementation of health sector reforms. There are many studies on roles and responsibilities, but primarily from public administration, or political science perspectives.	Lack of studies on roles and responsibilities of government health departments in the implementation of the ICRM programme.	New knowledge on the roles and responsibilities of government health departments in the implementation of the ICRM programme.
Determine the cohesiveness of inter-governmental relationships (the network) in the ICRM programme implementation	IGR studies have included analyses of the different dimensions of IGR, institutions and processes, and the extent of formality of IGR IGR studies are mostly in public administration, law, political studies, and few in health sector reforms. Dysfunctional IGR has negative consequences for policy implementation.	Dearth of studies that used social network methodology to examine IGR, or that examine the ICRM programme, as a recent PHC reform in South Africa.	One of the first studies to examine the IGR in the implementation of the ICRM programme. New knowledge on the cohesion of the IGR network in the ICRM programme implementation using SNA methodology.

Determine the perceptions of PHC facility managers on involvement participation and decision space in implementation of the ICRM programme	Global recognition of the importance of the involvement of policy implementers in the conceptualisation and/or design of policies, to ensure successful policy implementation, yet many studies have demonstrated the lack of, or insufficient involvement of policy implementers in policy development leading to negative consequences Decision space analysis has been used to examine the extent of involvement and participation of district managers in decentralisation. Majority of studies on decision space focuses on the decision space of district managers regarding planning, finance, service organisation, governance and human resource management.	Lack of studies on the extent of PHC facility managers' participation in the ICRM programme conceptualisation and implementation. Dearth of studies that have examined the decision space of front-line managers with regard to the implementation of a PHC reform. Little focus on frontline managers functional areas in policy implementation.	New knowledge about the extent of participation of the PHC facility managers in the ICRM programme. One of the first studies to apply Bossert's decision space framework at PHC facility managers' level. New knowledge on PHC facility managers' decision space in the ICRM programme implementation.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter presents the research methodology. Section 3.2 presents the conceptual framework that guided the PhD study, section 3.3 describes the study setting, and section 3.4 outlines the steps taken to ensure an ethical approach to the research. Section 3.5 provides an overview of the overall PhD study components and methods. Sections 3.6 to 3.8 summarise the methodology of each study component. Section 3.9 explains how the individual components were integrated to form the overall PhD study. Section 3.10 and 3.11 discusses potential bias, limitations and steps taken to prevent bias and overcome limitations.

3.2 Conceptual framework

The conceptual framework for this PhD study (Figure 2) draws on Bressers' Contextual Interaction Theory [73], Provan and Milward's theory of inter-organisational network effectiveness [169], and Bossert's Decision Space framework [60]

3.2.1 Brief overview of theory or framework

Bressers' Contextual Interaction Theory

Bressers' Contextual Interaction Theory is a policy implementation theory, widely used in public policy and administration [73, 170-172]. The theory takes account of both the context of policy implementation and the interactions of various policy actors [73]. Bressers' theory posits that implementation occurs within a *specific, structural* and *wider* context [73], and that the context influences the actors' characteristics of motivation, cognition (*knowledge, information*) and power, and vice versa.

The specific context refers to previous policy decisions and specific circumstances such as geographical influence on policy implementation [73]. In this study, the specific context enabled an analysis of the policy coherence between the ICRM programme and the NCS. The structural context takes account of government levels, actors' responsibilities, resource availability, implemented strategies and challenges experienced [73]. In the PhD study, structural context

enabled an examination of the roles and responsibilities of different government health departments in the ICRM programme, their relationships, resources and challenges experienced in implementing the ICRM programme. Wider context refers to cultural, political , technological, economic and other problems that influence the actors' interaction [73].

Although the theory makes a distinction between the notion of wider, structural and specific contexts, there is a blurring of these concepts in practice [173]. This is a potential weakness. In addition, the theory has not been applied to an African context and/or in the health sector. Despite these potential weaknesses. Bressers' theory is relevant for use in this PhD study because it enabled the identification of contextual factors in the ICRM programme, and an analysis of the influence of context on the health policy actors' motivation, cognition (knowledge, information) and power, thus answering the first two study objectives.

Provan & Milward's theory

Provan and Milward's theory is a prominent network theory with a focus on examining relationships, interactions, and networking between organisations that have formalised agreements to interact for the purpose of achieving a mutual goal [169]. The theory posits that a cohesive network structure characterised by high density, combined with a well-resourced context, will positively influence network effectiveness. Network effectiveness is defined as "the attainment of positive network level outcomes that normally could not be achieved by an individual organisational participant acting independently"[169]:230. The effectiveness is viewed at network level not at the organisational or individual level [169].

The potential weakness of this theory is that it does not stipulate the extent or degree of cohesion required to yield network level effectiveness. The theory has not been tested in the context of intergovernmental relations (IGR). However, it provided a lens to examine IGR, and facilitated the assessment of the network cohesion, of the IGR in the ICRM programme implementation.

Bossert's framework of mapping decision space

Bossert developed the framework of decision space originally, to analyse decentralisation, specifically the degree of authority given by those at central levels to peripheral levels of government, and how much of the given authority is exercised by the policy actors at the peripheral level to enable them to fulfil their roles [60]. Bossert's framework has been widely used in decentralisation studies [158, 160, 174]. In its original form, it has a vertical axis that lists the functions of finance, service organisation, human resources, access rules and governance rules [60]. Each of these functions is measured against a horizontal axis of narrow, moderate and wide decision space [60]. The weakness of Bossert's framework is that it has a pre-set criteria of items (in its vertical axis) typically the functions of actors at middle and senior management levels. The framework was not designed to measure the decision space of frontline managers, who perform different functions [60]. Another limitation is that the scale of wide, moderate or narrow might be open to different interpretations.

In this PhD study, the framework has been adapted to measure the decision space of frontline PHC facility managers, together with measuring their involvement and participation in the conceptualisation and design of the ICRM programme. Bossert's framework facilitated the achievement of PhD objective 4.

3.2.2 Description of my conceptual framework

Figure 2 shows the conceptual framework for my PhD. The left side of my conceptual framework shows each of the four study objectives to examine the implementation of the ICRM programme in the two provinces of Gauteng and Mpumalanga. One or more of the selected theories informed each of the study objectives.

In my conceptual framework, I postulated that the implementation of the ICRM programme in the two provinces would be influenced by the specific, structural and wider context, as well as the roles and responsibilities of the various policy actors. The ICRM programme implementation would also be influenced by the cohesiveness of the inter-governmental relationships (network structure) and context. Lastly, the involvement and participation of frontline PHC facility managers, and their decision space would also influence implementation of the ICRM programme. Although drawn

separately, there are multiple relationships among the context, and health policy actors, all which influence the PhD outcome, which is to generate new knowledge on the implementation of the ICRM programme in the two selected provinces.

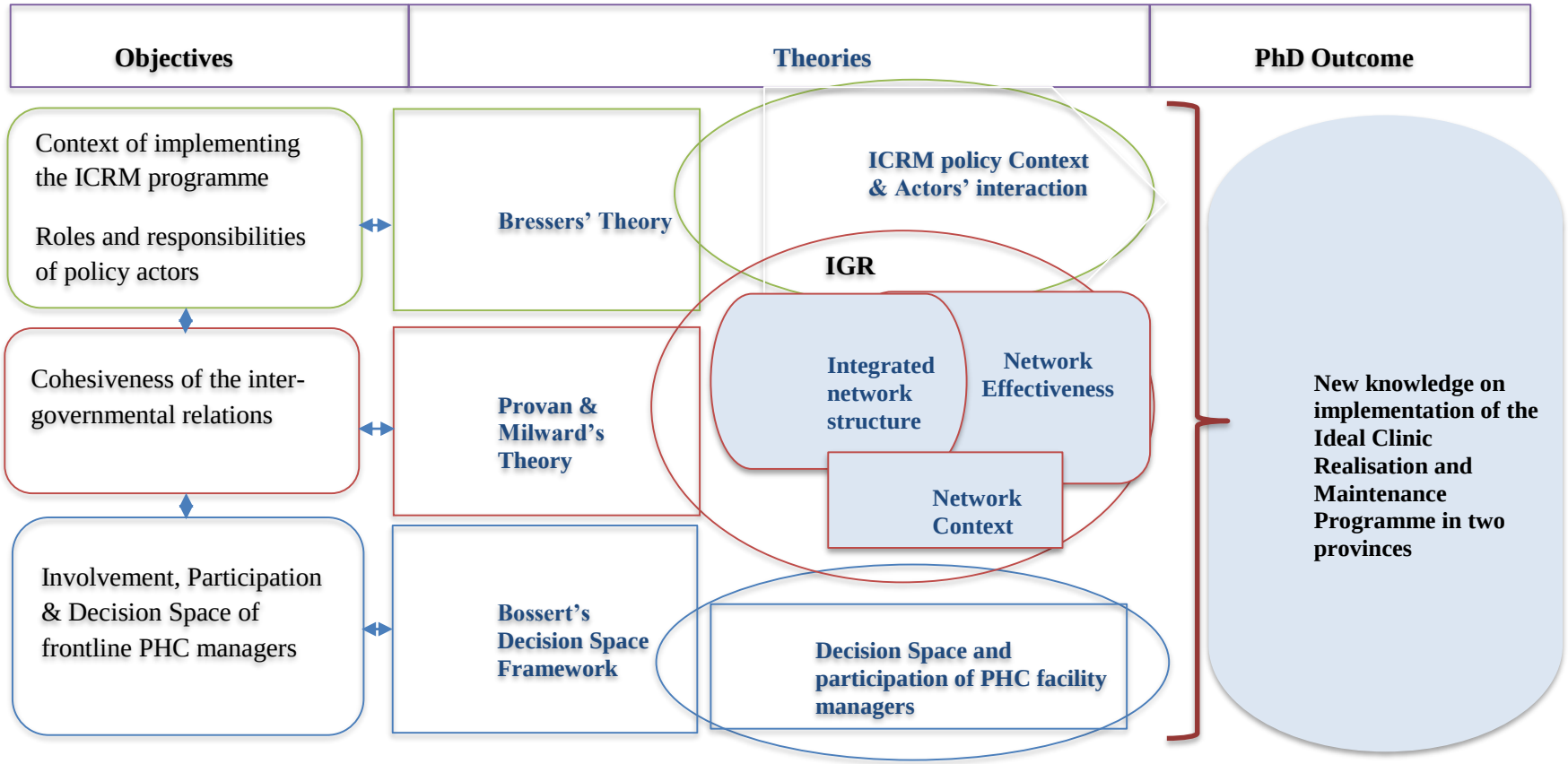


Figure 2 PhD Conceptual framework

Adapted from: ***Bressers'*** Contextual Interaction Theory [73] and ***Provan & Milward*** 's theory of inter-organisational network effectiveness [169] and Bossert's Framework of Decision Space [60].

3.3 Study setting

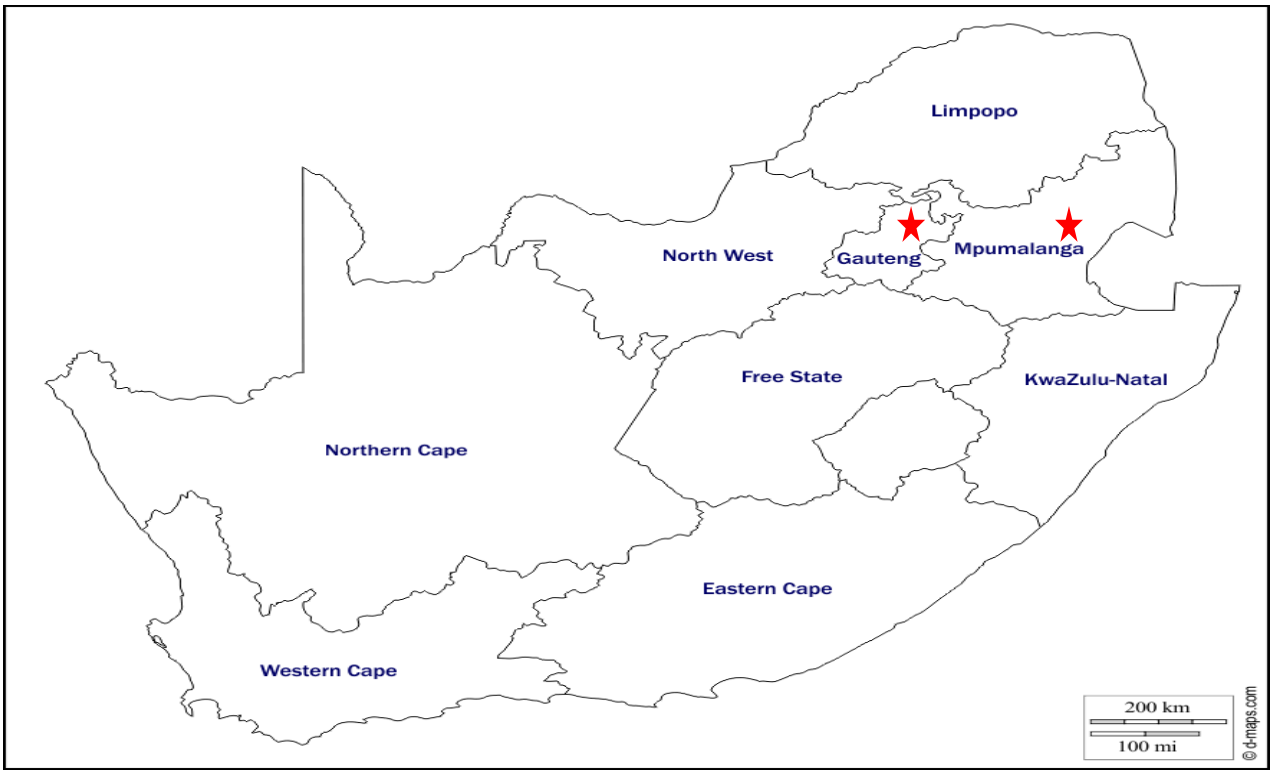


Figure 3 Map of South African provinces

Source: [175]

The study was conducted in the two NHI districts of Gauteng (GP) and Mpumalanga (MP) provinces of South Africa (Figure 3). In GP, the NHI pilot district was the City of Tshwane, and in MP, the NHI pilot district was Gert Sibande.

GP is an urban province, contributing around 34 % of the country's gross domestic product. In 2018, GP had an estimated population of around 13.4 million [176]. The City of Tshwane, located in the north of the province, is one of the five health districts in GP, with an estimated population of around 3.3 million [176]. The City of Tshwane is a large metropolitan municipality that owns 24 of the 73 PHC facilities in the district, and Pretoria, the capital city of South Africa is located in this district.

MP is a predominantly rural province with more than half of its 4.3 million residents residing in deep rural areas [177]. MP is characterised by vast farming areas with hubs of economic activity

such as agricultural, mining and power stations. Gert Sibande district is one of the three districts of MP, 61% rural, with an estimated 2018 population of around 1.1 million [177]. Unlike in GP, all PHC facilities in Gert Sibande district are managed by the provincial government [178].

These study districts were selected purposefully because they were NHI pilot sites, geographical proximity to the researcher and for budgetary and logistical considerations.

3.4 Ethical considerations

In line with the Singapore Declaration [179], the research study complied with the principles of honesty, accountability, professional courtesy, and fairness in working with others, and ensuring good stewardship of research. Table 4 highlights the steps taken to ensure that the PhD study was conducted according to the highest ethical standards. The Human Research Ethics Committee (Medical) of the University of the Witwatersrand, Johannesburg provided ethical approval (Appendix 1). All relevant health care authorities in Gauteng and Mpumalanga provinces also gave permission to conduct the study (Appendices 2-3). All participants were given an information sheet about the study and the voluntary nature of the study was explained to them (Appendix 4-5). Each participant was requested to give consent (Appendices 6-7) for participation and for digital recording of the interviews. There were no personal identifiers in any of the data collection tools. In order to ensure confidentiality, all data are kept on a password-protected computer and codes were used to reference the narratives of participants.

Table 4 Summary of steps taken to ensure an ethical approach to research

Summary of steps taken to ensure an ethical approach to research	
Ethical principle	**Actions by the Researcher**
Approval	• Obtained from the HREC of the University of the Witwatersrand
Permission	• All health authorities in Gauteng and Mpumalanga provinces
Consent	• Obtained from all participants, after detailed information sheet
Confidentiality	• No personal used identifiers on any data collection form • Codes to reference all the narratives • Data stored on a password-protected computer, • Only the principal researcher has access to password
Non-Maleficence	• Detailed preparation prior to data collection • Voluntary participation • Researcher contact details provided
Research integrity	• Detailed protocol and a fieldwork manual • Researcher ensured fidelity to study protocol and quality assurance
Beneficence	• Participants were aware of no direct benefits for study participation.

3.5 Overview of PhD methods

This PhD study used a mixed method approach, combining a survey and in-depth interviews. The latter collected both qualitative data and the data for the social network analysis. The PhD study consisted of three interrelated components of qualitative, quantitative and social network studies covering the four research objectives. These objectives and components were aligned to the

selected theories shown in the PhD conceptual framework. Each theory informed the data analysis and interpretation of results (Table 5).

Drawing from Bressers' Contextual Interaction Theory, Study component 1 was a qualitative study that used in-depth semi-structured interviews to explore the context of the ICRM programme, the roles and responsibilities of various policy actors, and the interactions between the context, and the policy actors. Provan and Milward's theory's informed Study component 2 that examined the inter-governmental relationships in the implementation of the ICRM programme. Study component 2 used social network analysis. Study component 3 was a cross sectional survey among PHC facility managers in the two NHI districts in the two selected province. The study used Bossert's framework of decision space to determine PHC facility managers' participation in the conceptualisation and implementation of the ICRM programme and their decision space on the vital components of the ICRM programme. Table 5 depicts the alignment of study components, theories, and methods.

Table 5 Overview of PhD research components

Overview of PhD research components				
Study components	**Theory**	**Design**	**Method**	**Outputs**
Component 1: Context Roles and Responsibilities ***Objectives 1& 2***	Bressers' Contextual Interaction Theory of policy implementation	Qualitative	Semi-structured interviews: *Qualitative data* Thematic analysis	Policy context, coherence and disjuncture in the implementation of the Ideal Clinic Realisation and Maintenance programme in Gauteng and Mpumalanga Provinces of South Africa *Health Research Policy and Systems* (Published) **Chapter 4**
Component 2: Inter-governmental relationships ***Objective 3***	Provan & Millward Theory of inter-organisational network effectiveness	Social Network Analysis	Semi-structured interviews: *Social network data* Social network analysis	Using social network analysis to examine inter-governmental relations in the implementation of the Ideal Clinic Realisation and Maintenance programme in Gauteng and Mpumalanga provinces of South Africa *PLOS One* (planned submission) **Chapter 5**
Component 3: Decision Space and Participation ***Objective 4***	Bossert's framework of Decision Space	Quantitative	Survey: *Quantitative data* STATA 15	Decision space and participation of primary health care facility managers in the Ideal Clinic Realisation and Maintenance programme in two South African Provinces *Health Policy and Planning* (Published) **Chapter 6**

3.6 Study component 1: Qualitative study

This study component sought to explore the specific, structural and wider policy context of the implementation of the ICRM programme and to explore the roles and responsibilities of different levels of government health departments in the implementation of the ICRM programme. The study draws on Bressers' Contextual Interaction Theory.

3.6.1 Population of interest

The population of interest were all the policy actors at national, provincial, and local government spheres in Gert Sibande and Tshwane Districts of Mpumalanga and Gauteng Provinces respectively.

3.6.2 Participant selection

Key informants were selected purposively. The selection criteria were: a policy actor involved in conceptualising, or leading the implementation of the ICRM programme at national, provincial and district, and sub-district level, and representing national, provincial, or local government (Table 6)

Table 6 Description of the key informants

Description of the key informants					
Level of Government	**Responsible Department of Health (DoH)**	**Actor Position**	**Responsible Department of Health**	**Actor Position**	Total No.
National Government	**National DoH**	Executive Manager for PHC			
		Director District health system/ICRM Programme Co-ordinator			
		Ideal Clinic Coordinator			3
Office of Health Standards Compliance (OHSC)		Executive Manager: Compliance Inspection			1
	Gauteng Province		**Mpumalanga Province**		
Provincial Government	**Gauteng Province DoH**	• Chief Director: District Health System • Deputy Director ICRM Co-ordinator • Director PHC / Provincial ICRM Programme Co-ordinator	**Mpumalanga Province DoH**	• Acting director PHC/ ICRM Programme Co-ordinator • Deputy Director PHC/ ICRM Programme Champion	5
	Tshwane District	• District Manager • Deputy Director Quality assurance/ District Ideal Clinic Co-ordinator	**Gert Sibande District**	• District Manager • Deputy Director NHI • Deputy Director Quality Assurance • Deputy Director PHC x 4	9
	Tshwane Sub-districts	• Area Manager PHC x 6	**Gert Sibande Sub-Districts**	• Assistant Director PHC x 7	13
Local Government	**City of Tshwane Municipality**	• Executive Director: Health services • Deputy Director: Quality Assurance	**Local Government**	Not applicable for MP province, as no local government service provision	6
	Tshwane Sub-districts	• Deputy Director: PHC x 4			
Total					**37**

3.6.3 Data collection tool

The research questions and the conceptual framework informed the design of the interview schedule in English. The schedule consisted of semi-structured questions that probed the rationale for the ICRM programme, philosophy and values, the policy actors' role in the implementation, progress and challenges, inter-governmental relationships, access to resources and decision-making. A team of health systems and policy researchers reviewed the interview schedule for content validity and their comments were incorporated prior to piloting. The interview schedule was piloted with two key informants from a health district not included in the study. The pilot suggested rearranging a few questions to enhance the flow of interview, rather than any substantive changes. The results of the pilot were excluded from the PhD study.

3.6.4 Data collection

After obtaining ethics approval (Appendix 1) and permissions from Gauteng and Mpumalanga provincial department of health and City of Tshwane Municipality (Appendices 2-3); the principal researcher contacted the key informants via email. Each key informant was followed up telephonically. The telephonic conversation served to clarify the information sheet (Appendix 4-5) which was sent via email, and the voluntary nature of the study. The principal researcher invited the identified key informants to participate in the study. Following verbal consent (Appendices 6 and 7), the researcher set appointments for the interviews on a date, time and place preferred by each key informant.

The interview sessions covered questions for research component 1 and 2. Further details on methods are provided in Chapters 4 and 5. Figure 4 depicts the data collection and management process.

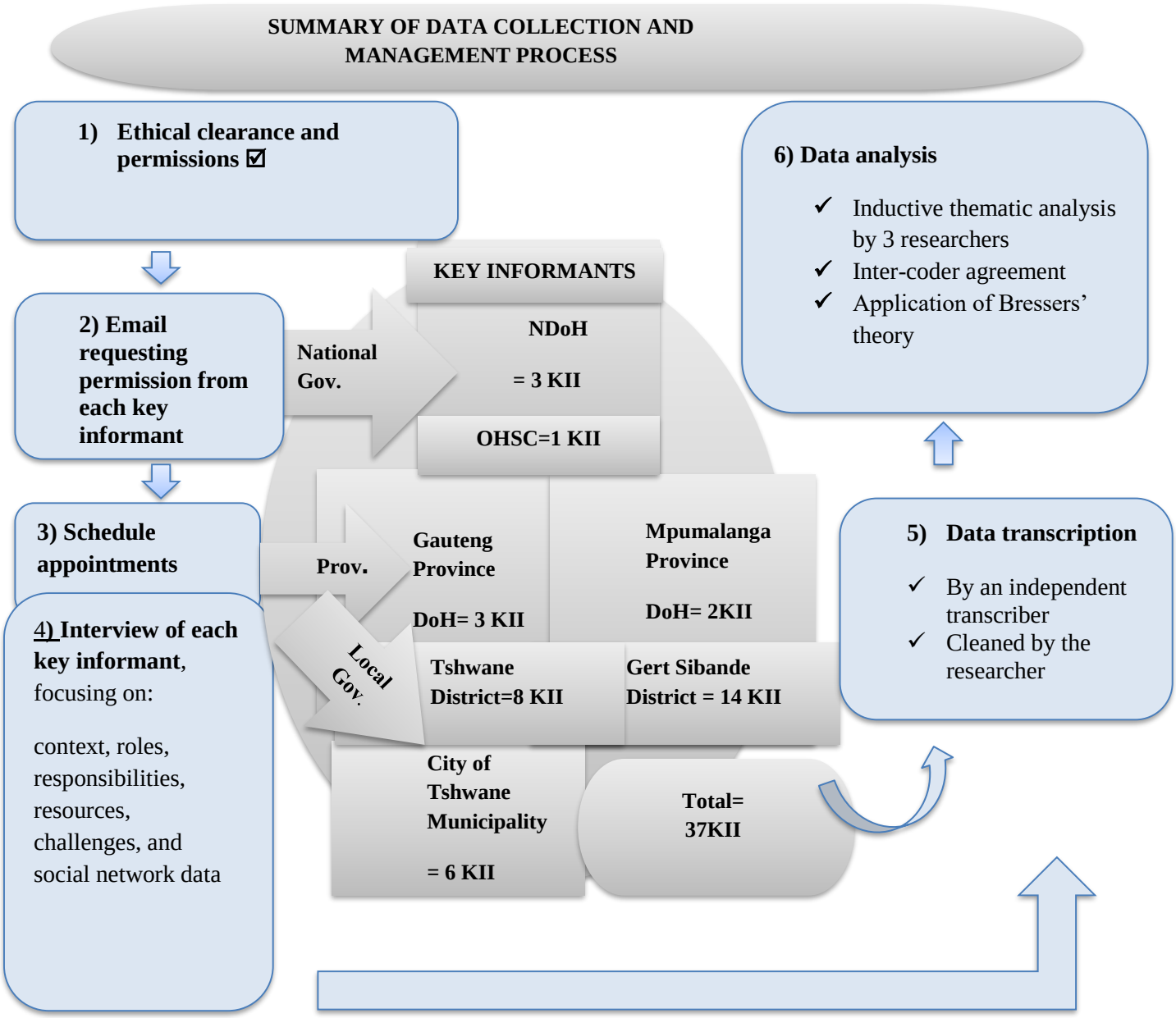


Figure 4 Interview data collection and management

3.6.5 Data analysis

All interviews were transcribed verbatim by an independent company with expertise in qualitative data transcription. Following transcription, the principal researcher (SM) cleaned data by reading each transcript while listening to the original recording, correcting the text errors, replaying the audio records and making final corrections. This process provided for in-depth engagement with the data. The interviews were analysed using inductive thematic analysis. A team of three researchers analysed three distinct transcripts independently [180]. Table 7 summarises the steps taken to analyse the interview data, Chapter 4 contains further details of the data analysis process.

3.6.6 Trustworthiness

Lincoln and Guba's principles of trustworthiness [181] were applied in this study as follows: *Credibility* was ensured, firstly by using an interview schedule designed based on the research objectives and research questions. Secondly, it was ensured by prolonged engagement with the data during field work and during data cleaning and analysis. Thirdly, independent data coding was done by three researchers who reached inter-coder agreement. A thick description of the research methodology, research context, and of the sample ensured *transferability*. *Confirmability* was assured by audio-recording of interviews and keeping all records for any audit trail.

Table 7 Steps followed in interview data analysis

Steps followed to analyse the interview data	
1. Coding	• Three researchers independently read transcripts • Each researcher coded data inductively
2. Coding meeting	• Each researcher reported codes developed independently • Discussion of, and agreement on codes
3. Examining codes	• The principal researcher analysed the reported codes for : o Recurring patterns o Contradictions o Similarities • Developed themes • Shared the themes with other two researchers
4. Agreement of themes	• Researchers agreed on themes
5. Application of Bressers' theory	• The principal researcher examined each theme against the theoretical concepts of Bressers' theory • Themes were examined for reflection of specific, structural, and wider context • All contextual issues arising were examined for their impact on motivation, cognition and power
6. Application of the process to the rest of the data	• Principal researcher applied the themes to the rest of the interview

3.7 Study component 2: Social Network Analysis

This study component sought to examine the cohesiveness of the inter-governmental relationships across the three spheres of government. Drawing on the theory of Provan and Millward on inter-organisational effectiveness, the study used a social network analysis methodology.

3.7.1 Participant selection

Participants were selected based on a pre-defined set of criteria (network boundary) [68], with additional snowball sampling. In this PhD study, a network boundary was defined as consisting of health policy actors in leadership positions in national, provincial and local government and involved in the conceptualisation and/or the implementation of the ICRM programme. Since the key informants for study component 1 met these criteria, the starting point was the list of all the key informants identified for study component 1 [68]. Using a pre-set rule for social network analysis, snowball sampling [69] was applied when an actor who was not in the initial list, was mentioned by at least two of the selected key informants during data collection. In this instance, the mentioned actor was included for follow-up, as it suggested that the actor was involved in the ICRM programme implementation. In GP, 22 and in MP 26 actors were included in the network (n=48).

3.7.2 Data collection instrument

There were two documents (Appendices 8-9) utilised to collect data i.e., the interview schedule, and the network matrix (a spreadsheet for plotting the presence or absence of relationships) [68].

Interview schedule: Since the study was part of the larger doctoral study; the six questions relating to social network data formed the last section of the main interview and the interview session lasted for around 30 minutes. The six questions asked participants about their communication for the purpose of consultation, support and information sharing.

Matrix: The matrix was developed in a word document, a table with six columns as follows: a column for seeking advice, providing advice, seeking support, providing support, giving information and being given information. The matrix had number of rows providing a space to list all actors a person has a tie with in relation to the relationship in each column. A team of researchers reviewed the examples of matrices, network roster and interview guide for content validity, this was followed by piloting of the tool with two key informants from a different health district for clarity of questions and time taken to complete the interview. There were no revisions required.

3.7.3 Data collection

The data collection of the section on social network data was part of the interviews for the qualitative study component, and commenced in the last 30 minutes of the interview. At commencement of the interview, each key informant was informed that there were two components to the interview: one component focusing on the context and the roles and responsibilities and the other focusing on interactions in the ICRM programme. On completion of the initial component, the researcher introduced the key informant to the second component of the interview, namely the social network data. Figure 5 provides a step-by-step summary of data collection process.

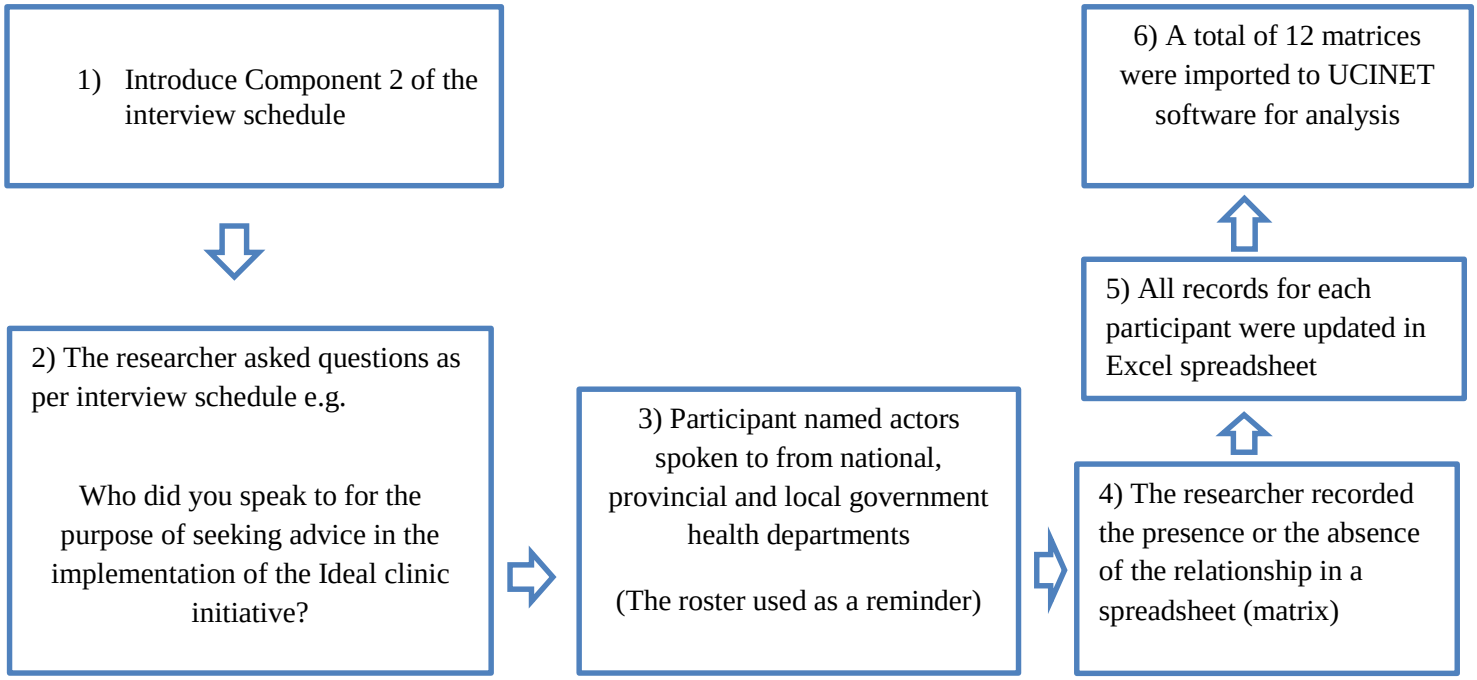


Figure 5 SNA data collection and management

Following the introduction, each key informant was presented with a list of network roster (Appendix 10), and was orientated on the list of actors who were on the roster. The researcher asked each question to the key informant, and captured the responses into a matrix. The presence of a relationship (also called a tie) was indicated by a '1' and its absence was indicated by a zero '0'. Further details are provided in Chapter 5.

3.7.4 Data management and analysis

The principal researcher used Microsoft Excel to capture 12 spreadsheets (matrices) of SNA data, six for each province. Following data capturing, the principal researcher conducted a data audit, using interview transcripts and original matrices to validate all the relationships (ties). The principal researcher double checked the data for errors and ensured that the presence (=1) or absence (=0) of ties was noted in all the matrices. All cleaned data were imported to UCINET version 6.619 for analysis [182].

The principal researcher analysed the data (all 12 matrices for GP and MP) for cohesion of the network structure, which in SNA it is determined by network density and network centralisation. Density indicates whether each actor is connected to all possible ties in a network and the centralisation measures the extent to which the network ties are focused on a few people in the network [70]. Further details on these network measurements are provided in Chapter 5.

3.7.5 Validity and reliability

Setting the boundary of network ensured that data was collected from the correct participant. The use of social network roster supported the actors with recall of their possible interactions, and ensured the accuracy of the data collected.

3.8 Study component 3: Cross-sectional survey

This was a cross sectional survey among PHC facility managers in Gert Sibande (MP) and the City of Tshwane (GP).

3.8.1 Study population and sampling

The population of interest was all the PHC facility managers in charge of day clinics, open for eight or 12 hours every day in Gert Sibande and City of Tshwane districts. In Gert Sibande district there were 63 day clinics and in the City of Tshwane there were 64 day clinics, resulting in a total of 127 PHC facility managers who were invited to participate in the study.

3.8.2 Data collection instrument

The researcher developed a self-administered questionnaire (Appendix 11) in line with the research objective, namely to determine the PHC facility managers' participation in the conceptualisation and implementation phases of the ICRM programme, as well as their decision space on the 10 vital elements of the ICRM programme.

The questionnaire consisted of four sections: background and demographic characteristics, participation, decision space and an open-ended question on the ICRM programme. The section on background and demographic characteristics had 11 questions on age, gender, qualifications, years of experience and years of involvement in training. The section on participation in the conceptualisation and implementation of the ICRM programme had nine questions about participation in planning, leadership, negotiation for resources, and sharing of knowledge about the ICRM programme. The nine questions on PHC managers' participation were measured against a seven-point Likert scale, where 1 indicated strongly disagree and 7 indicated strongly agree. The section on decision space in the ideal clinic implementation had 10 questions adapted from the 10 vital elements of the ICRM programme that were under the control of the PHC facility managers. These ten statements were measured using a three-point scale based on the horizontal axis of Bossert's framework for mapping decision space, namely 1 (narrow); 2 (moderate) and 3 (wide) [60]. The final section consisted of an optional open-ended question to allow PHC facility managers to comment on any aspect related to their participation or decision space in the ICRM programme.

Pilot testing of the questionnaire was done with three PHC facility managers from other district in Johannesburg and no adjustments were necessary. The pilot testing responses were excluded from the main study. The designed questionnaire was uploaded into REDCap (Research Electronic Data Capture) a secure, web-based application designed to support data capture for research studies [183] and hosted at the University of the Witwatersrand.

3.8.3 Data collection

Preparation for data collection of the survey study was as follows: the principal researcher recruited two fieldworkers with previous experience in research. The researcher also designed a field work manual (Appendix 12) and conducted a full day training on fieldwork and the training involved theoretical information about the study, planning and execution of fieldwork, data quality control, trouble shooting, compliance to ethical standards, and professional conduct. The theoretical lesson was followed by demonstrations of expected practice during data collection.

Following the theoretical lessons and practical demonstrations, fieldworkers participated in repetitive role-plays where the researcher evaluated their performance and provided coaching and feedback. In preparation for data collection, contact details for all the PHC facility managers were requested from the City of Tshwane and Gert Sibande district managers, after receiving the permission to conduct the study. The researcher contacted all the PHC facility managers via email and telephone calls to invite them to participate in the study voluntarily. The principal researcher scheduled an appointment for data collection with each of the PHC facility managers. Figure 6 summarises the steps taken to collect and manage survey data.

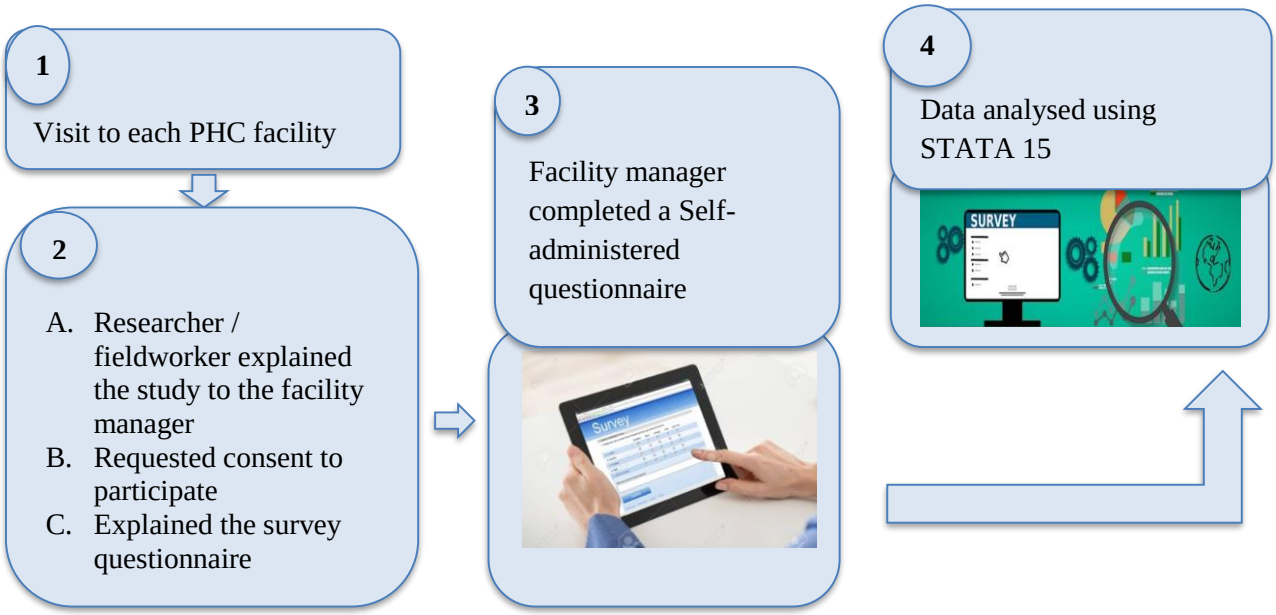


Figure 6 Survey data collection and management

Source for pictures: [184]

On the survey day, an introductory meeting was held with each of the PHC facility managers to explain the study and the voluntary nature of participation. Following informed consent, each facility manager completed the self-administered questionnaire (SAQ) on a tablet, with the researcher or a fieldworker assisting where necessary. The tablet allowed for text input by the facility manager or digital recording of additional comments, which were optional. The researcher provided overall leadership for the study, and was available for questions and/or problem solving of any fieldwork related challenge. A quality control meeting was held after the end of every day, to discuss data collection progress and to check the data collected.

3.8.4 Data management and analysis

Quantitative data

The researcher extracted the quantitative data from REDCap and imported the data into STATA® 15 for cleaning and analysis. The overall data analysis included, descriptive statistics computing means scores, comparison of means scores by demographic characteristics, and multiple regression analysis for determining the predictors of decision space and participation in the ICRM programme implementation. The detailed description of the analysis is provided in Chapter 6.

Qualitative data

Audio-recorded responses to the open-ended question were transcribed verbatim, and typed responses were exported from the REDCap file into a word document. Data were analysed using thematic analysis. Two other researchers assisted with data analysis. Inductive thematic analysis was followed and a meeting was held to discuss themes until agreement was reached.

3.8.5 Reliability and validity

Prior to data collection, the questionnaire was reviewed for face validity [185] by a team of health system and policy researchers. The questionnaire was also piloted and pilot testing allowed for testing questions if they were understood by the participants. The Cronbach's alphas were calculated to establish internal consistency of all the items in each subscale of the questionnaire. Participation and decision space categories had Cronbach's alpha of 0.77 and 0.81 respectively,

indicating good internal consistency [186]. Lincoln and Guba's criteria of trustworthiness were followed to examine rigour in the analysis of qualitative comments in this study [181].

3.9 Integration of key findings

Drawing from the PhD conceptual framework, the findings from all three studies were synthesised and examined for convergence, divergence, and implications for policy implementation and against the existing literature. Three triangulation strategies methodological, data, and theoretical triangulation were used. Methodological triangulation combined a survey, interviews and social network analysis approach. Data triangulation combined quantitative data, social network data and qualitative data. Theoretical triangulation combined the two theories of Bressers [73] and Provan & Milward [169] as well as Bossert's framework of decision space [60].

3.10 Potential bias, study limitations and mitigation

This section outlines potential sources of bias, as well as study limitations and steps taken to address bias or these limitations. A bias is defined as any form of systematic error that can distort the measurement process [187]: 2320. Limitations of the study are design or methodological issues that could constrain the interpretation or generalisability of the study findings [188]. In this study, the potential sources of bias were: social desirability bias, non-response bias, recall bias and analysis bias, and limitations were the cross-sectional nature of the design and the study setting.

3.10.1 Potential sources of bias

Social desirability bias

Social desirability bias arises when survey respondents answer questions in a manner that will be viewed favourably by others [189]. In this study, the PHC facility managers or health policy actors could have reported favourably on the ICRM programme or underreported problems or challenges experienced. The data collection tools were designed to phrase questions in a manner that reduced the potential of social desirability bias. The researcher ensured adequate preparation for data collection, privacy and established rapport with the key informants, and reminded them of confidentiality and anonymity in the study. The PHC facility managers' survey was self-

administered, therefore reducing the extent of social desirability bias that could be introduced by responding to the researcher.

Social desirability bias was also minimised by the triangulation of methods and analysis.

Non-response bias

Non-response bias arises when members of the study population refuse participation in the study [190]. In the survey with PHC facility members, a 100% response rate was obtained. This was because of careful study planning and participation, detailed information sheets, arranging the survey at a time suitable for the facility managers, and ensuring that all their questions were addressed.

Recall bias

Recall bias arises when participants cannot remember details or facts related to the study [190]. In this study, the social network study component used a network roster of all possible actors, which reduced the potential recall bias [69]. In addition, the contemporary nature of the ICRM programme, reduced the potential recall bias during data collection.

Analysis bias

Analysis bias is the bias introduced intentionally or unintentionally by the researchers' analysis and interpretation of study findings [191]. The analysis of the survey data was done with the support of an experienced biostatistician, and the input of the PhD supervisor. Also, the survey component had an open ended question which provided for the triangulation of quantitative findings and qualitative findings and minimised both social-desirability and analysis biases.

Three independent researchers analysed the same three interviews, until reaching agreement on themes, thereby eliminating possible analysis bias. The analysis for the SNA data was also double checked with another researcher with an experience in SNA methodology for correctness of analytical procedures followed.

3.10.2 Limitations

Cross-sectional studies

Cross-sectional studies provide a snapshot of a point in time of the views or perceptions of the participants [192]. Their views may have changed to positive or negative over time after conducting the study. However, since the data were collected while the ICRM programme implementation was ongoing, the views expressed are valid since they are a reflection of the participants' experiences in the implementation process. Furthermore, the combination of methods ensured a diverse and rich views on implementation.

Study setting

The study setting was only in two of the nine South African provinces, and therefore the findings cannot be generalised to the whole country. Also the study focused only on the NHI pilot districts, which might be different to the non-NHI districts, thereby limiting the generalisability to the non-NHI pilot sites. Nonetheless, the study provides important insights into the implementation of the ICRM programme. The various tools could be used in other studies on the ICRM programme implementation.

The study has numerous strengths. This is one of the first empirical studies to analyse the implementation of the ICRM programme in South Africa, which is a relatively recent health sector reform. The scholarly contribution of the PhD is both in the generation of new knowledge, and methodological innovation. These aspects are elaborated on in Chapter 7 of the thesis.

CHAPTER 4: POLICY CONTEXT OF THE IMPLEMENTATION OF THE IDEAL CLINIC REALISATION AND MAINTENANCE PROGRAMME [a]

4.1 Introduction and Background

Universal health coverage (UHC) is a key target of the Sustainable Development Goals (SDGs) [1, 193]. During 2018, three global health reports recommended that quality improvements are essential for the realisation of the benefits of UHC [24-26]. All reports underscored the vulnerability of people in low-and middle-income countries (LMICs) to poor quality care. The authors called on governments in LMICs to prioritise health system-wide quality of care improvements [24-26].

South Africa is a constitutional democracy and health services are a concurrent function of both national and provincial governments [32]. The national government is responsible for policy development, resource allocation and monitoring and evaluation, whereas the provincial government is the main implementing agency [10]. The local government is responsible for municipal health services, defined in the National Health Act as environmental health services [10]. These constitutional responsibilities influence both policy context and implementation. The National Health Insurance (NHI) system is a major health financing reform towards UHC, while concomitantly addressing the inequities in the two-tiered health care system [12]. The latter consists of a resource-constrained public health sector that provides care to around 83 percent of the South African population and a private health sector that caters for a minority (around 17%) of the population with private health insurance [12]. The NHI also aims to address quality, access, rising health care costs, efficiency and effectiveness through a series of complementary health sector reforms [49]. One of these reforms was the establishment of the Office of Health Standards Compliance (OHSC) in 2013, through an amendment of the National Health Act [49]. The OHSC is a legal entity that aims to protect and promote the safety of users of health services by ensuring

[a] This chapter is a published article in *Health Research Policy and Systems* in June 2020. The paper is entitled: Policy context, coherence and disjuncture in the Ideal Clinic and Realisation Maintenance Programme in the Gauteng and Mpumalanga provinces of South Africa. Permission for the inclusion of the paper in the thesis is listed in the appendices

that health establishments comply with the national [quality] core standards (NCS) and that complaints about healthcare are investigated and action taken where necessary [49].

The National Department of Health (NDoH) prioritised reforms at primary health care (PHC) level as part of the first phase of the NHI system implementation. The NDoH commenced an initiative, called the Ideal Clinic Realisation and Maintenance (ICRM) programme. The stated goal of the ICRM programme is to prepare all PHC facilities to meet the quality standards set by the OHSC [14]. An ideal clinic is defined as a clinic with "good infrastructure, adequate staff, adequate medicines and supplies, good administrative processes, with sufficient bulk supplies and it uses applicable clinical policies, protocols and guidelines, and it harnesses partner and stakeholder support" [65]:11. The implementation of the ICRM programme entails using the ICRM tools with indicators for quality, to assess, and grade facilities on a quarterly basis. Following each assessment, quality improvement plans are generated and provided to the PHC facility managers to guide their improvement actions [53]. The process is cyclical, beginning with self-assessments by PHC facility managers, followed by district assessments, and finally the inter-district assessments [53]. The desired outcome is the achievement of *ideal clinic status*, which implies that the PHC facility has met the required quality standards [14].

Hence, both the OHSC, which has legal enforcement powers, and the ICRM programme share a common goal of improving the quality of care provided and the experiences of health service users. However, both the ICRM programme and the NCS of the OHSC are implemented in the same PHC facilities. We could not find any empirical studies on the coherence, synergies, and/or differences between the two quality improvement initiatives.

This study draws on policy implementation theory to explore the policy context of the ICRM programme, given the existence of the OHSC as a legal entity. We refer to policy context as the background against which policy decisions are made, policy processes take place and stakeholders or actors engage with the policy [194]. Policy coherence is the the ability of similar policies to reinforce one another, create synergies towards one goal (in this case quality improvement) while providing actors with clear guidelines to address the policy problem [71]. Policy implementation

theories are suitable for use in this study because the implementation of the ICRM programme is a major PHC policy reform [171].

The ICRM programme commenced in 2013, and there is a dearth of empirical studies on its implementation. Although the NDoH reported that the ICRM programme has had a positive impact in improving waiting times and stock availability [195], progress is uneven with a reported 56% of clinics meeting the ideal clinic criteria [196]. Importantly, the NDoH has expressed concerns that around 25% of all the PHC clinics that were ICRM programme compliant, had lost their ideal clinic status in a four-year period [197].

Policy implementation studies are important, especially in LMICs, because lack of, or poor, implementation could result in financial waste, lack of service delivery, frustration and loss of confidence in government [198-200]. Research on policy implementation also plays an important role in highlighting progress and challenges of government policies, thereby enhancing public accountability [201]. The analysis of policy context explains the reasons for putting an item on the policy agenda [202], the feasibility, relevance and appropriateness of the policy [76]. Such analysis also provides insights into the potential implementation challenges [173] and the likely sustainability of the policy initiative [203].

Various researchers have examined the interplay between context and the role and characteristics of policy actors [97, 204, 205]. In Colombia, the implementation of HIV and AIDS policies were undermined by the lack of political will, the power of politicians at local government and corruption in resource distribution [206]. In Malawi a study on the implementation of environmental health policy in health care facilities was affected adversely by poor co-ordination and lack of information [207]. A study on the implementation of health care financing policies in South Africa and Zambia found that inadequate communication and lack of consultation with various policy actors resulted in unanticipated and unwanted impacts [205].

In South Africa, studies on the implementation of the water sector skills plan [208] and free basic energy policy [173] found that lack of consultation with stakeholders, insufficient information, capacity gaps and demotivated front-line staff contributed to the lack of prioritisation and slow progress during implementation. Other studies in the health sector examined the implementation of public sector financial incentives [209, 210], nursing education reforms [211, 212] and nurses'

participation in policy making [213]. These studies found that careful planning, coordination, proactive leadership, resources and skills facilitated policy implementation [209, 214]. In contrast, insufficient understanding of policy goals, poor communication, resource constraints and poor or non-existent monitoring and evaluation hampered implementation [212, 213].

The provision of high quality UHC in South Africa is a national priority [47], hence it is essential to ensure the successful implementation of quality of care reforms. The ICRM programme is designed to address the deficiencies in the quality of PHC services [12], and "to lay a strong foundation for the implementation of the NHI [53]: 1. A study to analyse its implementation could provide insights on contextual facilitators and/or constraints, in order to propose recommendation on how to improve future implementation of the ICRM programme implementation. The results could also inform or contribute lessons for the design and implementation of other NHI reforms in South Africa. Hence, the purpose of this study was four-fold. Firstly, we aimed to generate new knowledge on the policy context of the ICRM programme implementation, as it is a 2013 quality improvement initiative. Secondly, we wanted to examine the influence of context on the motivation, cognition and perceived power of the policy actors and on how those interactions influenced ICRM implementation. Thirdly, we wanted to explore whether there is policy coherence in the ICRM programme and the OHSC as both these reforms focus on health system-wide quality improvements. Lastly, we wanted to explore the perceptions of stakeholders at national, provincial and local government on these two quality improvement reforms. The research is part of a larger doctoral study on the implementation of the ICRM programme in two South African provinces.

4.2 Methods

4.2.1 Conceptual framework

Although there are numerous policy implementation theories and frameworks, we chose Bressers' theory [73] to examine the policy context of the ICRM programme implementation (Figure 7). The theory is suitable for this study because it allows us to examine both the context of policy implementation and the policy actors' motivation, cognition and power, and how these aspects influenced the implementation of the ICRM programme.

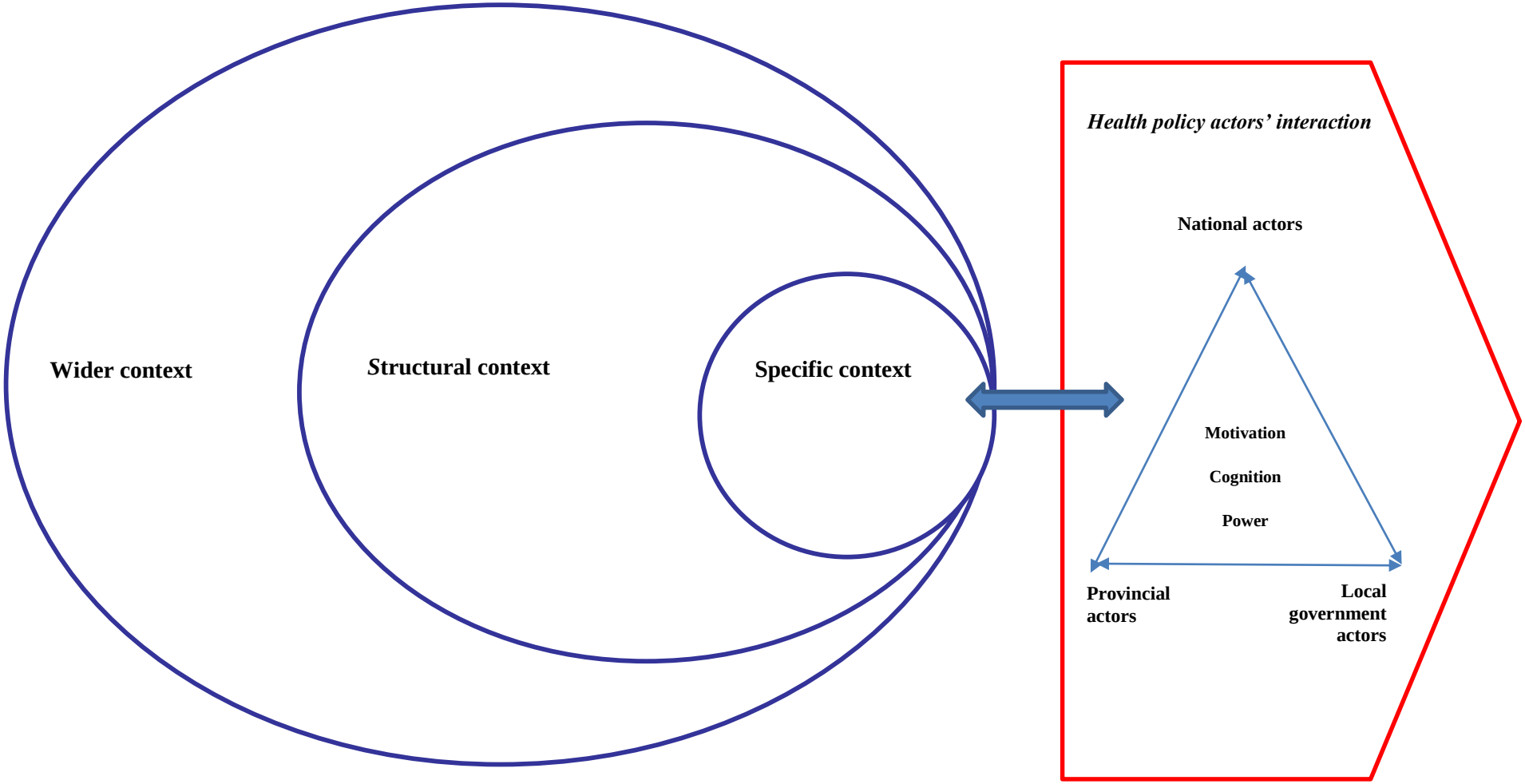


Figure 7 Conceptual framework adapted from Bressers' Contextual Interaction Theory

Source: Bressers, 2009-Adapted with permission from authors [73]

Bressers' categorise context into three layers of specific, structural and wider (Figure 7). The specific context refers to previous policy decisions made, and the influence of geographical location on the implemented policy [73]. In our study, previous policy decisions refer to the NCS of the OHSC, used initially to assess the quality standards of the PHC facilities prior to the introduction of the ICRM programme. Geographical location refers to a facility in rural or urban areas. Structural context refers to the actors' position in governance, interaction with other actors, actors' roles and responsibilities, and availability of resources [73]. In our study, structural context takes account of the three spheres of government involved in the ICRM implementation, the actors' roles and responsibilities, their interaction and the resource availability and challenges in implementing the ICRM programme. Wider context refers to the cultural, political and economic issues that influence the implementation [73], in our study the conceptualisation of the ICRM programme and its subsequent implementation.

The overall context influences the actors' characteristics of motivation, cognition, and power and these characteristics shape and re-shape the policy implementation process [73]. Cognition refers to the interpretation of the reality by policy actors, and their frames of reference [73]. In our study it refers to the views and experiences of actors regarding the ICRM implementation. Motivation refers to both intrinsic and extrinsic motivation of policy actors [73]. Power refers to the policy actors' access to resources and/ or possession of legal rights and capacity to influence decisions and implementation [73].

We used Bressers' theory [73] in the design of the data collection tools, such as in the phrasing of the questions in the interview schedule and to inform the inductive, thematic analysis of the in-depth interviews.

4.2.2 Study Setting

The various NHI projects, including the ICRM programme, were piloted in 11 of the 52 health districts (=municipalities) of South Africa [43]. Our study setting was in two of the NHI pilot

districts, the City of Tshwane district in Gauteng province (GP) and Gert Sibande district in Mpumalanga province (MP).

GP is an urban province, contributing to around one third of South Africa's gross domestic product [176]. GP is divided into five municipalities or health districts. The City of Tshwane district, which is a large metropolitan municipality, owns and manages 24 of the 74 PHC facilities [215]. The City of Tshwane metropolitan municipality has a service level agreement with the Gauteng Provincial Department of Health to provide health services on its behalf [216].

MP is a predominantly rural province and is divided into three municipalities or health districts. All the 77 PHC facilities are managed by the provincial government [178].

The criteria for the selection of these two provinces were: designation as an NHI pilot district, geographical proximity, budgetary and logistical considerations. In this study Gauteng and Mpumalanga Departments of Health represented the provincial sphere of government and the City of Tshwane municipality represented the local sphere of government.

4.2.3 Study design

This was a qualitative study that is nested in a larger mixed methods doctoral study. The latter uses policy implementation theory to analyse the implementation of the ICRM programme in Gauteng and Mpumalanga provinces.

4.2.4 Participant selection

We used purposive sampling to select key informants. Key informants had to meet one or both of the following criteria: leadership in the ICRM programme at national, provincial or local government or in the NHI pilot districts; and active involvement in the ICRM conceptualisation and/or implementation.

4.2.5 Data collection instrument

We developed an interview schedule in English, which is the official business language in South Africa. The interview schedule consisted of semi-structured questions, informed by Bressers' theory [73] and the research objectives. The semi-structured questions were categorised into six

sub-sections: ICRM policy context, rationale, and philosophy; inter-governmental relationships; perceptions of roles and responsibilities in ICRM implementation; resourcing of the ICRM programme; implementation progress; challenges and constraints.

A team of health systems researchers reviewed the interview schedule for content validity and clarity of questions. The principal researcher (PR), a PhD candidate in Public Health with training and experience in qualitative research piloted the interview schedule with two key informants from a different health district to determine clarity of questions and the time taken to complete the interview. Following feedback from the pilot interviews, the PR re-arranged two questions to enhance the flow of the interview, prior to the actual fieldwork, but no substantive changes were necessary.

4.2.6 Data collection

The PR contacted each participant via email to request voluntary participation in the study. Following informed consent, the PR arranged the interview date and time with each key informant.

The PR conducted all interviews in English. The interview began with an introduction to the study, and an explanation of the voluntary nature of participation. Following informed consent, the PR used the semi-structured interview schedule as a guide to explore each participant's perceptions of the ICRM programme implementation. Each interview lasted for about an hour, although the duration varied depending on the responses provided by the key informant.

Interviews were recorded digitally and labelled with a key informant code. Immediately after the interviews, the PR wrote a synopsis of each interview to support data analysis. All audio-recordings are kept on a password-protected computer to ensure confidentiality, and only the PR has access to the data.

4.2.7 Data analysis

The interviews were transcribed verbatim. The PR cleaned the data through reading each transcript while listening to the original recording. Following data cleaning, the PR invited two additional researchers to assist with data analysis to achieve intercoder agreement, one a health systems

researcher with expertise in qualitative data analysis, and the other the PR's research supervisor. Two diverse transcripts were given to the researchers involved in data analysis. We agreed on using inductive coding using direct words from participants to name codes and followed thematic analysis [217] to analyse the data. Codes were done independently by each researcher and we held a coding meeting to discuss and agree on the codes.

Following the coding meeting, the PR tabulated all the codes from the two transcripts and analysed them for recurring patterns of meaning, contradictions within and between transcripts. Using participants' words from the codes, the PR developed themes by writing text segments reflecting the meaning of the data. The PR also interrogated and evaluated themes for similarities and differences in meaning across different levels of government and across provinces, and compared the generated themes against Bressers' theory and vice versa.

The PR then distributed the developed themes to the other two researchers who had coded the data, for review and validation of the final themes. After agreeing on the final themes, the PR analysed the rest of the data.

4.2.8 Trustworthiness and rigor

We applied Lincoln and Guba's criteria of trustworthiness in the study [181]. The participation of two other researchers in data analysis ensures reliability of the findings. Attaching excerpts of narratives in the report writing to illustrate themes ensures confirmability. The iterative process of repetitive listening to the audio-records during data cleaning allowed for prolonged engagement with the data, thereby ensuring credibility. We read the synopses of interviews and used these as a reference to validate codes during the analysis of the rest of the data and to confirm the final generated themes.

4.2.9 Ethics approval and consent to participate

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand provided study approval (M170661). We also obtained study permission from the provincial health authorities in Gauteng and Mpumalanga provinces, local government and district health authorities, and individual health facilities. All participants were given a detailed information sheet, as well as a verbal explanation of the study. We also informed study participants of the voluntary, confidential, and anonymous nature of study participation. We use participant codes to ensure anonymity of study participants. The study results are kept on a password-protected computer, and only the principal researcher (SM) has access to the password.

4.3 Results

A total of 37 key informants agreed to participate in the interviews, and there were only two refusals with no specified reasons. The key informants who consented to participate consisted of the following groups of health policy actors: national government (n=3), provincial government head office (n=5); district (n=9), sub-districts (n=13), local government (n=6).

Table 8 shows the alignment between Bressers' theory [73] and the inductive themes that emerged from the study. Although these overlap, we elaborate on these below.

Table 8 Emerging themes on the context of the ICRM programme and interplay with the characteristics of actors

Emerging themes on the context of the ICRM programme and interplay with the characteristics of actors				
Context		Actor characteristics (Cognition/Motivation/power) as influenced by the context		
	Themes	**Cognition**	**Motivation/ Demotivation**	**Power/capacity or Lack of Power**
Wider context	Improving quality in preparation for NHI implementation	NDoH recognised the need to improve quality in preparation for NHI	NDoH motivated to improve quality at PHC level	NDoH used legal powers to drive the ICRM programme
Structural context	Contestations about roles and responsibilities	Conflicting views on roles and responsibilities	Frustrations about lack of reporting structure and lack of accountability	Unfulfilled responsibilities by all government spheres disempowered the implementers at facility level
	Weak inter-governmental relationships	Provincial ,district and local government reported ineffective communication, lack of co-operation and top-down approach of the NDoH	Lack of ownership, insufficient buy in, leading to demotivation	-
	Local leadership enables implementation	District and local government perceived their leadership	Knowledge and experience motivated the	Managers negotiated for additional resources

		knowledge and skills as facilitating the implementation	sub-district managers to implement ICRM	
	Insufficient resourcing of ICRM	Ambivalence about ICRM programme sustainability	District managers expressed urgency and advocated for spending	District and local government staff reported lack of authority or control over NHI grant or provincial cash flow
Specific context	Gaps in existing policy	District and local government staff reported insufficient communication on the NCS and lack of enforcement	NDoH motivated to design ICRM programme to assist with NCS compliance	Insufficient communication disempowered district actors
	Insufficient policy coherence or disjuncture	District and local government staff recognised the need to align tools	District and sub-district staff experienced frustration, confusion, and, exhaustion, which were demotivating	Perceived lack of power to influence the alignment of tools
	Geographical variations Infrastructural variations	Ambivalence about ICRM programme	District and local government staff reported sense of despair that some facilities will never be ideal	Perceived lack of capacity to implement ICRM in facilities with infrastructure challenges

4.3.1 Wider Context

The central theme on the wider context was the imperative to improve the quality of PHC in preparation for NHI implementation. The NDoH conducted an audit of PHC in 2011 [218], which revealed poor infrastructure of PHC facilities, long waiting time, shortages of medicines, and lack of cleanliness, leading to patient dissatisfaction and poor utilisation of PHC facilities. Key informants at national level were of the opinion that the facility audit results provided the major impetus for an improvement initiative, which then became the ICRM programme.

> *In 2011, we commissioned an audit of all health facilities in the country, where a team visited more than 4000 facilities in the country. The majority of the primary healthcare facilities were in a bad state, from infrastructure, waiting time, shortages of medicines, cleanliness, patient satisfaction and infection care control. We thought we could come up with a single approach to improve* [PHC] *healthcare facilities.* (Key Informant 2, National)

The health facility audit revealed the difficulties of PHC facilities to comply with the NCS of the OHSC, despite ongoing assessments of these facilities. Hence, the ICRM programme sought to address the problem of non-compliance.

> *We realised that we need to do something internally to proactively improve the quality of the health facilities. If we didn't, the Office of Health Standards Compliance would find year after year non-compliant* [PHC] *facilities. The ICRM programme is a structured systematic approach to improve quality.* (Key Informant 1, National)

Hence, the NDoH used their constitutional powers [32] and the provisions of the National Health Act [10] to develop a national policy for quality improvement in the PHC facilities. This cognition combined with the problems revealed by the PHC facility audit served as motivation for the NDoH to initiate and drive the implementation of the ICRM programme.

Key informants from both provincial and local authorities were of the opinion that the ICRM programme was conceptualised to deal with the lack of standardisation of PHC facilities across

the country. They highlighted the need for uniformity of all PHC facilities irrespective of their geographical location, and to increase PHC facility utilisation in preparation for the NHI system.

> *The idea was to make all facilities in the country to be the same, because if you go to Gauteng you must get the same quality of service that you get in Mpumalanga, irrespective of rural and urban variations.* (Key Informant 25, District level, MP)

4.3.2 Structural context

There were four themes that emerged namely: contestations about roles and responsibilities, weak inter-governmental relationships, enabling local leadership, and insufficient resourcing of ICRM programme.

Contestations about roles and responsibilities

There were conflicting views on the roles and responsibilities, depending on the positionality of the key informants interviewed. The sub-themes that emerged included unfulfilled responsibilities, contestations about ICRM programme funding, unclear and or lack of enforcement of roles, and lack of a reporting structure in Gauteng Province.

Unfulfilled responsibilities

Key informants from national government indicated that their roles were to conceptualise the ICRM programme and develop the policy documents for the implementation, communicate the idea to the other levels of government, set targets for all provinces, establish teams to oversee provinces, establish a delivery unit for the ICRM programme and provide funding. Although key informants from other government spheres shared this view, they talked about the perceived failure of the National Department of Health to produce the requisite policies on time.

> *Currently, there is not a signed policy for waiting times, just a draft. Clinical audits, a draft. So, the role from National has not been clear, I mean how long did it take them to provide us a signed copy of the patient experience of care? It took few years. We received it last year [2017]. The Clinic Card Audit is outstanding; the referral policy is outstanding.* (Key informant 12, Tshwane municipality, GP)

The provincial key informants were of the opinion that the role of the provincial sphere was to develop memoranda of agreement between the Provincial Department of Health and other departments (e.g. Department of Education), and to support the districts. However, those at the district level, pointed to the perceived lack of ownership of the programme by the Gauteng Department of Health (GDoH), and the lack of support. Furthermore, they were of the opinion that GDoH delayed in assigning the ICRM focal person, and did not perform their roles until the district was obliged to communicate directly with the NDoH.

> *In my opinion Gauteng Province hasn't really supported us at all with the ICRM programme, in fact they saw this [programme] as a monster, and it's only* now *recently that the ICRM programme is being spoken at the same level as the national core standards. I really don't see what role they* [GDoH] *played in the whole process.* (Key informant 6, District level, GP)

Similarly, in Mpumalanga Province, some key informants indicated that the provincial committee for the ICRM programme was unable to hold meetings.

> *The short coming of our Mpumalanga province is that they are not able to have meetings of the ICRM programme. They should be meeting on a quarterly basis.* (Key informant 23, District level, MP)

These PHC facility managers reported that the unfulfilled roles and responsibilities by various departments and levels of government created a sense of disempowerment and influenced their ability to achieve ideal clinic status.

There were also contestations about the role of the provincial health department in funding of the ICRM programme. National level key informants thought that GP should start allocating funds for the ICRM programme.

> *I think the provinces should take ownership, and apportion resources to drive the programme.* (Key Informant 3, National)

In contrast, provincial level key informants considered the ICRM programme as an unfunded mandate, and thought that it was the NDoH's responsibility to fund the ICRM programme.

> *It would have been ideal for provinces to fund, but that was an unfunded mandate on our side. We do the* [financial] *planning in advance and this* [ICRM] *programme was not in the budget process.* (Key informant 3, Provincial level, GP)

All key informants agreed that the local government and district level of provincial government were responsible for the actual implementation of the ICRM programme. Such implementation included facility assessments, assisting PHC facility managers to identify deficiencies in their facility and to develop quality improvement plans to support achievement of the required standards. Furthermore, local government and districts were responsible for resource motivation and negotiation to support the PHC facilities, and to support the maintenance of ideal facility status. However, the local government in Gauteng was criticised for lack of cooperation and at times refusing to implement provincial instructions. One key informant pointed to the failed discussions over provincial government branding of all the facilities including those managed by the local government, and on the local government's refusal to provide signage to PHC facilities. The latter is an important criterion in the implementation of the ICRM programme.

> *"Some of the challenges are issues like branding of a clinic. The municipalities insist on using their own brand. The ICRM programme requires that every province should use the provincial premier for their clinics but then you don't have that kind of buy-in from the municipalities.* (Key informant 5, District level, GP)

Role clarity

Although the majority of key informants thought that the roles were clear, and well described in the ICRM programme manual, some thought there was lack of enforcement of roles and responsibilities, and unclear responsibility and lack of accountability. These affected PHC service delivery. Those who described roles as unclear pointed to overlapping roles, and an unclear reporting structure.

> *They* [roles] *are clear except the enforcement because while the responsibilities are clear in terms of performance on the ICRM programme. The facility gets punished for things they're not responsible for.* (Key informant 5, District level, GP)

In GP, some of the key informants were of the opinion that there is lack of role clarity between national, provincial district health services and the provincial quality assurance departments.

> *You have the national; you have the [provincial] quality assurance unit which is not part of the ICRM programme. Then you have the [provincial] district health services unit which is responsible for primary health care in the province, now the question is who then takes responsibility between the two of them? (*Key informant 6, District level, GP)

In MP, a key informant was of the opinion that there were overlapping roles and responsibilities:

> *I think the roles are overlapping and that they cause a situation of when a function is not clearly designated ….it makes everyone run around doing the same thing. (Key informant 24, District level, MP)*

In GP, some key informants were of the opinion that there was an unclear reporting structure for the NHI district. Consequently, the pilot district liaised directly with the NDoH and GDoH was kept informed on need to know basis.

> *In Gauteng province, we did not have an NHI coordinator. When we started, National* [DoH] *appointed directors to assist with that process at a provincial level. There was no one appointed for Gauteng. Because the piloting was happening in Tshwane, one of*

Tshwane managers was taken as a coordinator of NHI in the province by virtue of being in a pilot site. There was no structure in the province to hold Tshwane district as an [NHI] pilot site accountable. (Key informant 5, District level, GP)

In GP, the lack of role clarity resulted in some policy actors at district level bypassing the provincial level, and requesting resources from NDoH. In MP, the lack of role clarity reportedly caused delays in procuring equipment for the facilities, and confusion on the execution of certain tasks.

Because when we wait for equipment from national, sometimes you submit this list in March this year until next year March you continue to wait, we continually score zero for certain equipment. We cannot buy it because we've sent already the list to national. (Key informant 24, District, MP)

Weak inter-governmental relations

Key informants pointed to relatively poor relationships across government spheres, characterised by a perceived top-down approach of the NDoH, ineffective communication, lack of cooperation including disagreements on goals and ambitions. The perceived weak relationships between government levels and between departments, decreased policy actors' sense of ownership of the ICRM programme.

It [ICRM programme] was forced on us. It has been pushed down to us without really proper communication…. like all the other [health] *programmes.* (Key informant, Tshwane municipality, GP)

There was also the perception that the NDoH did not consider the views of people from local government.

This concept is actually driven from the national space. If we could have had an opportunity to say 'let's hear the views from the implementing partners' meaning your

*locals, your districts, and so on and so forth, maybe we could have actually worked it out in a different way. (*Key informant 7, Tshwane Municipality, GP)

The insufficient involvement of implementers in conceptualising the ICRM programme, led to lack of buy-in.

Initially we also didn't have ownership and buy-in in of the ICRM programme. Because they [clinic staff] *also felt that it's forced down on us, expecting us to come with a prescribed checklist expecting all these things from us.* (Key informant 11, Tshwane municipality, GP)

Furthermore, the nature of communication across the three government spheres was described as rigid, hierarchical, and uncoordinated, at times not reaching sub-districts and PHC facilities.

Information comes from national to the province, the province sends it to the district, and the district must send down. When you communicate from the province, you should send information to the person at the district and copy those people at facilities so that they are on board, but that doesn't happen. It leaves those at the ground level uninformed. (Key Informant 9, District level, MP)

National is communicating with provinces; provinces should communicate with local government and the districts. But Gauteng province doesn't do that, they communicate with the district and the district then has to communicate with the local authority. That was a challenge. (Key informant 6, District level, GP)

Some key informants from the provincial level voiced their opinions about an uncooperative local government.

The municipality has this thing that,'hey, I'm my own boss. We are an independent sphere of government. They [Gauteng province] *are not going to tell us what to do'. Sometimes you find that when you're communicating, making requests, [or], advising on something, the response takes forever.* (Key informant 3, Provincial level, GP)

In contrast, some key informants were of the opinion that there were disagreements on goals and ambitions of national and provincial departments of health, with each pursuing its own quality of care initiative e.g. national implementing ICRM programme and the provincial quality assurance focused on the NCS.

> *Even up to now, the ICRM programme is seen as a programme of district health services. Quality assurance in the province has not bought into the ICRM programme. They're pursuing the national core standards; they couldn't be bothered with that [ICRM] programme.* (Key informant 5, District level, GP)

Enabling local leadership

Key informants underscored the importance of local leadership in enabling successful ICRM programme implementation. Those facility managers with extensive and wide-ranging PHC experience, management, clinical care, as well as passion for quality assurance, enabled successful ICRM programme implementation.

> *I trained in primary healthcare in 1985. Then, I became a clinic manager, at that time I managed two clinics…my practical experience of working in the facilities contributed to my knowledge of what is required, and …but also my love for, always trying to do the right thing. (*Key Informant 10, Tshwane municipality, GP)

These experienced and knowledgeable managers were both motivated and used their agency to negotiate for additional resources, or to share resources with other PHC facilities.

> *We do assessments and identify gaps, thereafter we mobilise resources within sub-districts. When one facility doesn't have a required item and you see that another facility has two, you ask that facility to share. (*Key Informant 31, Sub-district, MP)

> *We keep escalating the identified challenges; we make recommendations out of the gaps and influence the following year's budget projection.* (Key informant 12, Sub-district, GP)

Insufficient resourcing of the ICRM programme

Key informants indicated that the NHI conditional grant was only allocated two years after the commencement of the ICRM programme. Once they obtained the conditional grant, there were spending challenges because of the conditionality of the grant, and insufficient consideration of the needs of the ICRM programme. In Mpumalanga the spending challenges were also exacerbated by the hospital based supply chain, which did not prioritise PHC needs.

> *There were challenges. It [the grant] had so many limitations, that's why in all provinces, the first grant was not spent. They [NDoH] will tell you, you couldn't buy equipment, the fund is for training.* (Key informant 5, District level, MP)

> *The biggest problem is, even if you can give me a 100 million rand now [USD 8 million, 1 USD=R15], to say get these 10 PHC facilities to be ideal. Because it's government money, I have to have use supply chain and in our case [Mpumalanga province] supply chain that is available is at the hospital.* (Key informant 27, District level, MP)

The City of Tshwane District indicated that accessing resources was a challenge, due to limited delegations, cash flow problems at the Gauteng province and the budget transfer from national to province.

> *Once the HOD [Head of Department] has signed, you would expect implementation to be smooth because this is an approved business plan. However, implementing and spending remained a challenge. Whatever internal processes of the province were in place at the time, it also, affected us. If the province had problems paying suppliers, it included our [ICRM] budget.* (Key informant 5, District level, GP)

The insufficient resources affected the morale of policy actors and constrained ICRM programme implementation.

4.3.3 Specific context

Three major themes emerged namely, gaps in the existing policy (NCS), insufficient policy coherence or disjuncture between the NCS and ICRM programme, and a need to consider geographical variations when implementing a national policy. The majority of key informants were of the opinion that the ICRM programme is more appropriate for the PHC level, compared to the NCS, but that the ICRM programme could assist with compliance with the NCS.

> *The national core standards were established initially from a hospital perspective and didn't necessarily address quality issues related to a PHC facility. Therefore, it [ICRM] helped to refine the tools for the OHSC in terms of how they measure quality in a [primary] health care setting.* (Key informant 5, District, GP)

Some key informants were of the opinion that there was insufficient communication on, and lack of enforcement of, the NCS, both, which could have achieved the goals of improving PHC service quality.

> *If we emphasised the concept of national core standards, facilities would actually be ideal. But I think implementation was lacking.* (Key informant 7, Tshwane Municipality, GP)

Although some key informants viewed the ICRM programme as more appropriate to address quality standards at PHC facilities, they pointed to several design problems. These included duplication, rather than synergies between the ICRM programme and the NCS, competing processes, different expectations, different indicators, tools, measurement approaches and at times requiring different kinds of evidence.

> *There are still some challenges and clashes between the two* [NCS and ICRM programme], *because you find that there are some disagreements in relation to what is required from a facility to comply with both NCS and ICRM programme. They [*NCS and ICRM Programme Tools] *want different evidence in relation to the same element.* (Key informant 2, Provincial level, MP)

> *There are times where you find that the NCS would say this is not necessary for the primary healthcare setup. And then the ICRM programme says this is an important or an essential*

or a vital element. The systems are conflicting with each other in terms of scoring. (Key informant 12, Sub-district, GP)

The district and local government actors reported that the duplication of efforts to comply with the ICRM programme and the NCS led to frustration, confusion, "audit exhaustion", and demotivation, exacerbated by resource constraints.

Some implications as I'm saying it's audit exhaustion. (Key informant 7, Tshwane Municipality, GP)

Key informants were of the opinion that that they couldn't influence the alignment between the NCS and ICRM programme tools, because they did not have the power to do so.

We have raised these issues [of merging NCS and ICRM programme tools] in different platforms, and it is not helping us at all. (Key informant 5, District level, GP)

The debate to align the tools took full two years, I'm not exaggerating. (Key informant 2, National)

Key informants also highlighted differences between rural and urban facilities, and a need to consider such geographical variations during implementation. They pointed to the facilities, which were not designed for expanded PHC services, yet were expected to meet the desired programme standards.

A national tool can't be a one size fits all process. While it can set generic principles, there are provincial issues that need to be dealt with, and for example the level of services, staffing and skills that you will have in a clinic in a rural setting would be different from an urban setting. (Key Informant 5, District level, GP)

> *We have facilities that were not custom made to be clinics, and we are trying to force a tool to evaluate them as ideal when they are actually not.* (Key Informant 24, District level, MP)

Some expressed a sense of despair on whether it was possible to implement the ICRM programme in PHC clinics with infrastructure challenges.

> *I have three facilities that will never be ideal* [meet the requirements of the ICRM programme]. *It's one facility in a one room house; it's another clinic that is situated in an old hotel that is dilapidated, and* [the third] *facility that is situated in a farming area.* (Key Informant 22, District, MP)

4.4 Discussion

This study set out to generate new knowledge on the policy context of the ICRM programme implementation, and examine the influence of context on the characteristics of the policy actors and how these interactions influenced ICRM implementation. Furthermore, we explored the policy coherence between the ICRM programme and the NCS, and the perceptions of national, provincial and local government stakeholders on these two quality improvement reforms.

This was one of the first studies in South Africa that used Bressers' Contextual Interaction Theory to explore the implementation of the ICRM programme. The latter is a relatively recent reform, commenced since 2013. This study found that the NDoH's primary motivation (*the wider context*) was PHC quality improvement in preparation for the implementation of the NHI system. PHC is the stated foundation of South African health system [46]. Notwithstanding the existence of the OHSC as a legal entity, the NDoH used its legal authority and power to conceptualise the ICRM programme as the main vehicle for PHC quality improvement, and to ensure compliance with the NCS [12].

In this study, the *structural context* of the ICRM programme implementation was characterised by contestations about the roles and responsibilities of the different government spheres. These contestations were illustrated by conflicting views of key informants, and perceptions of unfulfilled responsibilities or commitments, lack of enforcement of existing policies, such as the NCS, and unfunded mandates. These contestations were exacerbated by reportedly weak inter-governmental relationships, and poor or ineffective communication. However, the South African Constitution is clear on the roles and responsibilities of different government spheres [32], while sectoral legislation such as the National Health Act [10] and Inter-governmental Relations Framework Act [219] provides additional clarity. The ICRM manual also outlines the roles and responsibilities of different government spheres in the implementation of the programme [220].

Other studies that have examined the effectiveness of local government in South Africa have also found that insufficient clarity on roles and responsibilities across government spheres led to overlapping functions by provincial and national government, with adverse consequences for social service delivery at local level, complaints of unfunded mandates, and lack of accountability to communities [142, 221]. Health policy implementation studies in South Africa have underscored the importance of role clarity of different government spheres in PHC delivery [222]. In contrast poor communication [212, 213] and weak or strained relationships across different government spheres hamper implementation and the effective functioning of the district health system [144, 222-224]. These findings on lack of role clarity and diffuse accountability have also been reported elsewhere. A study in Nigeria found overlapping functions and diffuse accountability when many ministries were assigned an administrative role at PHC level [139], while a multi-country study in Mozambique, Nepal and Rwanda underscored the importance of effective governance in ensuring successful implementation of maternal and child health policies [225].

Our study found that local leadership enabled ICRM implementation, as the experienced and knowledgeable managers were able to motivate or negotiate for additional resources to accelerate implementation. Other studies in South Africa [226], Bangladesh, Ethiopia, Kenya and India [227] have highlighted the importance of leadership for successful policy implementation. A study in Ghana also found that managers' capacity to lead is directly influenced by the contextual factors

[228]. In Indonesia, a study on factors influencing the success of a PHC quality improvement programme found that strong local leadership and their involvement in resource decision-making were success factors [229].

In our study, some key informants complained about insufficient resources, despite the allocation of a conditional grant to the NHI pilot districts. They also had concerns about long-term sustainability of the ICRM programme. These key informants' perceptions could be linked to the insufficient or unclear communication about the programme, or their resentment about the reported lack of consultation and involvement of policy actors at provincial and local government. Studies in other countries have also found that resource constraints adversely affect policy implementation. In Nigeria, two studies found that insufficient funding, incompetence in financial management, weak drug supply system, inadequate infrastructure, and weak coordination of resources hampered the implementation of PHC policies [31, 230]. Similarly, in Tanzania the dependency on a centralised budget for accessing funds delayed implementation of the contracting-out of PHC services [94], while in Ghana, inflexible funds led to a disjuncture between the planned budget and actual expenditure [231].

Key informants in our study reported that the NDoH did not take into account geographical variations and/or the gaps in the NCS. A study on management of health equity in Ethiopia found that geographical variations influenced inequalities in access to healthcare, and the degree of support and supervision of frontline facility managers [232].

Bressers' Contextual Interaction Theory highlights the dynamic relationship between the context and the motivation, cognition and power of policy actors [170]. The theory underscores the importance of resources, because resource availability could strengthen, whereas shortages could weaken the power and motivation of a given policy actor [170]. In this study, the resource constraints (whether real or perceived) appeared to have weakened the position of policy actors at provincial, district, and local government. Although these policy actors engaged in programme

implementation, they expressed a mix of feelings of frustration, exhaustion, demotivation, resentment (because of lack of involvement), and disempowerment. These could influence the sustainability of the ICRM programme. For example the 2017 ICRM programme national report indicated that 16% of facilities which had previously attained ideal clinic status had lost it [195]. The 2019 annual report from the NDoH, indicated that 44% of the PHC facilities in South Africa had not met the ICRM programme requirements since its inception [196]. On February 2020, a five year review of the ICRM programme indicated that a total of 623 (25%) of the facilities that had attained the ideal clinic status since the programme started had lost their status [197].

We also aimed to explore whether there is policy coherence between the ICRM programme and the NCS of the OHSC as both these reforms focus on health system-wide quality improvements. Linked to this, was to explore how stakeholders at national, provincial and local government view or interpret these two quality improvement reforms. The study found that there was insufficient policy coherence between the ICRM programme and the NCS of the OHSC. Although the ICRM programme was conceptualised to deal with the inability of the PHC facilities to comply with the NCS, the ICRM programme appeared to have developed in parallel fashion, with little interaction or synergies between the two quality of care reforms. The policy disjuncture between the ICRM programme and the national core quality standards led to duplication of efforts, conflicting standards and tools, confusion and exhaustion among front-line staff responsible for implementation. Some key informants reported that neither provincial and local government, nor front-line staff had the power to influence the alignment of ICRM tools, contributing to feelings of despair and demotivation. The study found that stakeholders at national, provincial and local government were in agreement on their views about lack of coherence of the NCS and the ICRM a programme, yet they verbalised having no power to influence the alignment.

Scholars have highlighted the confusion created among implementers when there is lack of policy coherence or policy disjuncture, with possible duplicated efforts and wastage of scarce resources [71, 233, 234]. Howlett (2013) suggested that alignment of a new policy with an existing policy on a similar issue should be considered during policy design [235]. Another South African studies

have found policy incoherence between government action to promote a healthy food supply and government objectives for economic liberalisation [236]. A study in Iran found that power dynamics, disagreements and diverse interests among policymakers and organisations resulted in policy incoherence [237]. Similarly a multi-country study in China, India and Vietnam also found lack of coherence between each country's human resource strategy and maternal and child health policy, which affected implementation adversely [238].

The study was limited by focusing on two of the nine South African provinces. The findings may not reflect the implementation of the ICRM programme in the other provinces. In addition, key informants were interviewed at a point in time, which may have influenced the views expressed. There is always the possibility of social desirability bias, because of the self-reported nature of the information. However, the PR ensured that care was taken with the design of the interview schedule. The interview was conducted in a private and comfortable setting, and rapport was established with each key informant. Importantly, all the key informants are senior government officials, whereas the PR is a relatively junior doctoral student.

However, the study has numerous strengths: this was one of the first studies in South Africa that applied Bressers' Contextual Interaction Theory to the implementation of the ICRM programme in the health sector. We generated new knowledge on the policy context of the ICRM programme implementation; and the influence of this context on actors' motivation, cognition and power. The study yielded rich information on the complexities and nuances of ICRM policy implementation in these two NHI pilot districts, and the unique issues that need to be addressed to strengthen implementation.

There are several recommendations that emerge from this study. With regard to the policy disjuncture, the South African government has invested considerable resources into both the ICRM programme and the OHSC as a legal entity. The ICRM programme has the potential to revolutionise quality at the PHC level, and to be complementary to the NCS of the OHSC. Careful

planning, coordination, proactive leadership, resources and skills are policy implementation enablers [239, 240]. The policy incoherence could be addressed by improving communication across the three spheres of government. The South African Lancet National Commission report provides a useful starting point for the discussion across national, provincial and local government on the critical imperative of improving quality in the South African health system [47]. The policy incoherence could also be addressed by involving frontline PHC and district managers and incorporating their views in the revision and alignment of the tools used in the ICRM programme and the NCS. At the time of writing, there were encouraging developments with staff responsible for both programmes having discussions about the alignment of the assessment criteria and tools.

The NDoH has the opportunity to improve leadership of the ICRM. We recommend that the NDoH should develop a clear communication strategy, including an outline of different roles and responsibilities. The NDoH should also review the criteria for any future conditional grants, to ensure that the guidelines are clear, that the views of all policy actors are taken into account, and that flexibility is built into the grant.

Lastly, the NDoH should invest in broader capacity building to ensure successful implementation of the ICRM programme. Such capacity building should be at health system level through the creation of an enabling environment with infrastructure and resources and at an individual level through the training of district and frontline PHC managers.

Future research is needed on the impact of the ICRM programme implementation, using quantitative indicators, and covering all provinces to ensure generalisability. The qualitative information generated in this study could assist with the design of questionnaire to measure impact.

4.5 Conclusion

This study generated new knowledge on the context of implementing the ICRM programme, a health sector reform that involves PHC quality improvements. South Africa is preparing for the full implementation of the NHI system. The study contributes lessons for policymakers to take into account the context of policy implementation, and how the context influences the characteristics of policy actors. The design of any health reform should take into account similar policies or initiatives to ensure coherence, and ensure the availability of resources. Any major change initiative such as the ICRM programme requires involvement of all relevant policy actors in both the design and implementation. A clear communication strategy, and ongoing monitoring and evaluation are prerequisites for the success of policy implementation.

4.6 Author contributions

Sabelile Muthathi (SM) is the principal researcher; both SM and Laetitia Rispel (LR) conceptualised and designed the PhD study. SM collected all the data as part of her PhD. LR is the supervisor of the PhD. SM and LR analysed the data with inputs from a third researcher. Both authors contributed to the writing and editing of the manuscript, read and approved the final version of the manuscript.

CHAPTER 5: INTER-GOVERNMENTAL RELATIONS IN THE IMPLEMENTATION OF THE IDEAL CLINIC REALISATION AND MAINTENANCE PROGRAMME

5.1 Introduction

An explicit global target in the Sustainable Development Goals (SDGs) is the achievement of UHC by 2030 [1, 241]. UHC, which combines access to quality, essential health services and financial risk protection, is a major focus for policy-makers at a global level [242]. South Africa has also embarked on a series of health sector reforms towards UHC, with prioritisation of the implementation of the NHI system [42].

The first phase of implementing the NHI policy commenced in 2012, with a specific focus on strengthening of the public health sector [45]. The National Department of Health (NDoH) identified NHI pilot districts in all of South Africa's nine provinces, and initiated several projects with the intention of overhauling service delivery in the public health sector [12]. These projects included but were not limited to the re-engineering of PHC, improving public hospital infrastructure, and enhancing quality of care [43]. The NDoH prioritised the re-engineering of PHC, as the stated foundation of the South African health system [243]. Although the re-engineering of PHC consists of several strands, the notion of the "ideal clinic" took centre stage in the NDoH's efforts to implement the first phase of the NHI [43]. The NDoH defined an ideal clinic as a clinic with "good infrastructure, adequate staff, adequate medicine and supplies, good administrative processes, with sufficient adequate bulk supplies and it uses applicable clinical policies, protocols and guidelines, and it harnesses partner and stakeholder support" [65]:11. The NDoH envisages the ideal clinics initiative, now called the Ideal Clinic Realisation and Maintenance (ICRM) Programme, as an approach to transform all PHC facilities in the country, in order to comply with the norms and standards prescribed by the Office of Health Standards Compliance (OHSC) [14]. The OHSC is a South African legal entity that aims to protect and promote the safety of users of health services by ensuring compliance of all health establishments with the national core standards on quality [49]. The components of, and process towards reaching ideal clinic status have been described elsewhere [244].

Importantly, the NDoH took primary responsibility for the implementation of the ICRM programme in the NHI pilot districts [14]. However, there are three conceptual and practical challenges with the implementation of the ICRM programme as a centrally driven health policy reform. Firstly, the South African Constitution lists health services as a concurrent functional area of both national and provincial levels [32]. The Constitution grants the national level the power to pass national legislation, set norms and standards, relate to international organisations and monitor the delivery of health care [32]. The Constitution also assigns responsibility to provinces for the planning and implementation of services. Although the Constitution grants local government the responsibility for the delivery of municipal health services, these services are defined as environmental health services in the National Health Act [10, 32]. However, in the large metropolitan municipalities, local government owns and manages PHC facilities, and employs health professionals. The legislative concurrency means that provincial health departments and those municipalities that provide PHC services should be involved in the conceptualisation, planning and the implementation of the various NHI projects or initiatives.

Secondly, the 2015 White Paper on the NHI is silent on the role of provincial and local government in the implementation of the NHI [43]. The 2017 NHI policy underscores the need to clarify the roles and responsibilities of the three spheres of government in health service delivery [12]. Thirdly, existing evidence suggests that effective inter-governmental relations (IGR) in the development of policies and strategies are essential for the success of major health sector reforms [58, 245]. IGR refer to an interacting network of institutions at national, provincial and local government, created and refined to enable the various parts of government to work in a collaborative and coherent manner [67]:1. Effective IGR facilitate decision-making, successful policy implementation, sharing of resources during policy implementation, optimal service delivery to citizens, and enhanced responsiveness to citizens [112, 113, 116].

However, in practice such federal arrangements across levels of government are complex and difficult to manage. A multi-country study on federalism and decentralisation in the governance, financing, administration or delivery of health care found significant variations among the selected

countries, influenced by country context, resource availability and human resource capacity [118]. The authors identified the need for further research on federalism, decentralisation, and health sector reforms [118]. There is also recognition that dysfunctional IGR have serious negative consequences for public health as has been found in the case of the sub-optimal management of epidemics of infectious diseases [246]. In some instances, IGR could lead to the "joint-decision" trap [247]. A study on the implementation of the Affordable Care Act in the United States found that the law's fragmented institutional design across federal and state governments created opportunities for persistent political contestation of the law, complicating its implementation [136]. Similarly, a study on long-term care reform in Italy found that the weak and uncertain legislative framework of federalism, combined with uncertainty on the allocation and distribution of resources and the delay in applying the equalisation mechanism contributed to policy implementation failure [137].

The interaction among stakeholders of the IGR network is also important. A study in China examined the inter-governmental and inter-organizational network of emergency response to major accidents [138]. Despite the criticality of collaboration among relevant stakeholders in emergency response, there were weak network relationships between private and public organisations at the central, provincial, and municipal government levels [138]. These weak IGR contributed to slow emergency response times.

In South Africa, the concept of cooperative governance is enshrined in section 40 of the Constitution. The stated purpose of cooperative governance is to facilitate mutual decision-making, and ensure that the different government spheres support, communicate and consult with one another on relevant programmes [32]. Studies on IGR in the implementation of health reforms are scanty, especially studies that use social network analysis. In 2014, Kawonga et al used social network analysis to examine the interactions between managers of disease control programmes and general health services [248]. The study found that there was insufficient communication and collaboration among HIV programme managers and district managers, who were their direct

reports, and this had implications for monitoring and evaluation of the HIV programme implementation [248].

The NDoH reported that there was some stakeholder engagement in the implementation of the ICRM programme as the first phase of the NHI implementation [14, 43]. However, there is a dearth of empirical studies on IGR in the implementation of the ICRM programme.

This article draws on Provan and Milward's theory of inter-organisational network effectiveness and the tools of social network analysis (SNA) to examine IGR in the ICRM programme implementation [169]. The specific focus of the study was to measure the cohesion of the relationships, specifically consultation, support and information sharing, across national, provincial and local government in the implementation of the ICRM programme.

The study is important in light of the proposed health sector reforms in South Africa, which prioritises the PHC level. Importantly, the study adds to the literature on IGR in the implementation of health sector reforms.

5.2 Methods

5.2.1 Conceptual framework

This article draws on Provan and Milward's theory of inter-organisational network effectiveness to examine IGR in the implementation of the ICRM programme. The theory posits that network effectiveness is influenced by both network structure and network context [169]. Network structure refers to centralised integration and direct, non-fragmented control, while network context refers to system stability and resource availability [169]. In this study, the inter-organisational network is the IGR in the two South African provinces of Gauteng and Mpumalanga and we focused on examining the cohesion of the network structure. Cohesion is the extent to which all members of a network interact with one another [70]. Cohesion can be measured using network density, which

determines how connected actors are in a network as well as network centralisation, which measures the extent to which the network ties revolves around certain individuals in the network [70].

5.2.2 Study Setting

The study was conducted in the NHI pilot districts of the two South African provinces of Gauteng (City of Tshwane) and Mpumalanga (Gert Sibande). The City of Tshwane district is a large metropolitan municipality in Gauteng Province (GP), where local government owns 24 of the 63 PHC facilities. Hence, in GP all three spheres of government are involved in ICRM programme implementation. The Gert Sibande district of MP has 64 PHC facilities all managed by the provincial government [178], its local government was not involved in ICRM programme implementation. Hence, in MP only national and provincial departments of health are involved in the ICRM programme implementation.

5.2.3 Study design

This was a whole network study design that included all actors eligible in the specified network boundary [69]. The network boundary of the study was IGR in the implementation of the ICRM programme. Whole network study design assumes that members of a group (in this case national, provincial, and local government involved in the ICRM programme) interact more than randomly selected individuals, enabling analysis of the network structure of the group interaction [249].

5.2.4 Participant selection

The network boundaries (inclusion criteria) for health policy actors were: involvement in conceptualisation of the ICRM programme; occupied a relevant health leadership position at national, provincial or local government sphere (e.g. chief director, director, deputy-director); and responsibility for the implementation of the ICRM programme in the NHI districts of Tshwane (GP) and Gert Sibande (MP). Implementation activities could include coordination, support, communication, training, ensuring availability of resources, and/or facility assessments. This ensured that the information for the social network analysis was obtained from the right individuals [250]. The principal researcher compiled a list of these actors, known as a network roster.

Snowball sampling was used to identify other potential actors who interacted with actors on the network roster [251], provided that such person was mentioned by at least two actors. In the City of Tshwane NHI district, 22 actors were included and in the Gert Sibande NHI district, 26 actors were included.

5.2.5 Development of the data collection instruments

Both an interview schedule and network matrix, i.e. a spreadsheet for plotting the existence or non-existence of relationships, were used to collect the data for SNA.

Interview schedule: The final section of the key informant interview schedule focused on IGR. This section contained six questions, which focused on consultation, support and information sharing.

Consultation refers to "direct communication between policy-makers and affected actors whereby policy feedback is received in the policy process about the feasibility of policy choices, the legitimacy of adopted measures and the potential challenges in policy implementation [64]: 47. In this study, consultation refers to either seeking or proving advice by the various policy actors in the ICRM programme implementation. Two questions elicited responses on seeking advice or providing advice in the implementation of the ICRM programme.

Support refers to encouragement, motivation and/or resource/ technical assistance in the ICRM programme implementation. Two questions in the interview focused on giving or obtaining support in the implementation of the ICRM programme.

Information sharing refers to "sharing of tacit and/or explicit knowledge whether through formal documents, informal talks[66]:4. In this study, there were two questions that focused on giving or receiving information about the ICRM programme.

Network Matrix: The principal researcher (PR) developed a spreadsheet with columns and rows, to plot the presence and absence of a tie (relationship) for seeking advice, providing advice, seeking support, providing support, giving information and receiving information.

A team of health systems researchers reviewed the data collection tools for content validity. Following this review, the PR piloted the tools with two key informants from a different health district to ensure clarity of questions and the time taken to complete the interview. There were no revisions required.

5.2.6 Data collection

The PR contacted each key informant (i.e. identified actor) to request voluntary participation in the study. Following consent to participate, the PR arranged the interview date and time with each key informant. All interviews were conducted in English, after obtaining written, informed consent for both the interview and its audio-recording. The section on social network data was part of the interviews for the main study. The interview started with an introduction to the overall study, and an explanation of the voluntary nature of participation. Each participant was informed that there were two sections to the interview; with the last section focusing on interactions and relationships in the ICRM programme. On completion of the initial section, the PR introduced the key informant to the last section, which contained questions regarding the IGR.

Following the introduction, the key informant was presented with a network roster, and was oriented to the list of actors who were on the roster. The PR asked each question to the key informant, and, captured all the data in the matrix. If a participant reported to have spoken to a group or team instead of individuals, the participant was encouraged to identify individuals within the group. The social network matrix was used for plotting the interactions as verbalised by the actors. The presence of a relationship was indicated by a ‘1’ and its absence was indicated by a zero ‘0’. The collection of the social network data (relational data) took an average of 30 minutes, although the time varied depending on the actors interviewed. Before the end of each interview, the PR summarised the stated relationships to validate if these relationships were captured correctly.

5.2.7 Data management and analysis

All interview sessions were audio-recorded and transcribed verbatim. The PR read, and re-read summaries against the network matrix to validate data before analysis.

A total of 12, matrices of SNA data, six for each province, were cleaned in Microsoft Excel and imported to UCINET version 6.619 [182] for analysis. The data were analysed per province since the primary interactions were expected to be amongst actors within a province. We analysed the data (all 12 matrices for GP and MP) for the cohesion of the network structure i.e. the overall network cohesion and cohesion within and between the government spheres. Netdraw version 2.159 [252] software was used to generate sociograms.

Table 9 contains a description of terms and network measures that were analysed in this study.

Overall cohesion of the inter-governmental relationships: In order to determine the overall cohesiveness of the network structure, the number of possible ties, number of present ties, and overall density of each network were computed.

Network cohesion within each government sphere: We computed the densities for each government sphere in order to determine the cohesiveness of the network within that sphere. Density measured the extent in which actors within a government sphere interacted for consulting, supporting and sharing information with each other.

Network cohesion between government spheres: In order to determine the cohesiveness of the network between spheres, we computed the densities of two combined spheres when interacting with each other.

Table 9 Network Measures applied in the study

Network Measures applied in the study	
Properties	**Description**
Number of possible ties	Possible ties are calculated as n (number of actors) multiplied by number of actors-1 (n (n-1))
Density	Density of a network is the number of present ties out of possible ties [68]. It indicates whether each actor is connected to all possible ties in a network. Values ranges from 0 (no ties) to 1 (all ties present) [253] expressed as percentages in this study. Density can be categorised into low (below 30%), moderate (between 30 and 50%) and high (above 50%) [253].
Centralisation	The extent to which the network ties are focused on few people in the network [70]. Values ranges from 0 to 1, closer to 0 means least centralised (i.e. there is almost equal distribution of ties, power, control etc.) and closer to 1 refers to highly centralised network (only central actors have power, control over network activities e.g. making decisions on behalf of network members) [254].

5.2.8 Validity and reliability

Setting the network boundary ensured that the criteria for belonging in a network were described upfront and in line with the research objectives [69]. Using the network boundary ensured that information was collected from all eligible participants [255]. The use of a network roster, reduced recall bias of the actors interviewed and ensured that there were no missing data [251].

5.2.9 Ethical considerations

We obtained ethical approval from the Human Research Ethics Committee (Medical) of the University of the Witwatersrand (#M170661). Permission to conduct the study was obtained from the NDoH, the Gauteng and Mpumalanga provincial health departments, and the City of Tshwane

local government health department. All participants were given a detailed information sheet, as well as a verbal explanation of the study. All participants were informed of the voluntary and confidential nature of study participation. The study results are kept on a password-protected computer, and only the principal researcher (PR) has access to the password.

5.3 Results

Four actors represented the national government sphere, while MP was represented by 22 actors, GP by 12 actors, and the City of Tshwane local government was represented by 6 actors (Figure 8)

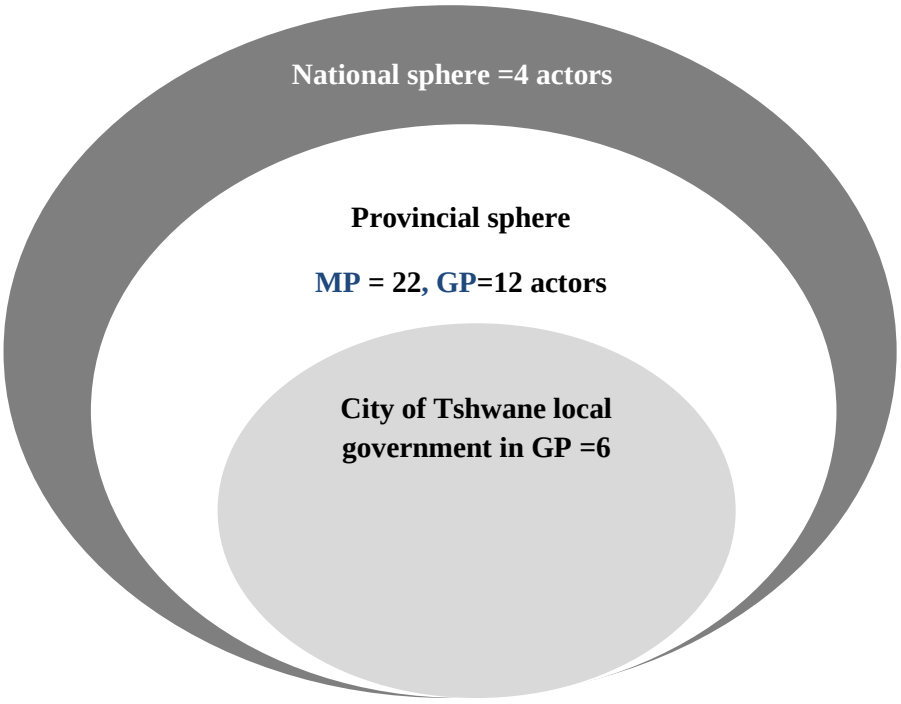


Figure 8 Overview of actors in the ICRM programme implementation

5.3.1 Overall network cohesion

Table 10 shows the density scores for consultation (seeking or providing advice), support and information sharing for the network in GP. The network in Gauteng consisted of national, provincial and local government actors. In GP, the overall possible ties for GP were 462, and giving support obtained the highest density of 21.2%. In GP, the overall network for seeking advice had a density of 15.6%, and for receiving support a density of 15.2%.

Table 10 Overall Network Cohesion in GP

Overall Network Cohesion in GP						
	Seeking advice	**Providing advice**	**Giving support**	**Receiving support**	**Receiving information**	**Providing information**
GP						**n=22 actors**
No. of possible network ties	462	462	462	462	462	462
No. of ties in a network	72	65	98	70	47	50
Density (%)	15.6	14.1	21.2	15.2	10.2	10.8
Centralisation	0.6	0.6	0.5	0.5	0.6	0.8

Table 11 Overall Network Cohesion in MP

Table 11 shows the density scores for consultation (seeking or providing advice), support and information sharing for the network in MP. The network in MP consisted of national and provincial government actors. In MP, the overall possible ties were 650, and the highest density of 25.1% was obtained for providing advice. The network for seeking advice had a density of 23.4%, and for receiving support a density of 22.3%. In both provinces the interactions regarding the ICRM programme implementation revolved around a few individuals, illustrated by the centralisation values of 0.5-0.8 in GP and of 0.5 - 0.7 in MP.

Table 11 Overall Network Cohesion in MP

Overall Network Cohesion in MP						
MP	**n=26 actors**					
	Seeking advice	**Providing advice**	**Giving support**	**Receiving support**	**Receiving information**	**Providing information**
No. of possible network ties	650	650	650	650	650	650
No. of existing ties in a network	152	163	156	151	130	163
Density (%)	23.4	25.1	24.0	22.3	20.0	25.1
Centralisation	0.7	0.6	0.5	0.6	0.6	0. 7

Figures 9 and 10 are the network diagrams for the interactions for *receiving information* from others. Densities for receiving information from other actors were 20% for MP and 10% for GP, indicating that both networks were sparse. The diagrams show that some actors had no interactions with other actors within their sphere, (see unconnected nodes of the same colour).

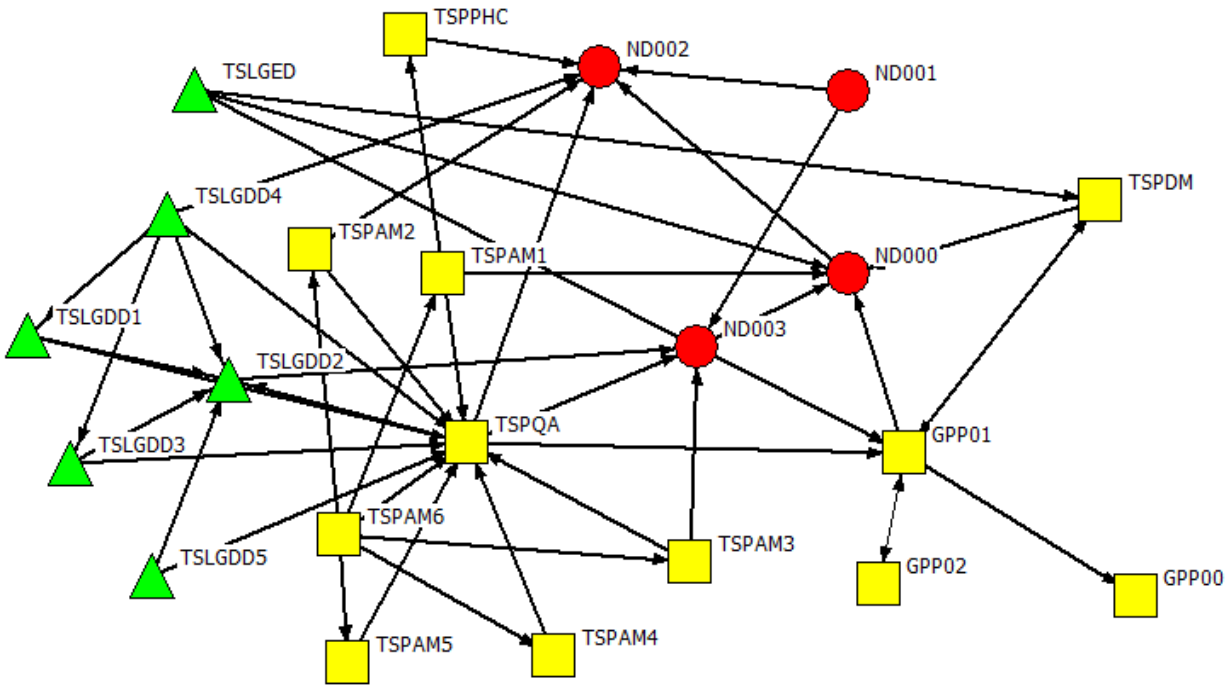


Figure 9 GP Network: Receiving information

Legend:				
	Colour and Shape of nodes	= **National**	= **Provincial**	= **Local Government**
	Nodes labels	ND = A label starting with ND refers to a national actor	TSP= A label starting with TSP refers to a provincial actor	TSLG=A label starting with TSLG refers to a local government actor

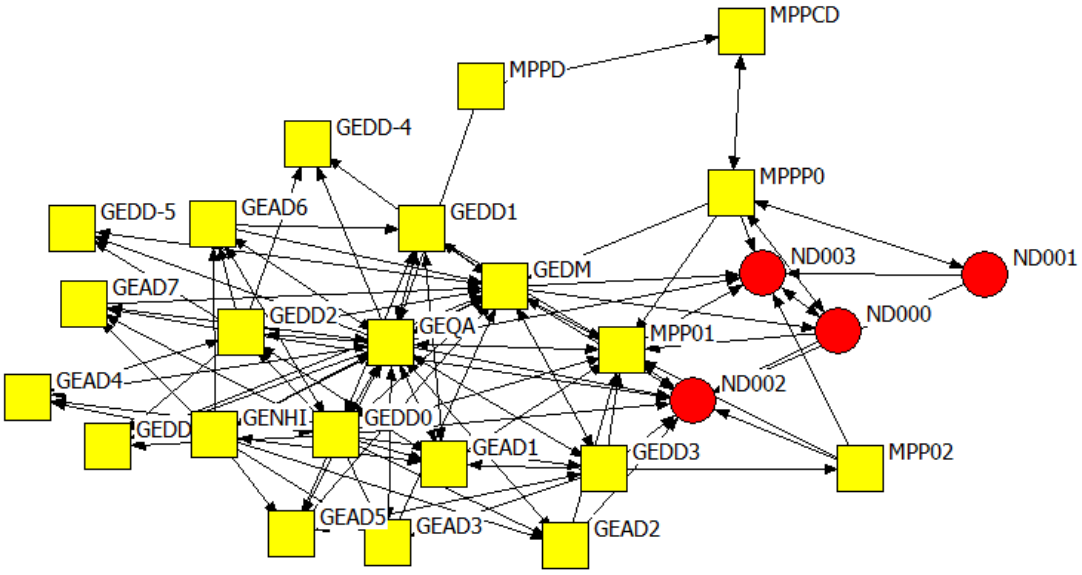


Figure 10 MP Network: Receiving information

Legend:			
	Color and shape of the nodes	= **National**	= **Provincial**
	Nodes label	ND= A label starting with ND refers to national actors	MP & GE = A label starting with MP or GE refers to provincial actors

5.3.2 Network cohesion within each government sphere

National sphere

Table 12 shows the density within the national sphere. The interaction with the highest density was for seeking advice (66.7%) amongst each other and the lowest density was for sharing (providing) information with other actors within the national sphere (16.7%).

Table 12 Network cohesion within National sphere

Network cohesion within National sphere						
National	**Seeking advice**	**Providing advice**	**Giving support**	**Receiving support**	**Receiving information**	**Providing information**
d (%)	66.7	50.0	41.7	25.0	21.7	16.7

Provincial sphere

Table 13 shows the density scores for consultation (advice), support, and sharing information for each of the selected provinces. Both provinces had low densities for seeking advice within the provincial sphere, d=18.2% in GP and 25.1% in MP. GP had moderate density for providing support within the provincial sphere (d= 40.2%). Both provinces had low densities for receiving information from policy actors within the provincial sphere, d= 12.1% in GP and 22.6% in MP.

Table 13 Network cohesion within the Provincial sphere

Network cohesion within the Provincial Sphere						
	Seeking advice	**Providing advice**	**Giving support**	**Receiving support**	**Receiving information**	**Providing information**
GP d (%)	18.2	19.7	40.2	18.9	12.1	15.2
MP d (%)	25.1	29.2	29.0	28.4	22.6	29.0

GP = Gauteng Province; MP=Mpumalanga Province

Local government

Within the local government sphere in the City of Tshwane in GP, the actors had moderate interaction for seeking advice (d=33.3%) and for receiving support from each other (d=46.7%), but had low densities (d= 20.0%) for sharing information amongst themselves (Table 14).

Table 14 Network cohesion within Local government sphere

Network cohesion within local government sphere						
LG	**Seeking advice**	**Providing advice**	**Giving support**	**Receiving support**	**Receiving information**	**Giving information**
d (%)	33.3	36.7	43.3	46.7	20.0	16.7

LG =Local Government

5.3.3 Cohesion between spheres

Table 15 shows the density scores for various bilateral interactions. For seeking advice, the relationships between national and provincial sphere had low densities of 2.1% in GP and 12.5% in MP. For giving support, the density was 18.8% in GP and 16.1% in MP. For receiving information, the densities were 2.1% for GP and 4.5% for MP.

National and local government spheres

There were no ties for national sphere seeking advice from local government. The network for giving support had a density of 16.7%, and for giving information had a density of 4.2%.

Provincial and local government spheres

The network density on seeking advice was 5.6%, on giving support was 9.7%, and providing information was 4.2%.

Table 15 Network cohesion between government spheres

Network cohesion between spheres of government												
	Seeking advice		**Providing advice**		**Giving support**		**Receiving support**		**Receiving information**		**Providing information**	
	GP	**MP**	**GP**	**MP**	**GP**	**MP**	**GP**	**MP**	**GP**	**MP**	**GP**	**MP**
	d (%)		d (%)		d (%)		d (%)		d (%)		d (%)	
N to P	2.1	12.5	14.6	19.3	18.8	16.1	2.1	14.9	2.1	4.5	14.6	17.2
N to LG	0.0		28.3		16.7		0.0		0.0		4.2	
P to N	27.1	18.2	6.3	5.7	4.2	41.7	25.0	4.5	16.7	18.2	8.3	5.0
P to LG	5.6		5.6		9.7		5.6		1.4		9.7	
LG to N	16.7		8.3		8.3		16.7		12.5		0.0	
LG to P	11.1		5.6		4.2		9.7		9.7		5.6	

GP=Gauteng Province; MP =Mpumalanga Province; N= National, P=Provincial; LG= Local government

5.4 Discussion

Drawing on Provan and Milward's theory of the multi-dimensional nature of networks [169], a key objective of this study was to examine the cohesion of IGR, specifically consultation (seeking or giving advice), support and information sharing in the implementation of the ICRM programme. Cohesion of IGR is important when implementing a national policy (in this case the ICRM programme) because it enhances the sharing of values, knowledge, and resources [68, 169, 256]. Cohesive IGR contributes to the achievement of common goals [169]. Network cohesion also enables collaboration among policy actors, resulting in their commitment to implementation, a degree of uniformity in implementation, and long-term sustainability [245, 256, 257].

In both GP and MP, the SNA revealed that there was poor consultation in the ICRM programme implementation, shown by the low densities of seeking advice (GP=15.6%; MP=23.4%) and providing advice (GP=14.1%; MP=25.1%). Within the NDoH, the density for seeking advice was 66.7%, and 50.0% for providing advice to each other. This means that national policy actors primarily consulted with one another, rather than with the provincial actors, who are the main implementers of the ICRM programme. This insufficient consultation is illustrated by the low density of 2.1% for the NDoH seeking advice from GP and slightly higher density of 12.5% for the NDoH seeking advice from MP (Table 15). The slight difference in densities could be due to the geographical location, as MP is further located, and is a more rural province. Although the density scores for the NDoH providing advice to GP and MP were slightly higher at 14.6% and 19.3% respectively, the apparent lack of consultation is concerning. In GP, this pattern of insufficient consultation was repeated, with a low density of 5.6% for GP seeking advice from local government and 5.6% for providing advice to local government. This is despite the fact that local government continues to provide PHC services in GP, and the City of Tshwane municipality (local government) had 24 PHC facilities involved in the implementation of the ICRM programme. The City of Tshwane reported on the progress of ICRM programme in their integrated development plan [258]. Hence, consultation with local government was critical in the implementation of the ICRM programme.

Similarly, the densities for support in all networks ranged from low to moderate, with the highest densities in the local government sphere (giving support d=43.3%; receiving support d=46.7%). The SNA shows that there was little reported support from one sphere of government to another. The interactions between national and provincial government spheres for support had maximum densities of 18.8 % in GP and 16.1% in MP. The density for support interactions between the Gauteng health department and the City of Tshwane health department was only 9.7%. Inadequate support had a negative impact at PHC facility level, most acutely experienced by PHC facility managers who incurred penalties for non-compliance with prescribed standards that were the responsibility of the national and/or the provincial departments of health [244].

Information sharing in the implementation of the ICRM programme was poor, illustrated by the low densities for receiving information and for providing information in all IGR networks, and within government spheres. The SNA measured low densities of 14.6% in GP and 17.2% in MP for receiving information from the NDoH, and a density of 4.2% for the local government receiving information from the NDoH.

The overall picture revealed by the low densities on consultation, support and information sharing suggest non-cohesive or fragmented IGR. These weak IGR could partly explain the difficulties experienced in the sustainability of the ICRM programme. In the 2018/19 financial year, 89% of clinics in GP and 46% in MP achieved ideal clinic status [259]. At face value, GP is the best performing province in achieving ideal clinic status [259]. However, this is a decrease from 93% of GP clinics with ideal clinic status, achieved in 2015/16 [55]. The NDoH expressed concern about provincial variations in achieving ideal clinic status, and about the reversal of progress with the many clinics that have lost ideal status since 2015/16 [259]. However, in the proposed NDoH recommendations for dealing with these problems, there is little attention paid to the policy implementation processes of consultation, support, and information sharing. This would need to be addressed to ensure long-term sustainability of the ICRM programme.

Other South African studies have also highlighted the negative influence of insufficient consultation, poor communication, resource constraints and sub-optimal monitoring and evaluation on policy implementation [209, 213, 260]

Although the contexts and methodologies differ from the SNA used in this study, studies in other countries of different levels of development have also highlighted the negative consequences of non-cohesive networks. A USA study reported that conflicts between federal and state governments created difficulties in adopting and implementing proposed reforms of the Medicaid program, which provide health insurance coverage for low income people [136]. This resulted in discrepancies in service coverage across the various states [136]. Another study in the USA highlighted the contestations between the federal and state governments in the implementation of Affordable Care Act because of lack of consultation, despite the federal government's provision of financial support and incentives for implementation [261]. In Italy, a study found that the challenges of inter-governmental, multilevel relationships combined with policy fragmentation and fiscal constraints contributed to the failed implementation of long-term care policies [137].

Studies in other African countries have also highlighted the problems of weak IGR. A Ghana study that examined the implementation of an eye care programme in 12 districts across different government levels found that actors at sub-district level experienced difficulties in distributing resources, and they felt excluded from receiving information on progress [262]. In Nigeria, a qualitative study on the management of IGR highlighted weak communication and poor relationships, characterised by competition, conflict and confrontation, which in turn influenced goal achievement [113]. In Kenya, the implementation of the free maternity service was rushed with inadequate consultation, which reported inconsistencies in implementation [263].

In this study, the SNA measured high centralisation values of 0.5-0.8 in GP, and 0.5-0.7 in MP. This means that the ICRM programme implementation revolved around a few individuals in each province, rather than a more distributed leadership of the programme. Provan and Milward's

theory suggests that the network of interaction should be centralised [169] in order to enhance coordination for goal achievement [169]. However, centralised networks have disadvantages of undue reliance on certain individuals, potential manipulation of policy design, the unequal distribution or withholding of network resources, and information, and inconsistencies in implementation [70]. The high degree of centralisation, combined with a top down approach from the NDoH posed potential risks for the ICRM programme implementation. These risks include lack of buy-in from front-line implementers, lack of commitment, and lack of sustainability. Various studies found that these risks played out in different country contexts, with negative consequences for policy implementation [135, 255, 264]. In Brazil, a study on inter-governmental health policy decisions found that the Ministry of Health dominated decisions in an inter-governmental forum on health, leading to less considerations of implementation demands raised by the municipal and state government, and various policy implementation failures [135]. In Nigeria, a 2012 study that used SNA to examine the implementation of the vaccination programme, found a disjuncture between the federal, centralised network structure and the implementers who were at the periphery, and that exclusion of implementers in decision-making process discouraged their sense of ownership of the programme. [255]. Similarly, a SNA study on Hepatitis C policymaking in Iran found that domination of decision-making by national level policymakers coupled with poor stakeholder involvement hindered implementing actors' cooperation in the implementation process [264].

The study findings have implications for IGR in South Africa's ongoing health reforms. This is because health services are a concurrent responsibility of both national and provincial departments of health [32]. Firstly, the NDoH should take the lead in improving IGR in the implementation of the ICRM programme. This could be done through optimal utilisation of existing forums, such as the National Health Council (NHC), and/or its technical committees. Existing forums could be used for consultation, information sharing, and building capacity of relevant policy actors.

Secondly, the NDoH should guide the development of a clear implementation plan from the bottom-up. This will ensure that all relevant stakeholders are involved, that their concerns are taken

into account, as well as the contextual factors that influence ICRM programme implementation. The implementation plan should include strategies for capacity building, communication, mechanisms for informing and engaging with stakeholders, and indicators for monitoring and evaluation.

This study was one of the first studies that used SNA to measure the cohesion of the IGR network in the implementation of a PHC reform. However, the cross-sectional nature of the study provides a snapshot of the experiences of study participants during 2017, when the data were collected. The measurement of densities on consultation (advice), support and information sharing might be different when measured in 2020. Nonetheless, the 2019 report on the ICRM programme [259] suggests that the findings of the study on the weak IGR, and low densities remain relevant, and should be taken into account in improving ICRM programme implementation. Hitherto, ICRM programme implementation has focused mostly on addressing staff, infrastructure and financial constraints [259]. However, Provan and Milward' theory underscores the multiple interactions that comprise full networks and the implementation of public policy through networks of [health] service providers, who need to cooperate with one another [265]. Hence, building IGR in consultation, support and information sharing, must be a critical element of implementation.

The study participants were self-reporting which could have introduced social desirability bias of either over-or- under-reporting. This was mitigated by leaving the SNA questions to the final section of the interview, after the principal researcher established rapport with the individuals. In addition, there was no intrinsic incentive to misrepresent the relationships, as all individuals are in senior government positions. The potential limitation of recall bias was also minimised by using the network roster which listed all possible actors [69].

The study combined SNA with Provan and Milward's network theory to examine the overall network cohesion and cohesion within and between the spheres of government. The study findings could provide the baseline for similar studies that measure densities and centralisation of IGR in the implementation of health sector reforms, whether in South Africa, or other LMIC settings.

5.5 Conclusion

The study has generated new knowledge on IGR in the implementation of the ICRM programme in two South African provinces. The non-cohesive relationships amongst policy actors in the national, provincial and local government spheres could impede the implementation of the ICRM programme, unless addressed in tandem with the resource and structural constraints. Cohesive IGR enhance collaboration and also provide benefits, such as leveraging resources, mutual learning, capacity building, shared risks, opportunity for innovation, increased responsiveness and increasing accountability to communities [266-268]. The South African Constitution enables cooperative governance and strong IGR. Health policy implementation requires the various actors to consult with one another, share information and resources, and provide mutual support.

5.6 Author contributions

Immaculate Sabelile Muthathi and Laetitia C. Rispel, conceptualised the study

Immaculate Sabelile Muthathi & Mary Kawonga analysed the data

Immaculate Sabelile Muthathi, wrote the first draft, Laetitia C. Rispel supervised the writing of the manuscript, with inputs from Mary Kawonga.

All three authors, reviewed and edited the manuscript.

CHAPTER 6: DECISION SPACE AND PARTICIPATION OF PRIMARY HEALTH CARE FACILITY MANAGERS IN THE IDEAL CLINIC REALISATION AND MAINTENANCE PROGRAMME [b]

6.1 Introduction and Background

Health sector reforms are at the forefront of the drive to achieve universal health coverage (UHC) [269]. Although influenced by country setting and context, the drivers of UHC include demographic and epidemiological transitions, inequalities, increased population demands for access to quality care, technological and scientific developments, and the promise of poverty reduction and economic growth [20]. The primary health care (PHC) approach, reiterated in the Astana Declaration, is seen as the foundation of these health sector reforms [6].

In South Africa, notwithstanding significant progress in the 25 years of democracy, inequities in the access to, and quality of, health care remain acute [47]. The fragmentation of health financing between the public and private health sectors is a major cause of these inequities [79]. Consequently, the introduction of a national health insurance (NHI) system is the most prominent health sector reform planned to achieve UHC in the country [44]. The NHI proposals, originally contained in a government Green Paper [13], is a health financing system that is designed to pool funds to provide access to quality, affordable health services for all South Africans irrespective of their socio-economic status [44]. In concert with global developments, PHC is the foundation of a transformed health system [44].

The NDoH commenced implementation of the NHI in 11 pilot districts, and in three phases, each phase lasting a period of five years [12]. The first phase of the NHI programme, which commenced in 2012, did not involve new health financing arrangements, but piloted various interventions

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aimed at strengthening the PHC level [270]. One of these interventions piloted was the Ideal Clinic Realisation and Maintenance (ICRM) programme, a PHC quality improvement programme designed to "lay a strong foundation for the implementation of National Health Insurance" [53]:111. The factors that influenced the ICRM programme include the results of the 2011 health facility audit that found sub-optimal infrastructure and quality at PHC facilities, and failure to meet the National Core Standards during the inspections conducted by the Office of Health Standards Compliance [14, 218]. In light of the planned NHI implementation, the PHC level of the health became a presidential priority for intervention [271].

In this article, we draw on policy implementation theory [73] and Bossert's notion of decision space [60] to analyse the implementation of the ICRM programme in PHC facilities in two South African provinces. We bring together three strands at methodological and conceptual levels. Firstly, we use the ICRM programme as a case study of national health sector reforms and their implementation at PHC facility level. Secondly, we explore the participation of front-line PHC managers in the design of such national reforms. Lastly, we examine the decision space of PHC facility managers regarding the ten vital (life and death) elements of the ICRM programme, all reportedly under their control [220] .

We frame the study by providing a brief overview of Bossert's concept of decision space. We highlight why this concept is both novel and relevant for the study among PHC facility managers. An overview of the ICRM programme, the roles and responsibilities of PHC facility managers, and why their participation is central to the implementation of the ICRM programme follow this overview. We conclude the introduction with a brief summary of previous studies that used the concept of decision space.

6.1.1 The concept of decision space

Bossert conceptualised the notion of decision space as an approach to analysing the effectiveness of decentralisation in developing countries [60]. Decision space is defined as the degree of authority based on formal or informally defined rules, given to local authorities, by a central authority [60]. Formally defined rules are written rules based on the law, informally defined rules are those which local authorities use at their own discretion for decision-making [60]. The framework of decision space identifies the functions of health systems- governance, access, human resources, health service organisation and/or financing- for which local authorities are permitted some degree of authority in decision-making. Bossert's framework provides three categories of decision space, namely *narrow* (little local choice), *moderate* (a range of choice but limited by central rules) or *wide* (little constraint on local choice) [272]: 443.

In this study, we used the horizontal axis of Bossert's decision space of narrow, moderate and wide to measure the decision space of PHC facility managers over the ten vital elements of the ICRM programme. These elements focus on PHC facility managers' functional areas of infection control and prevention, availability of medicine and resuscitation equipment, and safe storage of medicines [220]. The NDoH (the central authority) defines the responsibilities (degree of authority) of PHC facility managers (the delegated 'authority') in the ICRM manual [220]. Hence, in this study we apply Bossert's concept of decision space in a novel way to front-line PHC facility managers.

6.1.2 Ideal Clinic Realisation and Maintenance Programme

An ideal clinic is defined as a clinic with "good infrastructure, adequate staff, adequate medicine and supplies, good administrative processes, with sufficient adequate bulk supplies, it uses applicable clinical policies, protocols and guidelines, and it harnesses partner and stakeholder support" [65]:11. The ICRM programme entails quarterly assessments and grading of PHC facilities, using the quality improvement tools designed by the NDoH [53]. The assessments are followed by an improvement plan and support to all PHC facilities until they meet the ICRM programme requirements, called *ideal clinic status* [53]. The assessment tools contain 206 items

or criteria, categorised as follows: 110 important, 68 essential, and 10 vital items [220]. Important items are those that affect the quality of the environment in which healthcare is delivered and essential items are elements that indirectly affect the quality of clinical care rendered to the patients [220]. Vital items are those requiring immediate and full correction, and if not in place could mean the difference between life and death [220]. Each PHC facility is required to attain at least 90% of the 10 vital elements in addition to the essential and important items, in order for it be declared an "ideal clinic" [220].

6.1.3 Responsibilities of PHC facility managers

In South Africa, PHC facility managers are the persons-in-charge of PHC clinics. These clinics range in size from a one-room, two staff facilities in rural areas, to more than ten rooms, with a staff complement of around ten in urban areas [273]. The clinics are open for 8 or 12 hours each day, from Monday to Friday, and provide ambulatory care and a wide range of preventive, promotive, and curative services [273].

The duties of PHC facility managers include: overall management of the facility, including of financial and human resources (professional nurses, clerks and cleaners); professional development of staff, the provision of holistic comprehensive ambulatory care to patients; administrative duties, including the collection of routine information; and quality assurance and compliance with PHC standards [54, 274].

In this study, we focus on PHC facility managers' functions regarding the vital elements, which cover the following four aspects: infection control and prevention, safe storage of medicines, availability of essential medicines; and availability of medical equipment [220]. The responsibilities of the facility managers in relation to these four components are shown in (Table 16).

Table 16 Responsibilities of PHC facility managers on vital elements

Responsibilities of PHC facility managers on vital elements	
Vital category	**Brief description**
Infection control and prevention	• Ensure safe disposal of sharps by ordering enough stock of impenetrable, tamperproof containers for disposal of sharps • Train staff on national policy of infection control and prevention • Delegate a person to observe these tasks on day-to-day basis.
Availability and safe storage of good quality essential medicines	• Monitor stock availability • Determine the re-order levels of medical and surgical supplies • Order replenishment to maintain minimum and maximum stock • Obtain approval from sub-district managers for submission to the district pharmacy • If the order is not delivered on scheduled time, follow up with district pharmacy • Ensure all medicines are stored at safe temperature • Delegate personnel daily to attend to this deliverable
Ensure availability of medical equipment	• Monitor availability of essential equipment and required furniture • Ensure availability of resuscitation equipment on emergency trolley • Replenish emergency trolley equipment daily (where relevant) • Order the equipment using the national standardised catalogue for equipment • Assign a professional nurse to ensure on a daily basis that the emergency equipment are available, clean and functional

Source: Adapted from ICRM programme manual **[220]**.

The procedures for ordering of medical and non-medical supplies, supply chain management delegations, the availability of support for facility managers to procure, and on spending delegations at facility level vary greatly across the country [271]. In general, PHC facility managers have to follow multiple procedures to place their orders. On average approval procedures from PHC facility to district level could take 39 days provided that the items cost less than R500 000 (US$33 300, 1US$=R15), as this is the delegation at district level in most provinces [271]. In most provinces, supply chain management delegations rest with the district, with none at sub-district level. Some PHC facilities are allowed discretionary spending for items less than R2 000 (US$133), but they rely mostly on supply chain management support at district level [271].

The managerial function of equipment ordering requires the availability of a facility budget. According to the ICRM programme manual, each district should ensure a dedicated PHC facility budget, and involvement of facility managers in budget discussions at district level, to enable managers to influence the facility's budget allocation [220]. The district should allocate financial resources in line with the needs of the individual PHC facility [220]. In turn, the facility managers should develop control measures for rational budget utilisation and expenditure, and query any financial discrepancies with the district [220].

Hence, the PHC facility managers are the main implementers of the ICRM programme, with support from the district, provincial and national departments of health [220]. Scholars have suggested that the PHC facility managers hold one of the most important positions in the health system, because they have to interpret national policies, and steer implementation of health reforms at PHC level, for the benefit of patients, communities and staff [43, 275, 276]. However, a precondition for successful implementation of national health policies and/or reforms is their involvement and participation in such initiatives, and the degree of choice or decision space that they exercise in the implementation of national health policies or reforms.

We defined participation as taking part in ICRM conceptualisation (i.e. the idea and design) [277] and implementation (putting into practice the plan) of the ICRM programme. This is because policy implementers are "street level bureaucrats", whose capacity, interpretation, motives, power and discretion influence the successful implementation of the policy or achievement of policy goals [146, 170, 278, 279]. This successful implementation in turn is influenced by the involvement of implementers earlier on in the conceptualisation of the policy [278], in this case the ICRM programme.

6.1.4 Studies on decision space

The decision space approach has been applied in numerous studies in low- and middle-income country settings, focusing on health systems governance, access, human resources, health service organisation and/or financing [118, 160, 174]. The majority of these studies have found the centralisation of human resource and financial management decisions, with consequent narrow decision space of district health managers [36, 165, 174, 280]. In contrast, Alonso-Garbayo examined district health managers' use of decision space in human resource management in Uganda, and found that these managers made decisions beyond their legal authority, hence exercised wide decision space [161].

Several studies have focused on the factors that influence decision space, with consensus that capacity building is critical to improving the exercise of decision space [159, 160, 281]. In Tanzania, Kigume and Maluka explored the influence of institutional capacities in decision space, and found that limited capacity in financial resources affected both the ability and exercise of decision space [163]. Roman et al found that the availability of resources, management capacities and accountability mechanisms positively influence the exercise of decision space [282].

In South Africa, the health care system remains centralised, with narrow decision space over finance and human resources at district level [36]. District managers have limited influence over the allocated budget, and no control over human resource planning and appointments [166].

Notwithstanding the substantial body of literature on decision space in the context of health sector decentralisation, there is dearth of studies on the decision space of front-line health facility managers. Since PHC facility managers are central to the successful implementation of the ICRM programme, this study aimed to explore their degree of authority (decision space) and their participation in conceptualising and implementing the ICRM programme.

6.2 Methods

6.2.1 Application of Bossert's decision space concept

We used the horizontal axis of Bossert's decision space framework to measure decision space of PHC facility managers on the vital elements of the ICRM programme, that are included in their responsibilities. We defined narrow decision space as little control, moderate as partial control and wide as full control (

Table 17).

Application of Bossert's framework				
Functional Areas of PHC facility managers	**10 Vital elements of the ICRM programme indicator**	**Narrow (little control)**	**Moderate (partial control)**	**Wide (full control)**
Infection Prevention and Control	Sharps containers are disposed when they reach limit mark			
	Sharps are disposed in impenetrable, tamperproof containers			
	There is one functional wall mounted room thermometer in the medicine room			
Ensuring availability and Safe storage of Medicine	Medicine room temperature is recorded daily			
	Medicine room temperature is kept within safe limits			
	Cold chain procedure for vaccines is maintained			
	90% of medicines on tracer medicine list is available			
Ensuring availability of Medical equipment	Functional basic resuscitation equipment is available			
	Emergency trolley is restored daily or after use			
	Oxygen cylinder with a pressure gauge is available			

Source: Adapted from ICRM Manual, [220] and Bossert's framework [60].

Table 17 Application of Bossert's framework

6.2.2 Study setting

We were interested in the implementation of the ICRM programme in the NHI pilot sites. Hence, the study setting was the two NHI pilot districts located in GP and MP of South Africa. The criteria for the selection of these two provinces were: NHI pilot district, geographical proximity, budgetary and logistical considerations, including geographical variations, as GP is an urban province, whereas MP is predominantly rural [176]. In GP, the NHI pilot district was the City of Tshwane and in MP it was Gert Sibande district. Table 18 compares key features of the two districts.

Table 18 Description of the selected districts

Description of the selected districts		
	City of Tshwane district	**Gert Sibande district**
Population size	± 3,3 million residents	±1,1 million residents
Health care centres	64 day clinics, 10 community health centres	63 day clinics, 15 community health centres
Compliance to ICRM programme	89% of PHC facilities complied with the requirements in 2017	72% of PHC facilities complied with requirements in 2017
Reasons for failure to comply	Shortage of essential medical equipment, lack of cleaning material, shortage of staff	Shortage of essential medical equipment, lack of cleaning material, shortage of staff and poor infrastructure
Supply chain management delegations	Supply chain managed at district office	Supply chain managed at district office and at hospitals which are linked to PHC facilities per sub-district

Sources: [176-178, 195, 215, 283]

6.2.3 Study design

We conducted a cross sectional survey among PHC facility managers to analyse their decision space and participation in the ICRM programme.

6.2.4 Study population and sampling

The population of interest was all the PHC facility managers in charge of day clinics (n=127; GP=64; MP=63), defined as those PHC facilities that were open for eight or 12 hours each day, and that were part of the ICRM programme. All 127 PHC facility managers were invited to participate in the study.

PHC facility managers in-charge of community health centres, mobile and satellite clinics were excluded from the study, because of the variation in the community health centres, the differences in resource allocation and functioning between clinics and community health centres, and the differences in service delivery, and populations served. The ICRM programme is not implemented in mobile and satellite clinics.

6.2.5 Data collection instrument

We developed a self-administered questionnaire, to evaluate PHC facility managers' participation in the conceptualisation and implementation phases of the ICRM programme, as well as their decision space on the 10 vital elements of the ICRM programme.

The questionnaire consisted of four sections: 11 questions on background and demographic characteristics, 9 questions on participation in the conceptualisation and implementation of the ICRM programme, 10 questions on decision space in the ideal clinic implementation. The section on background and demographic characteristics collected information on age, gender, qualifications, years of experience and involvement in training. The section on participation consisted of a series of statements on participation in planning, leadership, negotiation for resources, and sharing of knowledge about the ICRM programme. A seven-point Likert scale was used to measure PHC managers' participation, where 1 indicated strongly disagree and 7 indicated

strongly agree. The section on PHC managers' decision space contained ten statements derived from the ten vital elements of the ICRM programme manual, that are under the control of the PHC facility managers These ten statements were measured using a three-point scale based on Bossert's framework for mapping decision space, namely 1 (narrow); 2 (moderate) and 3 (wide) [60]. The final section consisted of an optional open-ended question to allow PHC facility managers to comment on any aspect related to their participation or decision space related to the ICRM programme.

Prior to implementation, we pre-tested the tool with three PHC facility managers from outside the study districts and no adjustments were necessary. These responses were excluded from the main study.

6.2.6 Data collection

The completed questionnaire was uploaded into REDCap (Research Electronic Data Capture) a secure, web-based application designed to support data capture for research studies [183] and hosted at the University of the Witwatersrand. We conducted the study between October 2017 and February 2018. We contacted the PHC facility managers to enlist their participation and to plan the date for fieldwork. On the survey day, we held an introductory meeting with each of the PHC facility managers to explain the study and to request their voluntary participation.

Following informed consent, each facility manager completed the self-administered questionnaire (SAQ) on a tablet, with assistance if necessary. The tablet allowed for text input by the facility manager or digital recording of additional comments, which were optional.

6.2.7 Data management and analysis

Quantitative data

The quantitative data were extracted from REDCap and imported into STATA® 15 for analysis. We used descriptive statistics to analyse the socio-demographic data.

Participation

We analysed the participation of the PHC facility managers in conceptualising and implementing the ICRM programme. We calculated frequencies and percentages for each of the seven items in the participation category. The overall mean score for participation was calculated by averaging the participants' mean scores for all the items within the participation category.

Decision space

We analysed decision space of PHC facility managers on the 10 vital elements of the ICRM programme. The frequency distribution of decision space scores on narrow, moderate and wide were computed. The overall mean score for decision space was computed by averaging the participants' mean scores for all the items within the decision space category.

Using a one-way ANOVA, a comparison of overall mean score for decision space by socio-demographic characteristics was done, to determine which background demographic characteristics were associated with decision space in the implementation of the ICRM programme. After initially including all demographic characteristics in the model, we did an exploratory analysis to determine which variables were the best predictors of decision space and participation using a backward elimination algorithm [284]. All tests were conducted at 5% significant levels.

Qualitative data

Responses to the open-ended question were either transcribed verbatim, or exported from the REDCap file into a word document. All typed comments corresponded to the unique identifiers used for the survey.

The qualitative comments were analysed using thematic analysis [180]. Three researchers (including the supervisor) analysed the raw data of eight participants separately. We read and reread transcripts to familiarise ourselves with the data and to get a sense of the whole. We made notes of our earlier impression next to the text. We coded line by line through underlining each text segment that indicated participants' views, we used terms emerging from the data to label these text segments forming codes. After this phase, we had a coding meeting to discuss and agree on all the codes. The codes were grouped into common themes. Following agreement on codes, the principal researcher analysed the remaining interviews.

6.2.8 Reliability and validity

Quantitative data

During the design phase of the data collection tool, the questionnaire was distributed to a team of researchers, who reviewed it for face validity [185]. Pilot testing the tool also allowed for testing questions if they were understood by the participants. We calculated the Cronbach's alpha to establish internal consistency of all the items in each subscale of the questionnaire. Participation and decision space categories had Cronbach's alpha of 0.77 and 0.81 respectively, which indicate good internal consistency [186].

Qualitative data

We applied Lincoln and Guba's criteria of trustworthiness to examine rigour in this study [181]. The principal researcher listened repeatedly to the audio-recorded comments to ensure credibility of the findings, and read and reread the written comments ensuring prolonged engagement with the data. Two other researchers coded the data and inter-coder agreement was reached. Attaching the extracts of narratives in report writing to illustrate themes ensures confirmability. To ensure

dependability, all the raw data, and the coded data are archived to illustrate how we reached theme agreement.

6.2.9 Ethical considerations

The Human Research Ethics Committee (Medical) of the University of the Witwatersrand provided ethical approval for the study (M170661). We also obtained study approval from the provincial and local government health departments. We gave all participants a detailed information sheet, as well as a verbal explanation of the study, which included the voluntary nature of participation, confidentiality and anonymity.

All study participants provided written consent, via REDCap (Research Electronic Data Capture) a secure, web-based application designed to support data capture for research studies. All data collection forms had unique identifiers and the results of the study are presented in aggregate form.

6.3 Results

All PHC facility managers in GP and MP provinces agreed to participate in the study (n=127), hence a survey response rate of 100% was obtained (GP = 63, MP = 64). We begin by presenting the quantitative results, followed by the presentation of the qualitative findings.

6.3.1 Quantitative results

Socio-demographic characteristics

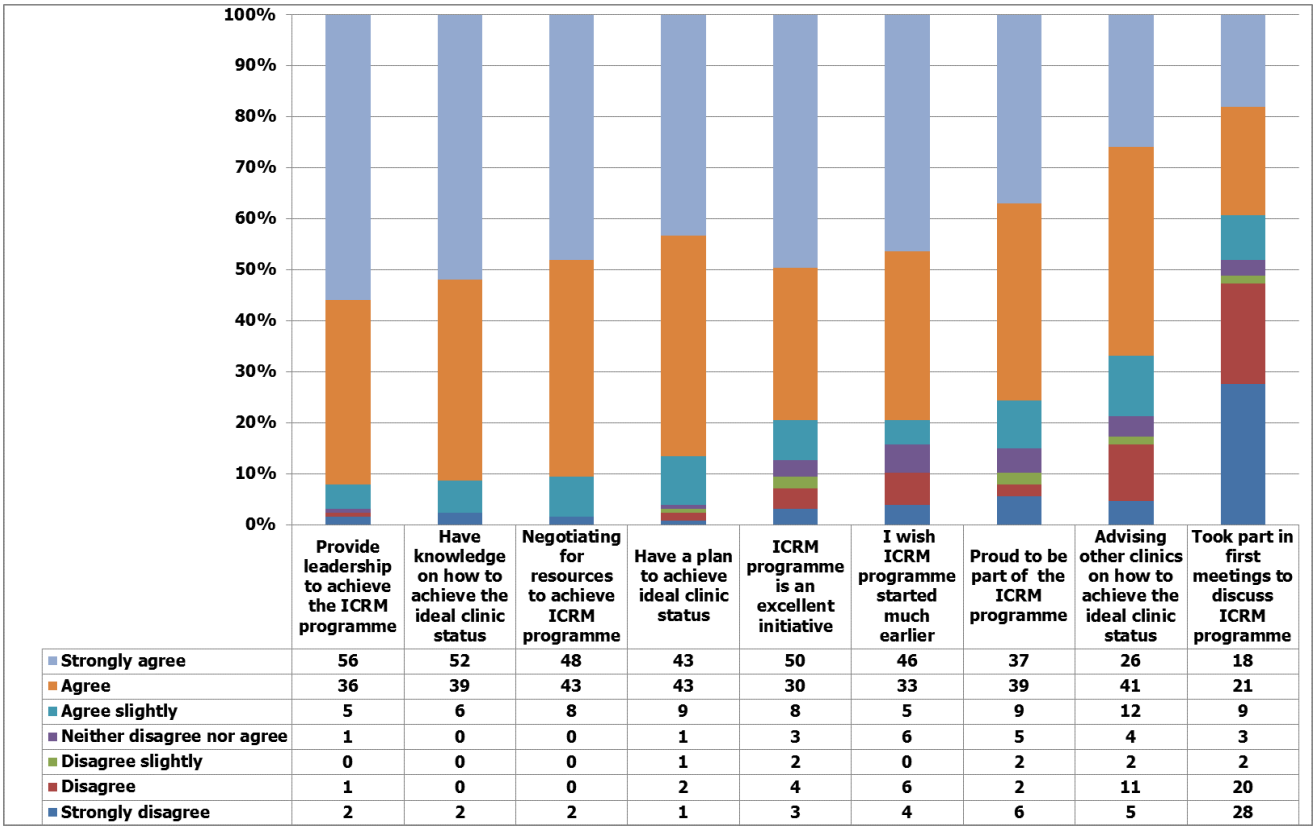
The majority of participants (90.55%, n=115) were female and their mean age in years was 51 (SD ± 7.2). Most of participants (86.61%, n=110) had received training on the ideal clinic, although almost half of the trained participants (43.64%, n = 48) only received one day of training (Table 19).

Table 19 Socio-demographic characteristics

Socio-demographic characteristics				
Characteristics		**GP n =63**	**MP n= 64**	**Total n=127**
Gender	Female n (%)	59 (93.65)	56 (87.50)	115 (90.55)
	Male n (%)	4 (6.35)	8 (12.50	12 (9.45)
Age	Mean age (SD)	53 (7.03)	49 (6.90)	51 (7.19)
Experience	Mean number of years as PN (SD)	28 (7.85)	22 (8.68)	25 (8.77)
	Mean number of years as FM (SD)	7 (5.59)	7 (6.94)	7 (6.29)
	Heard of NHI n (%)	63 (100.0)	63 (98.44)	126 (99.21)
	Permanent position n (%)	59 (93.65)	57 (89.06)	116 (91.30)
Training	Received training on ideal clinic n (%)	51 (80.95)	59 (92.19)	110 (86.61)
	Received one day training n (%)	37 (72,55)	11 (18.64)	48 (43.64)
	Received week long training n (%)	6 (11,76)	24 (40,68)	30 (27.27)
	Received other training n (%)	8 (15,69)	24 (40,68)	32 (29.09)

Participation in conceptualisation and implementation

An overall participation mean score of 5.77 (SD ± 0.90) was obtained regarding participation in the ICRM programme. Only 37% of participants (n=47) agreed strongly that they were proud to be part of the ICRM programme. Less than half of the participants (48%, n=61) agreed to have been part of the very first meetings to discuss the ICRM programme and 56% (n=71) agreed strongly that they provide leadership in the ICRM programme (Figure 11).



	Provide leadership to achieve the ICRM programme	Have knowledge on how to achieve the ideal clinic status	Negotiating for resources to achieve ICRM programme	Have a plan to achieve ideal clinic status	ICRM programme is an excellent initiative	I wish ICRM programme started much earlier	Proud to be part of the ICRM programme	Advising other clinics on how to achieve the ideal clinic status	Took part in first meetings to discuss ICRM programme
Strongly agree	56	52	48	43	50	46	37	26	18
Agree	36	39	43	43	30	33	39	41	21
Agree slightly	5	6	8	9	8	5	9	12	9
Neither disagree nor agree	1	0	0	1	3	6	5	4	3
Disagree slightly	0	0	0	1	2	0	2	2	2
Disagree	1	0	0	2	4	6	2	11	20
Strongly disagree	2	2	2	1	3	4	6	5	28

Figure 11 Frequency scores on items within the participation category

Decision space in ICRM programme

Table 20 shows the frequency distribution of scores on decision space items. The overall decision space mean score was 2.54 (SD ± 0.34). Although participants reported moderate to wide decision space for the majority of the vital items of the ICRM programme, 17% and 21% of participants reported narrow decision space on ensuring the availability of tracer medicines and basic resuscitation equipment respectively.

Table 20 Frequency scores on items within decision space category

Frequency scores on items within decision space category			
Vital elements	**Narrow n (%)**	**Moderate n (%)**	**Wide n (%)**
Sharps containers are disposed when they reach limit mark	7 (5.51)	37 (29.13)	83 (65.35)
Sharps are disposed in impenetrable, tamperproof containers	6 (4.72)	33 (25.98)	88 (69.29)
There is one functional wall mounted room thermometer in the medicine room	10 (7.87)	54 (42.52)	63 (49.61)
Medicine room temperature is recorded daily	1 (0.79)	17 (13.39)	109 (85.83)
Medicine room temperature is kept within safe limits	5 (3.94)	37 (29.13)	85 (66.93)
Cold chain procedure for vaccines is maintained	3 (2.36)	27 (21.26)	97 (76.38)
90% of medicines on tracer medicine list is available	21 (16.54)	64 (50.39)	42 (33.07)
Functional basic resuscitation equipment is available	27 (21.26)	66 (51.97)	34 (26.77)
Emergency trolley is restored daily or after use	3 (2.36)	31 (24.41)	93 (73.23)
Oxygen cylinder with a pressure gauge is available	2 (1.57)	45 (35.43)	80 (62.99)
The overall decision space mean score			**$\bar{x}$= 2, 54, SD =0.34,**

Predictors of decision space

Table 21 shows the results for the multiple regression analysis to determine the predictors of decision space. Managing a facility of choice, and training of at least one week were predictors of PHC managers' decision space (p = 0.001).

Table 21 Factors that influence decision space

Factors that influence decision space				
Multiple regression analysis				
Variable	Level	Co-eff.	95% CI	P-valve
Managing a facility of your choice	No Yes	0 (baseline) 0.30	0.12;0.49	0.001
Type of training received	1 day workshop Week long training Other trainings	0 (baseline) 0.18 0.26	0.03;0.33 0.12; 0.41	0.001

6.3.2 Qualitative results

The majority of participants (115/127=91%), chose to make additional comments. Although these overlap, three main themes emerged: lack of involvement; lack of control; and creating an illusion of compliance (Table 22).

Table 22 Emerging themes and subthemes

Emerging themes and subthemes	
Themes	**Subthemes**
Lack of involvement	Top down policy making
	Apparent ongoing exclusion of frontline managers in policy revisions
Lack of control	Budget
	Supply chain management Penalties on areas beyond facility manager's control
Creating illusion of compliance	Self-funding for clinic needs Borrowing of equipment

Lack of involvement

Most participants were of the opinion that policy-makers planned the ICRM programme without their involvement. They expressed concern about their lack of involvement in the conceptualisation and the planning of the ICRM programme, and pointed to their exclusion from providing inputs into the ICRM policy document.

> *Most of us as facility managers were not involved when the ideal clinic was conceptualised; it came to our attention as a government policy, which had to be, implemented.* (Participant 8, GP)

> *We were not involved at the planning as a result there has been number of versions, they keep changing because they [NDoH] have no understanding of how feasible are the planned versions.* (Participant 39, GP)

> *During the planning phase I was neither involved in providing inputs nor in decision-making. The ideal clinic initiative (ICRM programme) was just brought to us as it is*. (Participant 24, MP)

Lack of Control

The PHC clinic managers felt that they lacked control over the facility budget, staff and supply chain management. Some reported that they were penalised for areas beyond their control.

The PHC clinic managers lamented about the very limited budget, and that they were not allowed to shift funds within the allotted budget. They also did not have petty cash. Some PHC facility managers were of the opinion that there was a lack of transparency in the budget especially when the PHC facility budget was managed at hospital level.

> *We get limited budget, and we have no control over budget and there is no shifting of funds when they are allocated to certain items. We have no allocated petty cash.* (Participant 31, MP)

Most participants were of the opinion that they had no powers to influence procurement processes and turnaround times; and that their decision-making powers for provision of equipment for vital elements were limited since the delivery of orders depended on the supply chain department. Some reported problems in relation to supply chain management included supply delays, delivery of wrong orders after a very long waiting period, and lack of feedback on the progress of procurement. These delays led to managers on some occasions to buy items from their own pocket.

> *To achieve the requirements of the [ICRM] programme we rely on supply chain management. We don't have any power to purchase; we keep on doing request after request. That's the only thing that is killing us. And they [supply chain department] don't come back to you to say you will not get this because of this reason. You will see [the reason] after a year when they return the request form.* (Participant 45, GP)

> *You order equipment, but it is not delivered on time, or the equipment required in terms of the ideal clinic, it's not the one delivered.* (Participant 25, GP)

Most participants were of the opinion that they were not equipped with the necessary resources by the national or relevant provincial department of health. Some participants were of the opinion that there was great urgency for the facilities to comply with the requirements of the ICRM programme but less urgency for those in authority to deliver the resources to support the programme. This constrained facility managers' effectiveness in their functional areas. PHC facility managers highlighted times when they were penalised for areas beyond their control, and were expected to deliver without resources from national and/or provincial level.

> *There are lots of policies that we are penalised for and we are not responsible for making them available, like the policy on referral, or the memorandum of understanding (MOU) between Department of Health and South African Police Services. MOUs are supposed to be done by Department of Health. There are lots of things that at ground level we don't have and it is not our fault, but that of those at higher levels.* (Participant 25, MP)

Creating an illusion of compliance

Most respondents were of the opinion that achieving ”ideal clinic status” was strenuous, frustrating and a burden. The pressure and urgency to be compliant led at times to “faked” compliance. The majority of PHC facility managers reported that on some occasions they had no option but to buy items out of pocket or borrow equipment required for the ICRM programme, or to improvise to have the required item. Some participants who had improvised using laminated material to provide for signage in the PHC facility, verbalised that they regretted the improvisation as this led to lack of proper signage in the facility by the responsible department.

> *When you order the items are out of stock, or they give you two items that are about to expire, when they expire you have to re-order, or have to borrow and paint a good picture that things are fine during assessments, when assessment passes, you have to take those borrowed items back.* (Participant 18, GP)

> *We don't have medical equipment; sometimes you have to buy from your own personal funds.* (Participant 56, MP)

6.4 Discussion

This is one of the first studies in South Africa that used the notion of decision space to assess the degree of choice that PHC facility managers exercise in the implementation of national health policies. The study found that PHC facility managers reported lack of involvement in the conceptualisation of the ICRM programme, high levels of participation in implementation, and narrow to moderate decision space on the critical areas of essential medicines and resuscitation equipment. The qualitative data supported the survey data on these managers’ lack of involvement, as well as the unintended negative consequences of striving for “ideal clinic status”, namely that of creating the illusion of compliance with the ICRM standards.

There is evidence that the involvement of frontline staff in policy development or health reforms increases ownership, co-responsibility and successful policy implementation [62, 145-147, 223]. In contrast, excluding frontline staff or managers could lead to role confusion, limited capacity, and lack of or unsuccessful policy implementation [150, 151]. Notwithstanding the importance of PHC facility managers to the implementation of health reforms in South Africa, fewer than half (48%) reported that they took part in the conceptualisation of the ICRM programme. Their lack of involvement in ICRM conceptualisation also emerged as a theme from the qualitative data. Studies in South Africa and in other countries, albeit with different research questions, have also found the lack of front-line managers in policy conceptualisation. In Burundi the policy decision on the abolition of user fees was made without involving the frontline managers, who felt that the policy objectives were neither clear nor covering those who needed to benefit [154]. In Ireland, frontline managers also felt that they were not consulted on key healthcare reforms [285]. A 2014 South African study that examined management dynamics at PHC clinics in Gauteng and Free State provinces found that only one third of PHC nursing managers were aware of the PHC re-engineering reforms [286]. Ditlopo et al found that nurses' participation in policy-making is both contested and complex, with differences in the awareness of policies examined between nursing leadership and front line nurses [213]. Scott et al, also reported exclusion of frontline managers on decisions regarding an equity-promoting staff allocation policy in South Africa, and that such exclusion resulted into low staff morale [287].

In our study, the majority of PHC facility managers reported high levels of agreement on the questions that focused on participation in the implementation of the ICRM programme. This could reflect social desirability bias, because they had no choice in implementing the programme, as it is part of their responsibility as PHC clinic managers.

Bossert's approach on decision space offered the opportunity to assess the degree of authority that these PHC facility managers in the two provinces exercised in the implementation of the ICRM programme. Although they reported moderate to wide decision space for the majority of the vital elements of the ICRM criteria, 17% of them indicated that they had narrow decision space on the availability of essential medicines, while 21% of participants indicated that they had narrow

decision space on the availability of resuscitation equipment. In response to the open-ended question, many of these PHC facility managers voiced their frustrations over the lack of control over the budget and supply chain management, which constrained their ability to ensure the availability of medicines and basic resuscitation equipment in these facilities.

Another study that focused on PHC nursing managers in South Africa found that centralised budgets and shortages of medicines in PHC facilities influenced the practice environment negatively, which in turn distressed these managers greatly [288]. A 2015 survey that estimated the extent of stock-outs of antiretroviral and TB medicines in public health facilities across South Africa found that 20% of the surveyed facilities reported a stock-out of at least one antiretroviral and or tuberculosis-related medicine on the day of contact and 36% during the three months prior to contact [289]. Essential medicines and medical equipment are critical building blocks of a health system [290]. The absence of essential medicines and medical equipment leads to distrust of the healthcare system by the public, decreases utilisation of a health care facility by the public [291], and could even lead to death [292]. In another study conducted in the Western Cape province of South Africa, albeit with different research objectives, PHC facility managers stressed that being expected to do more with less resources constrained their adoption of new innovations [223].

Capacity building improves the ability to exercise decision space, [159]. In our study, at least one week of training was a significant predictor of decision space, but training alone is an inadequate mechanism to capacitate implementers without the provision of adequate resources. We could not find other studies that used Bossert's decision space approach at PHC facility level. Nonetheless, other studies that have examined decentralisation have found that the availability of resources and managers' control over these resources positively influence their ability and extent of exercising available decision space [118, 168].

The PHC managers reported that the pressure, whether real or perceived, to meet the "ideal clinic status", trumped their lack of authority and control and led to unintended consequences of creating

an illusion of compliance. They ended up borrowing and buying items from their pockets in order to meet the ICRM programme criteria. Bossert notes that implementing authorities often bend the rules when the original rules are not enforced [293], and Lipsky states that implementers use their discretion in what or how to implement policies [146].

However, the consequences of acting as compliant could challenge the sustainability of the ICRM programme. Hodes et al, investigated the coping strategies of PHC facility managers with drug stock outs in the Eastern Cape province of South Africa and found that they formed networks of borrowing drugs from each other's facility within a district [294]. This practice obscured the severity of their medicine stock outs and made it difficult to measure the extent of the problem.

The cross-sectional nature of the study means that it represents the perceptions of PHC managers at a point in time. The PHC facility managers are both frontline staff who implements national policy, while at the same time policy actors, who shape the outcome of national health policy. Hence, the results may reflect some social desirability bias. The notion of decision space is uncommon among frontline staff, and may have been misunderstood by these PHC facility managers; hence the high mean scores on overall decision space. The study was done in the two NHI pilot districts in two South African provinces and the results may not reflect the situation in the other districts in the two provinces and/or in the rest of South Africa.

However, the study has numerous strengths. We obtained a 100% response rate among study participants. Although the exclusion of frontline managers in the conceptualisation of health policy is not new, the study has generated new knowledge on the implementation of the ICRM programme in two South African provinces, specifically their decision space and the unintended negative consequences of a compliance culture that obscures health system deficiencies. This is important because the ICRM programme is a major health policy initiative under the auspices of the phased NHI system [12], South Africa's major reform towards UHC. The methodological approach is novel, as it is one of the first studies in South Africa to use Bossert's decision space

approach at PHC facility level. The survey combined the opportunity to elicit open-ended responses, which revealed the contradictions and nuances of policy implementation from the perspective of frontline facility managers.

In South Africa, all PHC facility managers are professional nurses, as also shown in this study. In the world innovation summit for health report (2018), WHO emphasise that "nurses and midwives are at the heart of progress toward universal health coverage (UHC) and the Sustainable Development Goals (SDGs), because they play a critical role in transforming health policies" [295]: 5.

South Africa's preparations for NHI system are underway; hence the findings can inform future health sector reforms. Firstly, the findings imply that policy-makers and executive managers at national and provincial levels should ensure greater investment in the health workforce [295]. Secondly, there should be special efforts to involve frontline managers and staff in discussion on future health reforms, both at their workplaces, as well as through their representative organisations. This should go beyond merely informing them, to active involvement in shaping policies or reforms, as buy-in is likely to achieve successful implementation and reduce unintended negative consequences [285]. Lastly, the findings suggest the need to ensure adequate resources, an enabling practice environment, and support to PHC facility managers, within an overall context of prioritisation of the PHC approach as reiterated at Astana [6].

6.5 Conclusion

The study has generated new knowledge on the degree of choice that PHC facility managers exercise in the implementation of the ICRM programme in South Africa, and the potential for unintended negative consequences of national health policy implementation when there is insufficient involvement of frontline managers. PHC is purported as the central plank of NHI reforms in South Africa. Hence, the success of PHC reforms as an essential part of the planned NHI depends in the active involvement and participation of PHC facility managers, ongoing training, resource availability and encouraging a culture of learning from both mistakes and successes.

6.6 Author contributions

Sabelile Muthathi (SM) and Laetitia Rispel (LR) conceptualised and designed the PhD study. SM collected all the data as part of her PhD. LR is the primary supervisor of the PhD. Jonathan (JL) is a biostatistician, JL and SM performed the statistical analysis, with inputs of LR. All authors contributed to the writing and editing of the manuscript, read and approved the final version of the manuscript.

CHAPTER 7: DISCUSSION AND RECOMMENDATIONS

7.1 Introduction

The ICRM programme is a major health policy reform in South Africa, designed to address the deficiencies in the quality of PHC services [12]. The goal of the programme is "to lay a strong foundation for the implementation of National Health Insurance (NHI)"[53]: 1. The NHI is South Africa's main reform towards UHC.

My PhD study has generated new knowledge on the context of ICRM implementation, IGR, and the interaction, response to or influence of health policy actors on this reform. The study is important because research on policy implementation plays an important role in highlighting progress and challenges of government policies, thereby enhancing public accountability [201]. Furthermore, the pioneering World Health Report of 2000 emphasised that government is ultimately responsible for the overall performance of a country's health system, which in turn influences population health outcomes [296].

In this concluding chapter, I have integrated and discussed the key findings of this thesis, in line with the study objectives. Section 7.2 outlines the key findings from the three study components; and discusses the findings by research objective. Section 7.3 focuses on the recommendations and provides lessons for design and/ or implementation of the proposed NHI. In Sections 7.4, I have highlighted the scholarly contribution and policy impact of the PhD and Sections 7.5 and 7.6 contain policy relevance of this PhD study and recommendations for further research respectively.

7.2 Key findings

The key findings from this PhD study are shown in

Table **23**. Although these findings are inter-related and inter-dependent, each study objective is

discussed separately for the sake of clarity.

Table 23 Summary of PhD findings

Summary of PhD findings
• The context of the ICRM programme implementation was characterised by complexity, insufficient recognition of the roles and responsibilities of different government spheres, weak inter-governmental relationships, and unclear or diffuse accountability. • The lack of policy coherence between the ICRM programme and the national core standards (NCS) of the OHSC led to duplication of efforts, and exhaustion among frontline staff responsible for implementation. • Although local leadership and experience in PHC facilitated implementation of the ICRM programme, resource shortages and bureaucratic obstacles constrained implementation, with no substantial differences between the urban Gauteng district, and rural Mpumalanga districts.
• The social network analysis (SNA) of the structure of IGR (overall network) revealed non-cohesive (or fragmented) relationships between the different spheres of government. This was evidenced by the overall densities of 21.2% in GP and 25.1% in MP. • The most cohesive relationships existed within the NDoH with a density (d) = 66.7%. This density suggests that national policy actors sought advice from one another on the ICRM programme, instead of seeking advice from those in the two provincial health departments. A density of 2.1% in Gauteng DoH, and 12.5% in Mpumalanga DoH illustrated the latter. The SNA found a density (d) of 0% between NDoH and the local government health department, suggesting that there was no interaction or request for advice (inputs) from local government in Gauteng (the only province with local government PHC clinics). • Similarly, the relationships between the Gauteng DoH and the local government health department were characterised by non-cohesion, and insufficient mutual support (d= 9.7%). • The SNA revealed that for “sharing information”, the IGR across national, provincial and local government health departments had low densities of 14.6% in GP, 17.2% in MP and 4.2% for the GP local government for receiving information from the national sphere. The interactions regarding the ICRM programme implementation centred around a few

individuals (centralised networks), illustrated by the centralisation values of 0.5-0.8 in GP and of 0.5-0.7 in MP.

- The PHC facility managers reported narrow to moderate decision space on the critical areas of the availability of medicines and resuscitation equipment, with mean scores of 17% and 21% respectively.
- Only 48% of PHC facility managers were part of the very first meetings to discuss the ICRM programme.
- The qualitative data revealed the unintended negative consequences of striving for "ideal clinic status". PHC facility managers created an illusion of compliance with the ICRM standards, amidst resource constraints and sub-optimal practice environments.

7.2.1 The context of the ICRM programme implementation

One of the objectives of this PhD was to explore the context of the implementation of the ICRM programme in Gauteng and Mpumalanga Provinces.

Using Bressers' Contextual Interaction Theory [73], the study explored the wider, structural and specific context of the ICRM programme implementation, and the links to and interaction among health policy actors in the two selected provinces. The NDoH's primary motivation was PHC quality improvement in preparation for NHI implementation (*the wider context*). Senior officials conceptualised a centrally driven programme, possibly as part of renewed efforts to assume the NDoH's stewardship role of the entire health system [36]. This programme conceptualisation also coincided with a new term of government and a new Minister of Health who was keen to turn around the perceptions of leadership failures, especially in the NDoH [57]. Rispel and Moorman suggested that some NHI reforms, including the ICRM programme, might reflect centralising tendencies in the NDoH and/or a concerted effort to "overcome the fragmentation caused by provincial health federalism", which has bedevilled health policy implementation in South Africa [36]: 140. The SNA confirmed the centralised approach to the ICRM programme, illustrated by a measured density (d) of 66.7 % within the NDoH. This density means that officials within the NDoH sought or gave advice to each other, rather than involve policy actors at provincial or district

health levels.

There is insufficient empirical evidence on the impact of different forms of decentralisation on health sector outcomes [118], which include quality of care improvements. In a multi-country study on federalism and decentralisation that included South Africa, Marchildon and Bossert found large variations among the eight countries studied, influenced by historical context, legislation, level of income, extent and maturity of democracy, and management capacities [118]. In contrast, in a comparative study on health care financing and provision in Singapore, Malaysia, Taiwan and South Korea, Smullen and Hong found that political centralisation facilitated the capacities of these governments to pursue health sector reforms [297]. Although strong national leadership is required in the case of the management of pandemics or global health emergencies [246], such leadership is not mutually exclusive of clear roles and responsibilities of all stakeholders, strong IGR and policy coherence (*structural context*). A Swedish study that examined the dynamics of sustainable changes in integrated health and social care found that critical success factors were a participatory approach, cooperation, and adapting the content of the change to suit its context [298].

My PhD study found that the ICRM programme was designed in parallel with the NCS of the OHSC *(specific context),* itself a major NDoH initiative enacted through an amendment of the National Health Act [49]. Notwithstanding the gaps in the NCS at the PHC level, the ICRM programme resulted in insufficient or lack of policy coherence with the NCS. Key informants lamented the duplication of efforts caused by the obligation to implement two sets of PHC quality standards, and exhaustion among frontline staff responsible for implementation *(specific context).* The PhD study results underscore the importance of ensuring coherence at the policy conceptualisation and design stage (in this case the ICRM programme), through a combination of strategies, including involvement of, and information sharing with, relevant policy actors. Other South African studies have found policy incoherence between government action to promote a healthy food supply and government objectives for economic liberalisation [236], or the control of the marketing of alcoholic beverages [299]. However, specific studies in South Africa on the policy [in] coherence with respect to PHC quality reforms could not be found. A multi-country study in China, India and Vietnam also found lack of coherence between each country's human

resource strategy and maternal and child health policy, which affected implementation adversely [238]. In contrast, studies that demonstrate how to achieve policy coherence also provide useful insights. A study on the design, implementation and scaling up of the balanced scorecard for hospitals in Lebanon highlighted several contextual factors that ensured policy coherence and successful implementation [300]. These contextual factors included: clarity about the aims of measurement, engagement and involvement of all stakeholders, adequate communication, an enabling culture and environment, phased implementation, listening and responding to hospitals' needs and concerns, and emphasising the continuous nature of quality improvement [300].

In my PhD study, both the key informants and survey among PHC facility managers highlighted insufficient resourcing for the ICRM programme *(structural context)*. The key informants at provincial and district health levels reported that there was no dedicated budget in the first two years of the ICRM programme. In Gauteng Province, the programme was perceived as an unfunded mandate and there were fragmented relationships, illustrated by a density of 2.1% between NDoH and Gauteng Province. Although a conditional grant was allocated after two years for the ICRM programme in each NHI district, spending was hampered by the grant conditions, cash flow and supply chain challenges. The frontline PHC facility managers in turn complained of limited budgets, supply chain challenges, and being forced to fund smaller items from their own pockets to avoid being penalised during ICRM programme assessments [244].

Bressers' Contextual Interaction Theory highlights the dynamic relationship between the context, motivation, cognition (knowledge and information) and power of policy actors [73]. The theory underscores the importance of resources, because resource availability could strengthen, whereas shortages could weaken the power and motivation of a given policy actor [170] In this PhD study, the resource constraints appeared to have weakened the position of policy actors at provincial, district, local government and health facility levels. Bressers' predict that the type of process interaction could be on a continuum of cooperation (passive, forced or active) and obstruction at the other extreme [170]. The PhD study findings suggest that provincial and district health officials engaged in passive or forced cooperation, whereas PHC facility managers engaged more actively, possibly as a coping strategy. Further research is needed to explore why PHC facility managers chose to create an illusion of compliance [244], rather than report the reality of resource constraints

or management failures at district and provincial levels. This is because personal funding or borrowing of essential items such as medicines have dire consequences for quality of patient care [301].

Another South African study on community health workers have also found that resource constraints affected policy implementation negatively [140], while a 2019 evaluation of NHI initiatives in pilot districts highlighted the disabling consequences of budgetary and supply chain challenges [270]. The problem of insufficient resources when implementing health sector reforms is not unique to South Africa. In Tanzania, one study reported on the delays in the implementation of contracting out of PHC services because of centralised budgeting [94], while another study found that insufficient budgets and lack of accountability of personnel responsible for supply chain management led to inconsistencies in drug supply [302]. In Ghana, Malawi and Nigeria insufficient resourcing led to unavailability of emergency equipment [303]. Similarly in Nepal drugs shortages due to lack of resources led to distrust in provider-patient relationships during the implementation of the abolition of the user-fees policy [304]. A 2017 study in India that examined the influence of macro and micro contextual factors on the implementation of the PHC approach at health centres found that chronic under-funding of health centres, and doctors' lack of interest in working at PHC level, adversely affected both implementation and the philosophy of PHC [97]. Although the above-mentioned studies are from different political and economic contexts, South Africa can learn from the consequences resulting from insufficient resourcing or resources during the implementation of health sector reforms.

My PhD study findings imply that either health reforms should be planned within existing resources, or that resource requirements should be a critical part of policy conceptualisation and programme design.

7.2.2 Exploring roles and responsibilities

Linked to context, a second objective of the study was to explore the roles and responsibilities of different policy actors in the ICRM programme implementation. Bressers' Contextual Interaction Theory emphasises the duality of motivation, cognition (knowledge and information) and power of health policy actors in shaping and interacting with policy context, and vice versa [73].

As highlighted in the previous section, the context of the ICRM programme implementation was characterised by complexity, with NDoH driving the ICRM programme implementation, in a top-down or centralised fashion. Key informants in the NDoH were motivated to provide leadership for PHC facility quality improvements, in response to the results (information) of the health facility audit [14], to comply with the NCS of the OHSC, and to lay the foundation for NHI implementation [14]. Furthermore, the NDoH has the constitutional power to determine health policy for the country [32].

However, in addition to the contextual constraints, my PhD study found that that there was insufficient recognition by the NDoH of the roles and responsibilities of different government spheres. The findings of the SNA suggests that officials in the NDoH did not prioritise interaction, consultation, and information sharing with policy actors in provincial government, illustrated by the density of 2.1% in GP, and a density of 12.5% in MP. This difference in densities between the two provinces could be a consideration of the rural nature of Mpumalanga, with slightly more interactions between the NDoH and MP. This is an area for further research to explore whether NDoH took into account differences in geography and capacities in their interactions on the ICRM programme implementation.

Key informant interviews highlighted the contestations regarding role clarity. Some reported that roles and responsibilities were clear, but that the problem was lack of enforcement or unfulfilled responsibilities (such as the development of specific provincial policies). Other key informants reported that there was confusion and lack of clarity on roles and responsibilities in the ICRM programme implementation. For example, in GP, the finance manager did not budget for the ICRM programme implementation, and the quality assurance manager did not see the programme as part of quality improvement. Both these reactions could also reflect the motivation, power and knowledge or access to information of these provincial policy actors. As highlighted by Koduah

et al in examining the role of policy actors and contextual factors in policy agenda setting and formulation in Ghana, contextual factors shape how policy actors behave at particular times [204]. In my study, the consequence of these role contestations was diffuse accountability at best, or lack of accountability at worse. In the survey component of the PhD, PHC facility managers reported that role contestations, and diffuse accountability affected their ability to achieve ideal clinic status [244].

The PhD findings are similar to those of another South African study that examined the implementation of the District-based Clinical Specialist teams (DCSTs) [141]. Oboirien et al reported the lack of a clear mandate of the DCSTs, insufficient recognition of the roles of different actors, leading to role conflict or confusion and lack of accountability for service delivery [141]. Studies in other countries have also highlighted the negative consequences of lack of role clarity. In Kenya, a 2018 study found that lack of role clarity led to lack of accountability, poor supervision and inaccurate reporting, in the implementation of a free maternity service policy [263]. A study in India on public-private partnerships in tuberculosis control found that despite a clear outline of roles and responsibilities, there was conflict within the teams, with some frontline service providers feeling that their contributions were undermined [305]. A Nigerian study on perceptions of PHC government officials on accountability found that lack of role clarity, led to lack of a reporting structure and supervision, which jeopardised both performance and accountability [139].

My PhD study results highlight the need for clarity on roles and responsibilities. However, such clarity on its own is insufficient in the absence of effective and mutually supportive relationships, open and transparent communication, and clear accountability mechanisms.

7.2.3 Inter-governmental relations

The third objective of this PhD study was to examine IGR in the implementation of the ICRM programme. Each of the national, provincial or local government health department could be viewed as a network. Hence, Provan and Milward's theory of the multi-dimensional nature of networks, the relationship between inter-organisational network structures and activities, and how

public policy is implemented through networks of cooperating health service providers was appropriate to answer this objective [169, 265].

Both the qualitative and the SNA study components highlighted the weak IGR in the ICRM programme implementation, characterised by centralised control of programme design, hierarchical and insufficient communication, and bureaucratic obstacles. These include lack of, or late transfer of funding, inability to spend money, and supply chain bottlenecks. As discussed already, NDoH officials primarily talked to or consulted with one another (d=66.7%). Densities of 21.2% and 25.1% between the NDoH and Gauteng and Mpumalanga Provinces respectively highlighted the non-cohesive or fragmented relationships. Notwithstanding the role of local government in PHC service delivery in the metropolitan municipalities, there was no interaction between NDoH and local government in Gauteng (density=0%).

However, this fragmentation continued at provincial level in Gauteng, where local government provides a sizeable proportion of PHC services. In Gauteng, provincial health actors described local government officials as “non-responsive and non-cooperative”. Local government policy actors reported feelings of exclusion, and top-down communication that ignored their constitutional independence. The SNA corroborated these perceptions and found a density of 9.7%, suggesting non-cohesion and insufficient mutual support between Gauteng provincial health officials and local government health officials.

The weak IGR were exacerbated by the lack of information sharing and the centralised networks in both Gauteng and Mpumalanga provinces. For example, there were low densities of 14.6% in GP, 17.2% in MP and 4.2% for the local government receiving information from the national sphere. The centralisation values of 0.5-0.8 in Gauteng and of 0.5-0.7 in Mpumalanga suggest that the power, knowledge, and information were concentrated in the hands of very few individuals. However, in my PhD study, the motivation, information and power of the different policy actors were inferred, rather than measured quantitatively. Hence, this is an area for further research.

In South Africa, there is a dearth of studies on health reforms and IGR that involve local government. This is because most other health services are provided at provincial government level, and in rural provinces, local government does not provide PHC services. Although the context is very different, other studies have also found that fragmentation and weak IGR adversely affected health policy implementation. In Italy, a study found that the challenges of inter-governmental, multilevel relationships combined with policy fragmentation and fiscal constraints contributed to the failed implementation of long-term care policies [137]. In the Netherlands, a policy analysis highlighted the problems of coordination between federal government and municipalities, and the potential of perverse incentives in municipalities when implementing the country's long term care reforms [306].

Notwithstanding the political nature and complexity of IGR [115, 307], various authors have argued that strong relationships are desirable to encourage a shared vision, improve communication, facilitate resource sharing, and ensure coordinated programme implementation to achieve the stated policy goals [262, 266, 308-311]. A Nigerian study on fee-for-performance found that efforts to build relationships between policy actors enhanced their motivation and facilitated efficiency [312]. In the Netherlands, a study found that management and trust were associated positively with perceptions of integrated public health policy and network performance [313].

The findings from several studies that have used social network analysis suggest that interaction amongst policy actors (as measured by network density) positively influenced the achievement of programme goals [75, 262, 314, 315]. There is consensus that a low density is not desirable in programme implementation or in major change interventions (as in the case of an ICRM programme) [75, 262, 314, 315]. This is because implementation requires actors to work together to achieve organisational or programme goals, and to share resources [253]. In a study on social networks for programme implementation, Valente et al [253] proposed that densities below 15% are too low in the implementation of a programme, because it suggest the lack of interaction among key policy actors. At the same time, they proposed that it is not desirable to have densities above 50%, as these hinder the flow of resources in a network (in this PhD, information flow, consultation, and support). Similarly, Gesell et al's study on diagnostic tools underscored the

importance of a connected network in implementation [254]. Some studies suggest that sparse networks are desirable and useful when the goal is to encourage deviation from group norms and values, and/or to encourage connections to external networks that can generate or infuse new ideas [68-70].

In this PhD study, the fragmented IGR jeopardised the flow of information, interaction and support across the different spheres of government, and exacerbated the reported challenges of resource constraints. Further research is needed on whether stronger IGR would mitigate the perception and/or reality of resource constraints.

Given the importance of the ICRM programme to the NHI reforms, there should be more effort to discuss policy implementation in the existing forums that bring together officials from all levels of government. Such forums include the National Health Council (NHC), and its technical committees, as well as the Provincial Health Councils. The NHC brings together the Minister of Health, the nine provincial members of the executive councils, the national director-general, and senior executives, the nine provincial heads of health, local government and the military health department [10]. These forums should also be used for capacity building on policy design, costing of reform proposals, writing clear roles and responsibilities, accountability mechanisms, and monitoring and evaluation.

7.2.4 Involvement, participation and decision space

Using Bossert's decision space framework [60], the fourth and final objective of the PhD was to examine the involvement, participation and decision space of policy actors, especially PHC facility managers, in the implementation of the ICRM programme.

The lack of involvement in the design of the ICRM programme was a cross cutting theme from key informants at provincial, district and local government levels. Their perceptions were that the ICRM programme was "forced on" them. The reported consequences were lack of buy in and lack

of ownership in ensuring implementation success. The survey among PHC facility managers highlighted the views of those at the coal face and the consequences of centralised decision-making [244]. The survey found that only 48% of PHC facility managers were part of the very first meetings to discuss the ICRM programme. In Bressers' theory, these managers are the "target group" who are critical to implementation [170]. A 2013 study among PHC clinic managers in Gauteng and Free State provinces, found that 31% had not heard of the PHC re-engineering reform, and they felt largely excluded from the health reform discourse [286]. Unfortunately, this PhD study finding suggest that this exclusion of frontline manager continues, with negative consequences for policy implementation, and in this instance, for quality improvements at the PHC level.

Studies in Kenya, Nigeria, and Thailand have also reported top-down approaches, lack of involvement of policy implementers and unsuccessful or failed policy implementation [62, 278, 316]. This is despite ongoing advocacy for inclusion of health workers and communities at an early stage of policy design [278, 317].

The PHC facility managers reported narrow to moderate decision space on the critical areas of the availability of medicines and resuscitation equipment with mean scores of 17% and 21% respectively. This suggests that their decision space is not aligned with their area of responsibilities [282]. Importantly, this narrow decision space in turn compromised quality of care at PHC level, thus achieving the opposite of the intention of the ICRM programme. I could not find other studies that have applied the concept of decision space at health facility level. Other studies on decision space have focused at district health level, but also found that narrow decision space in the areas of human resource and finances constrained the ability of district managers to fulfil their roles [318].

Notwithstanding the messiness of the policymaking on health reforms, what are the recommendations that arise from these PhD study findings? These recommendations provide lessons for other NHI reforms that are planned. These are summarised in Table 24 and discussed briefly.

Table 24 PhD Study Recommendations

PhD Study Recommendations				
Recommendations	**National sphere**	**Provincial sphere**	**Local government**	**PHC facility manager**
The design of national health reforms should include contextual variations, costs, and resource and capacity building requirements.	X	X		
The NCS and ICRM tools should be reviewed and aligned, taking into account the views of PHC facility managers, and other relevant stakeholders.	X	X	X	X
Existing mechanisms for inter-governmental relationships should be used to discuss planned health reforms, report on, and monitor policy implementation.	X	X	X	
Each major health reform should include a map of all policy actors and/or stakeholders, with a clear outline of roles and responsibilities.	X	X		
Major health reforms should be accompanied by a clear implementation plan that includes capacity building, creation of positive practice environments for staff, and indicators for monitoring and evaluation.	X	X		
A communication plan should be developed for each major health reform.	X	X		
Invest in training for all relevant policy actors at all spheres of government Such training should aim to identify learning needs, incorporate stakeholder voices, highlight their importance to implementation success, and support a culture of change and ongoing learning.	X	X	X	X

PHC facility managers should be involved in policy conceptualisation and design, and trained on implementation of health reforms. A culture of learning should be encouraged, that incorporates the voices and experiences of PHC facility managers, and a culture of compliance should be discouraged.	X	X	X	X
There should be an electronic system or mechanism to report drug stock outs and unavailability of medical equipment, with standards for timely response from relevant authorities. Clinic committees and/or advocacy groups should contribute to the monitoring of compliance with these standards.	X	X	X	X

7.3 Recommendations

7.3.1 Design of health reforms

National government, specifically the NDoH, is responsible for stewardship of the health system [296]. According to WHO, the functions of stewardship include: defining the vision and direction of health policy, using legislation to bring about changes, exerting influence through collecting and using information and/or research, and accountability to society at large [296]. WHO underscores the role of government in involving all sectors of society in its stewardship role [296].

Hence, the first recommendation is that the design of national health reforms should include contextual variations, costs, and resource and capacity building requirements. There is already provision in the existing Treasury regulations for cost and resource requirements to be outlined in the case of new legislation. There is a clear template and procedure, and this could be done for the ICRM programme moving forward, as well as for similar health reform initiatives.

Appropriate policy design also means that there should be alignment with existing, relevant policies. The NCS and ICRM programme tools should be reviewed and aligned, taking into account the views of PHC facility managers, and other relevant stakeholders. At the time of writing, there were encouraging discussions between officials in the NDoH and the OHSC to align the NCS and ICRM programme tools, and to ensure that PHC facility managers are not confused or burdened with competing and/or conflicting demands [319].

7.3.2 Improve inter-governmental relations

Both the South African Constitution [32], the National Health Act [10] and the Inter-governmental Relations Framework Act [219] make provision for consultation and discussion of relevant legislation and/or policies. In addition to the NHC, there is a technical committee that supports the NHC, comprising senior government officials from all spheres of government. In each province, these structures are repeated. Hence, the issue is not the existence of relevant forums, but rather the utilisation of these forums. Each major reform should be discussed and debated at all relevant forums. These forums should also be used to report on implementation of

major reforms, and to monitor progress, highlight or share challenges and develop appropriate solutions.

7.3.3 Involvement of all relevant policy actors

The NDoH should develop a stakeholder map for each major health reform, with a clear outline of roles and responsibilities. The current ICRM programme manual assigns the role of developing standard operating procedures for facility record management, and for safe administration of medicines to three groups of stakeholders: facility, district and provincial managers [54]. Such concurrent responsibility leads to confusion, with the potential for tasks to fall between the cracks.

There should not be an assumption that a document on roles and responsibilities is sufficient, but stakeholders should be briefed, and given an opportunity to engage with, and comment on the proposed reform. This is likely to achieve buy-in, and facilitate successful implementation and change management.

7.3.4 Implementation and communication

Major health reforms should be accompanied by a clear implementation plan that includes capacity building, creation of positive practice environments for staff, and indicators for monitoring and evaluation. The implementation plan includes a communication plan, and mechanisms for informing and engaging with stakeholders, using different kinds of media. There is already a requirement in government to have a communications infrastructure and plan to share information and engage with the public [320].

The original ICRM programme manual envisaged a clear communication plan, with the appointment or designation of “ideal clinic champions”. However, existing facility and sub-district managers were designated as champions, so they had to perform this task in addition to their usual portfolios. The key informants lamented about the culture of hierarchical communication. The experience of managing the COVID-19 pandemic provides an excellent

example of open and transparent communication, across government, but also with the public. For example the government scheduled frequent media briefing on plans and developments on COVID-19, quick public consultation surveys were used to inform adjustment of some decisions by the government, the COVID-19 hotline and an application were used for information sharing between government and the public. The national website for COVID-19 was updated with frequently asked questions [321]. These principles could be used for major health reforms as well to ensure success and long term sustainability of the reforms.

7.3.5 Capacity building

Capacity building goes beyond training, and includes organisational capacity building as well. However, training is important and there should be adequate investment in training for all relevant policy actors in all spheres of government. Such training should aim to identify learning needs (e.g. on financial management, monitoring and evaluation, etc.), incorporate stakeholder voices, and communicate a vision that highlights the importance of every stakeholder to policy implementation success. Capacity building should also include change management, ethical conduct and behaviour, accountability, and supporting a culture of ongoing learning.

7.3.6 Involvement of frontline implementers

Although PHC facility managers are an important group of policy actors, their criticality to successful implementation warrants a separate recommendation. In the case of PHC reforms, the frontline managers should be involved in policy conceptualisation and design. They should be trained on implementation of health care reforms. A culture of learning should be encouraged and incentivised. The implementation plan should take into account and incorporate the voices and experiences of PHC facility managers. A culture of compliance should be discouraged, and possibly penalised, as it is characterised by untruthful reporting, which is unethical.

There is also an urgent need to add a health policy module in the training of all professional nurses, especially in the fields of PHC and community nursing. When nurses are empowered at

novice level, they will regard it as a norm to challenge policy practices that deviate from the norm.

7.3.7 Enabling systems for implementation

Given the growth in technology, there should be an electronic system or mechanism (e.g. using mobile phones) to report drug stock-outs and unavailability of medical equipment, with standards for timely response from relevant authorities. The current ICRM programme manual only indicates that facility managers should follow up if there are outstanding tasks, and that they should escalate the matter to the sub-district and district level [54]. This is a cumbersome process. In addition, the manual is unclear on what facility managers should do, if the district manager remains unresponsive.

The mobile phone technology can also be used to communicate with and involve PHC clinic managers, or gauge their opinions on any changes.

PHC facility managers should also nurture their relationships with clinic committees and/or civil society advocacy groups that represent the interest of communities. The clinic committee members should be trained on their advocacy roles, and should understand what constitute quality health care, such as the availability of medicine and medical equipment. These groups in turn should monitor compliance with these quality standards, and assist PHC facility managers in resolving problems in resource availability and in supply chain management.

The involvement of clinic committees and civil society advocacy groups will also enhance accountability to the public.

Table 25 outlines some lessons for the implementation of NHI reforms or specific projects.

Table 25 Summary of lessons for the implementation of NHI reforms

Summary of lessons for the implementation of NHI reforms
The findings of this PhD study provide important lessons for the implementation or NHI reforms or specific NHI projects: 1. Shared vision and distributed leadership at all levels of the health system to ensure successful implementation. 2. Clarity of roles and responsibilities across different government spheres, and of various policy actors. 3. Ensure that accountability, structures and mechanisms are made explicit in writing. 4. Engagement and involvement of frontline health policy actors in the conceptualisation and/or planning to ensure that the policy design takes into account the context, as well as their insights and experiences. 5. Encourage and invest in changing the organisational culture to be transparent and to learn from mistakes. 6. Strengthen existing systems (e.g. procurement, supply chain management). 7. Transparent resource allocation and management. 8. Careful documentation and sharing of experiences to facilitate monitoring and evaluation, so that lessons can be incorporated into future actions or strengthen implementation.

7.4 Scholarly contribution

The scholarly contribution of the PhD is both in the generation of new knowledge, and its methodological innovation.

7.4.1 Generation of new knowledge

This PhD study has contributed three scientific research papers on the ICRM programme, the focus of each is highlighted below.

- The study generated new knowledge on the *context of the ICRM programme implementation.* Contextual issues include the lack of or insufficient coherence between the NCS and the ICRM programme, contestations about roles and responsibilities, and diffuse accountability. This context interacted with, and was in turn influenced by the motivation, cognition (both knowledge and information) and power of the various health policy actors.

- The fragmentation or lack of cohesion in *inter-governmental relations* in the implementation of the ICRM programme is new knowledge, and the measures of densities and centralisation provide empirical evidence of the difficulties of implementing PHC reforms through service providers across the three spheres of government.

- The study component on *participation and decision space of PHC facility managers* generated new knowledge on the limited degree of authority given to the PHC facility managers as implementers at the frontline, especially on the critical areas of resuscitation equipment and essential medicines. This component also generated new knowledge on the behaviours of facility managers who chose to create an illusion of compliance instead of reporting the reality of their challenges in implementing the ICRM programme.

7.4.2 Methodological contribution

This PhD sought to analyse the implementation of the ICRM programme as a major health policy reform in South Africa. The methodological contribution of this PhD derives from the use of various theories and the combination of in-depth interviews with key informants, a survey among

frontline PHC facility managers, and using SNA. This enabled the researcher to examine the ICRM programme implementation from different perspectives, and to triangulate the methods and the results. The specific methodological contribution is outlined below:

Novel application of various theories

- Study component 1 drew from Bressers' Contextual Interaction Theory[73], which enabled the exploration of the contextual factors in the ICRM programme implementation, specifically the wider, structural and specific context. The theory also allowed an exploration of the influence of context on actors' motivation, cognition (knowledge and information), and power. Bressers' theory both guided the interview questions and the analysis of the data. Hitherto, the application of Bressers' theory in health policy studies is uncommon, especially in South Africa, or other LMICs.

- The analysis of IGR in the implementation of the ICRM programme drew on Provan and Milward theory of network effectiveness [169], and the complexity of multiple interactions across three spheres of government in the implementation of public policy. The researcher could not find published studies that have applied Provan and Milward's theory in health policy studies in South Africa.

- Study component 3 drew from Bossert's Framework of Decision Space [60] to measure the degree of authority of PHC facility managers on the vital elements of the ICRM programme. Originally developed to measure the degree of authority exercised at the level of decentralised health authorities, the majority of studies have applied the framework at these levels. My PhD study was one of the first studies to apply Bossert's Decision Space Framework to frontline PHC facility managers.

Mixed methods approach

Although mixed methods are common, this PhD study used a novel approach by combining three usually separate approaches, namely SNA, in-depth interviews of key informants and survey methodology, thereby contributing to the broader literature on health sector reforms. Although the application of SNA is growing in health studies, its application in analysing IGR in the ICRM programme implementation is novel, both in the South African and African context.

7.5 Policy relevance

There is global recognition of the need to improve quality of care, especially at PHC level, in order to achieve the global goal of UHC by 2030 [4, 47].This PhD was a policy analysis of the implementation of the ICRM programme, a nationwide quality improvement programme envisaged to assist PHC facilities to comply with the requirements of the NCS [14]. Although the percentage of ideal clinics increased from 9.3% (322) in 2015/16 to 55.4% (1 920) in 2018/19, the NDoH indicated that their target of having all PHC facilities ideal by 2020/21 appears unrealistic [259]. The NDoH also highlighted the wide variations in ideal clinic status. In 2018/19, Gauteng had the highest percentage of facilities at 89.2%, whereas the Eastern Cape (EC) performed the worst, with only 32.4% of fixed PHC facilities obtaining ideal clinic status [259]. The sustainability of the ICRM programme results remains problematic as 9.4% (31), 13.5% (106) and 12.2% (70) of facilities that obtained ideal clinic status in 2015/16, 2016/17 and 2017/18 respectively, had lost their IC status by 2018/19 [259]. Although the NDoH made several recommendations to accelerate achievement of ideal clinic status, reduce provincial variations, and enhance sustainability, all of these focused on the structural aspects of quality improvements [259].

This PhD found that the contextual constraints, weak IGR, and insufficient involvement of frontline managers influenced the implementation of the ICRM programme. In Section 7. 3, I have outlined a detailed set of recommendations to improve the implementation of the ICRM programme, and to ensure sustainability. These recommendations go beyond addressing structural aspects of quality, but highlight the importance of policy design, involvement of key stakeholders, and ongoing monitoring and evaluation.

Preparations for the full implementation of the NHI are underway in South Africa, as it is the vehicle for achieving UHC in the country [322]. The policy relevance of this PhD research study is the lessons that it provides both for the implementation of the ICRM programme and other major health reforms.

7.6 Recommendations for further research

- Further research on the ICRM programme could include all provinces in the country, to enhance generalisability and comparison of successes and challenges, and the reasons for these differences.
- This PhD revealed numerous challenges related to access to resources in districts which were earmarked as NHI pilot districts, and which were given the NHI conditional grants. Future research could focus on the non-NHI districts to examine their experiences of ICRM implementation.
- The study component which examined the context revealed interesting findings on the motivation, cognition and power of the different policy actors, but these were inferred, rather than measured quantitatively, Bressers' theory could be applied in future studies, combining it with validated scales to measure motivation, knowledge and power of policy actors in implementing a health sector reform.
- One cross cutting theme was insufficient coherence between the NCS and ICRM programme, hence a need for a review that focuses on examining the NCS and ICRM tools for coherence, and assessing necessary improvements. The research should also examine whether the facilities that meet ICRM programme requirements comply with NCS requirements.
- The PhD found that PHC facility managers chose to create an illusion of compliance [244], rather than report the reality of resource constraints or management failures at district and provincial levels. Further research should explore why PHC facility managers choose to comply, rather than highlight the problems or disabling practice environments.
- The SNA study component found that the NDoH interacted with more actors in MP than in GP. While this could be because of a consideration of the rural nature of Mpumalanga, further research should explore whether NDoH took into account the differences in geography and capacities in their provincial interactions on the ICRM programme implementation.
- In this PhD study, the fragmented IGR jeopardised the flow of information, advice seeking and support across the different spheres of government, and exacerbated the reported challenges of resource constraints. Further research is needed on whether stronger IGR would mitigate the perception and/or reality of resource constraints.

7.7 Conclusion

This PhD examined the context, roles, IGR and the involvement, participation and degree of authority exercise by PHC facility managers in the implementation of the ICRM programme. The scholarly contribution is both in the generation of new knowledge of a PHC reform in the SDG era, as well as its methodological innovation.

The findings underscore the importance of considering context when planning a nationwide health sector reform, and of the involvement of policy implementers in design and planning, to ensure long-term sustainability. The lessons from this PhD include the importance of ensuring role clarity in policy implementation in order to improve accountability. Most importantly all the health policy actors should endeavour to strengthen relationships amongst each other when implementing a health sector reform so as to encourage sharing of information, knowledge, resources and provide mutual support. The global goal of UHC, enunciated through the NHI system in South Africa, necessitates that these issues be addressed.

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APPENDICES

Appendix 1 Ethics Clearance Certificate

R14/49 Ms IS Muthati

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
CLEARANCE CERTIFICATE NO. M170661

NAME: (Principal Investigator)	Ms IS Muthati
DEPARTMENT:	School of Public Health Medical School
PROJECT TITLE:	Policy analysis of the implementation of the ideal clinics initiative in Gauteng and Mpumalanga Provinces
DATE CONSIDERED:	30/06/2017
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Professor L Rispel
APPROVED BY:	Professor CB Penny, Co-Chairperson, HREC (Medical)
DATE OF APPROVAL:	22/09/2017

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

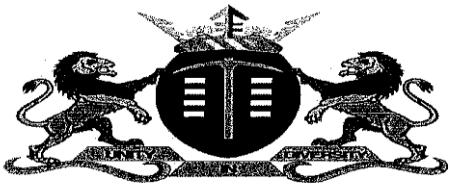
DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary on 3rd floor, Phillip V Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.
I/We fully understand the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to resubmit to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially reviewed in **June** and will therefore be due in the month of **June** each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix 2a Permission from Gauteng Province



GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

OUTCOME OF PROVINCIAL PROTOCOL REVIEW COMMITTEE (PPRC)

Researcher's Name (PI)	Ms Sabelile Muthathi
Organization / Institution	Wits
Research Title	Policy Analysis of the Implementation of the Ideal Clinic Initiative in Gauteng and Mpumalanga Provinces.
Contact number	Contact no: 011 717 2608 Cell: N/A Email: sabelile.muthathi@wits.ac.za
Protocol number	GP_201708_020
Sites	Gauteng Province Provincial Offices

Your application to conduct the abovementioned research has been reviewed by the Province and permission has been granted.

We request that you submit a report after completion of your study and present your findings to the Gauteng Health Department.

☒ Permission granted

☐ Permission denied

Dr Bridget Ikalafeng
On behalf of PHRC

Date: 12/09/2017

Appendix 2b Permission from Tshwane Provincial Clinics

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: ME Makhudu
Tel: 012 451 9025/9028

14 September 2017

DECLARATION OF INTENT FROM THE PHC MANAGER FOR TSHWANE PROVINCIAL CLINICS

I give preliminary permission to **Ms Sabelile Muthathi**, (researcher) to do her research on **"Policy analysis of the implementation of the Ideal Clinics Initiative in Gauteng and Mpumalanga Provinces"** in Tshwane clinics.

I know that the final approval will be from the Tshwane DHS Research Ethics Committee and that this is only to indicate that the PHC facilities (clinics only) are willing to assist.

Other comments or a condition prescribed by the PHC Manager to the Researcher is that:

Approval for conducting the research in Municipality clinics should be sourced from the Executive Director at the following contact details:

Mr. A T Malaka
Executive Director: Health Services
City of Tshwane
Landline: 012 358 9999
Mobile line: 082 959 7403
E mail: AbelMa@Tshwane.gov.za

M. MAKHUDU (Mr.)
PRIMARY HEALTH CARE: TSHWANE
DATE: 14 September 2017

Appendix 2c Permission from City of Tshwane Municipality Clinics

CITY OF TSHWANE
IGNITING EXCELLENCE

Health

Health Services

Room H2036 | 2nd Floor | FF Ribeiro Clinic, Sammy Marks | Cnr Madiba and Sisulu Streets | Pretoria | 0002
PO Box 440 | Pretoria | 0001
Tel: 012 358 8600 | Fax: 012 324 5135
Email: AbelMal@tshwane.gov.za | www.tshwane.gov.za | www.facebook.com/CityOf Tshwane

My ref:
Your ref:
Contact person: Dr E Oosthuizen
Section/Unit: Information and Knowledge Management and Capacity Building

Tel: 012 358 8600
Fax: 012 324 5135
Email: AbelMal@tshwane.gov.za

06 October 2017

To whom it may concern

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

Ms Sabelile Muthathi has preliminary permission to visit all the City of Tshwane clinics in order to conduct the abovementioned study.

Dr E Oosthuizen
DIRECTOR: INFIRMATION AND KNOWLEDGE MANAGEMENT AND CAPACITY BUILDING

Appendix 2d Permission from Tshwane Research Committee

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: Dr. Lufuno Razwiedani
Tel: +27 12 451 9036
E-mail: lufuno.razwiedani@gauteng.gov.za

TSHWANE RESEARCH COMMITTEE: CLEARANCE CERTIFICATE

MEETING: 06/2017
PROJECT NUMBER: 77/2017
NHRD REFERENCE NUMBER: GP_201708 _020

TOPIC: POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

Name of the Researcher:	Sabelile Muthathi
Name of the Supervisor:	Professor Laetitia Rispel
Facility:	Tshwane PHC Facilities
Name of the Department:	University of the Witwatersrand

NB: THIS OFFICE REQUEST A FULL REPORT ON THE OUTCOME OF THE RESEARCH DONE AND

NOTE THAT RESUBMISSION OF THE PROTOCOL BY RESEARCHER(S) IS REQUIRED IF THERE IS DEPARTURE FROM THE PROTOCOL PROCEDURES AS APPROVED BY THE COMMITTEE.

DECISION OF THE COMMITTEE: APPROVED

.....
Dr. Lufuno Razwiedani
Chairperson: Tshwane Research Committee
Date: 03/10/2017

.....
Mr. M. Makhudu
Acting Chief Director: Tshwane District Health
Date: 4/10/2017

Appendix 3 Permission from Mpumalanga Province

health
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

No.3, Government Boulevard, Riverside Park, Ext. 2, Mbombela, 1200, Mpumalanga Province
Private Bag X11285, Mbombela, 1200, Mpumalanga Province
Tel I: +27 (13) 766 3429, Fax: +27 (13) 766 3458

Litiko Letemphilo | Departement van Gesondheid | UmNyango WezeMaphilo

Enquiries: Themba Mulungo (013) 766 3511

Ms. Sabelile Muthathi
P.O Box 25321
Nelspruit
1200

Dear Ms. Sabelile Muthathi

APPLICATION FOR RESEARCH & ETHICS APPROVAL: POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

The provincial health research committee has approved your research proposal in the latest format you sent.

- Approval Ref Number: MP_201708_016
- Approval period: 01/10/2017 – 31/10/2018
- Facilities: Gert Sibande

Kindly ensure that the study is conducted with minimal disruption and impact on our staff, and also ensure that you provide us with the soft or hard copy of the report once your research project has been completed.

Kind regards

MR. J SIGUDLA
MPUMALANGA: PHRC

MPUMALANGA PROVINCE
DEPARTMENT OF HEALTH
PLANNING & INFORMATION
2017 -10- 02
DATE
PRIVATE BAG X 11285
NELSPRUIT 1200

Appendix 4 Information Sheet for Key Informants

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

INFORMATION SHEET FOR KEY INFORMANTS

Introduction and background

Hello. My name is Sabelile Muthathi. I am a PhD student at the School of Public Health of the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

The aim of this research study is to analyse the implementation of the ideal clinics initiative as a major health policy reform. The information obtained could be used to inform health policy implementation. I am requesting your participation as a key informant because you are a health policy actor and also because you have valuable and unique knowledge and experience attained in the implementation of ideal clinic initiative.

The interview will last for about an hour. If you agree to take part, I will ask you questions about the context of the initiative, the roles and responsibilities of policy actors, progress and challenges. The questions are not a test, so there is no right or wrong answers. It is your opinions and experiences that are important. My role as an interviewer is to listen and to understand your point of view, but not to pass judgment. You may refuse to answer any questions that you don't feel comfortable answering. You may also say that you don't know the answer to a question.

Confidentiality

The information that you give in the questionnaire will be kept confidential. Only the researcher and the supervisor will know who has been interviewed. All interviewees will be assigned a code and these codes will be used on the transcribed interviews. These codes will only be known to the researcher and the supervisor. I assure you that all information you provided will be used only for the purpose of the study. Everything that you say when answering the questions will be treated as private and confidential. Your name will not be revealed in any written data or report resulting from the study.

The answers given by participants will be combined and analysed to look for common themes and experiences. The combined information will be written up as a journal article, which will form part of the PhD thesis.

Consent

Permission to carry out this project was obtained from the University of the Witwatersrand Human Research Ethics Committee (Medical). I will ask you to sign an informed consent form to participate in the study. If you are willing to give your consent and take part, I will appreciate your participation and

the information that you are willing to provide.

Benefits and risks of participation

Please note that participation in this study is voluntary and there will be no direct benefits to anyone who participates in the interviews. Similarly there will be no negative consequences for individuals who do not want to be interviewed. We will not compensate any participant for taking part in the study. During the interview, you have the right to decline to answer any questions that makes you feel uncomfortable, or to stop the interview at any time. However, I would really appreciate it if you do share your thoughts and feelings about the questions I will be asking you.

Recording the interview

I would like to request your permission to audio-record the interview because I cannot write down all your answers quickly enough and might miss some important things that you will say in response to some of the questions that you will be asked if I do not record them. It is essential for you to know that the audio-recordings and notes will remain confidential and your identity will not be disclosed.
The recorded interviews will be transcribed and transcripts of interviews will bear the code and not the name of the interviewee. These audio-recordings and transcripts will be kept on a password protected computer. As per national requirements, the audio-recordings will be destroyed two years after the publication of the research findings.

Contact details

I will be happy to answer any question you have about this study. The contact details for the HREC Chair/ Administrator for participants should you wish to direct queries, concerns or complaints regarding the ethical activities surrounding the study are: Prof P Cleaton Jones, Tel 011 717 2301, email peter.cleaton-jones1@wits.ac.za or Ms Z Ndlovu Administrative Officer 011 717 2700/1234/1252 zanele.ndlovu@wits.ac.za. If you have questions about the research, you may also contact me as the Principal Researcher or the Research Supervisor:

Researcher:
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Tel: +27 (0) 11 717 2608, **Cell**: 071-687-8552
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Appendix 5 Information Sheet for PHC Facility Managers

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

Information Sheet for PHC Facility Manager

Hello, my name is Sabelile Muthathi. I am a PhD student at the School of Public Health of the University of the Witwatersrand. I am conducting this research as part of my doctoral studies.

Why am I doing the study?

There is little information on PHC facility managers' participation in decision making, to enable their role in policy implementation. I am doing the study to begin to address the gap. The aim of this survey is to obtain information on the perceptions of PHC facility managers on their involvement and participation, including the extent of influencing decisions related to their functions in the ideal clinics implementation. The information obtained could be used to inform or advocate for policy or health system improvements.

What am I asking you to do?

I invite you to complete questionnaire which will take you about **20 minutes to complete**. Alternatively, I could help you to complete the questionnaire. Your participation is voluntary. This is not a test, so there is no right or wrong answer. It is your opinions and experiences that are important. You may refuse to answer any questions that you don't feel comfortable answering.

How do I know that the information I give you will not get out to others?

The information that you give in the questionnaire will be kept confidential. The information will not be given to your employer and will not affect your work at the clinic. All questionnaires will be assigned a code. The answers given will be analysed and reported as group data.

Did I get permission to do the study?

Permission to carry out this study was obtained from the University of the Witwatersrand, Human Research Ethics Committee as well as from the relevant health authorities.

Are there any benefits and risks of participation?

Participation in this study is voluntary and there will be no direct benefits to anyone who complete the survey. Similarly there will be no negative consequences for individuals who do not want to complete the questionnaire. You will not be compensated for taking part in the study. You have the right not to answer any questions that make you feel uncomfortable or that you do not want to answer.

Whom do you contact if you want more information?

We will be happy to answer any question you have about this study. If you have any questions about your rights as a study participant, you may contact:

The University of the Witwatersrand,
Human Research Ethics Committee (HREC) chair,
Prof P Cleaton Jones
Email: peter.cleaton-jones1@wits.ac.za
Tel (011) 717-2301 or

Administrative officer
Ms Z Ndlovu
Email zanele.ndlovu@wits.ac.za,
Tel 011 717-1234.

If you have questions about the research, you may also contact:

Researcher: **Sabelile Muthathi**
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Appendix 6 Consent Form for Participation in the Study

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

CONSENT FORM FOR KEY INFORMANT INTERVIEW

I have been given the information sheet on the project entitled: ***Policy analysis of the implementation of the ideal clinics initiative in Gauteng and Mpumalanga Provinces***
I have read and understood the Information Sheet and all my questions have been answered satisfactorily.

I understand that it is up to me whether or not I would like to participate in the interview and that there will be no negative consequences if I decide not to participate. I also understand that I do not have to answer any questions that I am uncomfortable with and that I can stop the interview at any time.

I understand that the researchers involved in this project will make every effort to ensure confidentiality and that my name will not be used in the study reports, and that comments that I make will not be reported back to anybody else. I consent voluntarily to participate in the interview for this study. I have been given telephone numbers that I may call if we have any questions or concerns about the research.

Participant's signature: _____ Date: _____

Interviewer's signature: _____ Date: _____

Appendix 7 Consent Form for Audio-Recording the Interview

INFORMED CONSENT FOR AUDIO-RECORDING OF INTERVIEW

I have been given the information sheet on the project entitled: ***Policy analysis of the implementation of the ideal clinics initiative in Gauteng and Mpumalanga Provinces***

I have read and understood the Information Sheet and all my questions have been answered satisfactorily.

I understand that I can decide whether or not the interview should be audio-recorded and that there will be no consequences for me if I do not want the interview to be recorded.

I understand that information from the audio-recordings will be transcribed and transcripts will be given a code and my name will not be mentioned. I understand that if the interview is audio-recorded, the audio-recordings will be destroyed two years after publication of the findings.

I understand that I can ask the person interviewing me to stop audio- recording, and to stop the interview altogether, at any time.

I consent voluntarily for the researcher to record the interview.

Participant's signature: _____ Date: _____

Interviewer's signature: _____ Date: _____

Appendix 8 Interview Schedule

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

INTERVIEW SCHEDULE FOR KEY INFORMANTS

1. **Organisation / Location …….**

2. **Position/ Designation ……..**

3. **Date of interview ……..**

4. **Interviewer's name ……**

5. Result codes

01 = Completed , 02 = Respondent not available, 03 = Respondent refused;

04 = Partially completed

05 = Other .....

NB:

Circle all that apply

Write information required on the space provided

This interview schedule serves as a guide to explore with key informants

A. CONTEXT, RATIONALE AND PHILOSOPHY

1. What prompted the idea of the ideal clinic initiative?
   1.1. What does the ideal clinic initiative entail?
   1.2. What is the philosophy of the ideal clinic?
   1.3. Which values underpin the ideal clinic initiative?
   1.4. What are the goals of the ideal clinic initiative?
   1.5. How does the ideal clinic relate to other quality of care initiatives, such as the national core standards?
   1.6. How do you think your previous experience influenced the implementation of the ideal clinics initiative?
   1.7. How do you think your current position in governance influenced the implementation of the ideal clinics initiative?
   1.8. In your opinion what are the contextual factors that influenced the implementation of the ideal clinics initiative? Probe: (the role of culture, politics, economy and technology)

B. STAKEHOLDER PERCEPTIONS OF ROLES AND CLARITY

1. Please tell me about your role in the implementation of the ideal clinic initiative?
2. When did you get involved in the ideal clinics initiative? (year)
3. How has your previous experience influenced your participation in ideal clinic implementation?
4. Would you say that you needed to have any specific knowledge or skills in order to participate in the implementation of the ideal clinics?
5. What are the role and responsibilities of:
   5.1. National health department in the ideal clinic initiative?
   5.2. Provincial health department?
   5.3. Local government health department?
6. Is there a document that outlines these roles and responsibilities? If yes, could I have a copy?
7. In your opinion, are these roles and responsibilities of different government health departments clearly outlined?
8. What do you think will be your future role in the proposed NHI system? E.g. in relation to ideal clinics initiative.

C. DECISION MAKING

1. Have you been involved in the decision making on the ideal clinic?
2. (Probe when got involved: nature and the extent of your involvement?)
3. Have your ideas or comments been incorporated into the final policy documents?

D. ACCESS TO RESOURCES

1. Are there dedicated resources for the implementation of the ideal clinic initiative? Probe: finances, human resources, other
2. Who provides the resources (probe national, provincial, local government?)
3. What has been your experience with accessing resources required for ideal clinic initiative?

E. PROGRESS AND CHALLENGES

1. Could you tell us about the progress made with the ideal clinic initiative, since the launch of NHI pilots?
2. Are there any good practices that stand out in terms of clinics? What has accounted for these?
3. What were some of the challenges or constraints with the ideal clinic initiative, since launch of NHI pilots?

Probes (in relation to conceptualisation and implementation)

F. INTER-GOVERNMENTAL RELATIONSHIPS

1. Can you tell us how the national DOH communicated the decision on the ideal clinics to:
   1.1. Provinces
   1.2. Local government or health districts
2. Was there one focal person managing communications regarding the ideal clinic initiative?
3. Were communications via, telephone, emails, circulars, other?
4. Was there an agreed structure of how communications will be managed?
5. What was good about the process?

6. What were some of the challenges or constraints relating to interaction with other levels of government?
7. Who did you communicate with, for the purpose of seeking advice in the implementation of ideal clinic?
8. Who did you communicate with for the purpose of providing advice in the ideal clinic implementation?
9. Where did the resources for ideal clinic implementation come from?
10. Who gave you resources for the ideal clinic implementation?
11. Who updated you with information for ideal clinic implementation?
12. Whom did you update with information for the ideal clinic implementation?

CONCLUSION

Are there any other comments that you want to make about the implementation of the ideal clinic initiative?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Appendix 9 An Example of SNA Matrix

EXPLORING THE EFFECTIVENESS OF INTER-GOVERNMENTAL RELATIONSHIPS

(THE NETWORK) IN THE IDEAL CLINIC IMPLEMENTATION

Data collection tool: Participant Code:……

Actors **Codes**	Who did you communicate with for the purpose of seeking advice in the implementation of ideal clinic?	Who did you communicate with for the purpose of providing advice in the implementation of ideal clinic?	Who did you give support to for ideal clinic implementation?	Who gave you support for ideal clinic implementation?	Who updated you with information for ideal clinic implementation?	Whom did you update with information for ideal clinic implementation?
ND00						
ND01						
ND02						
ND03						
ND04						
GP00						
GP01						
GP02						
GP03						
TSP01						
TSPDM						
TSLG1						
TSLG2						
NB: If respondent mentions a person who is not in this list, capture the title of a person and level in government health departments						

Appendix 10 An Example of a SNA Roster

ROSTER OF ACTORS INVOLVED IN THE IDEAL CLINIC IMPLEMENTATION

No.	Level in Government	Title of person
1	National	Deputy Director General: Primary Health Care Services
2	National	Director: District Health System
3	National	Project Manager: Ideal Clinics
4	National	OHSC: CEO
5	National	OHSC: Executive Director
6	Provincial	Chief Director: District Health System
7	Provincial	Primary Health Care
8	Provincial	Project Manager: NHI
9	Provincial	Project Manager: Ideal Clinics
10	Local	Executive Director
11	Local	Director: Clinic Service
12	Provincial	District Manager
13	Provincial and Local	Quality coordinator
14	Province Managed Clinics	Deputy Director: Sub-district 1
15	Province Managed Clinics	Deputy Director :Sub-district 2
16	Province Managed Clinics	Deputy Director :Sub-district 3
17	Province Managed Clinics	Deputy Director :Sub-district 4
18	Province Managed Clinics	Deputy Director :Sub-district 5
19	Province Managed Clinics	Deputy Director :Sub-district 6
20	Municipal Managed Clinics	Deputy Director :Sub-district 1
21	Municipal Managed Clinics	Deputy Director :Sub-district 2
22	Municipal Managed Clinics	Deputy Director :Sub-district 3

Appendix 11 PHC Facility Manager Survey

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

PHC FACILITY MANAGER SURVEY

STATEMENT OF CONSENT

I have been given an information sheet and I understand the objectives of the study. I further understand that my responses will be kept confidential and that it is up to me whether or not to complete this questionnaire. It has been explained to me that even if I choose not to complete this questionnaire, I should still return it to the researchers and indicate so in the space below. My refusal to participate will in no way prejudice me**.**

I agree voluntarily to complete the questionnaire **(please tick). Yes [ ] No [ ]**

Signature/Initial:..... Date:.....

For official use only

1. **Province**		**O** Gauteng 1 **O** Mpumalanga 2
2. **District**		☐
3. **Type of clinic**	**O** Provincial 1 **O** Municipal 2	☐
4. **Primary Health Care Facility ID**		☐☐☐
5. **Participant number**		☐☐☐☐
6. **Date of Survey**	**DD/MM/YY**	☐☐☐☐☐☐
7. **Was the questionnaire completed?**	**O** No 0 **O** Yes 1	☐
8. Date checked:	**DD/MM/YY**	☐☐☐☐☐☐

SECTION 1: BACKGROUND CHARACTERISTICS

For official use only			
☐☐	**101**	How old are you? *(in completed years)*	_____ years
☐	**102**	Are you?	☐ Male……1 ☐ Female…2
☐	**103**	How many years have you been qualified as a Professional nurse?	……years
☐	**104**	What is your highest level of qualifications? ☐ Basic Nursing Diploma……1 ☐ Undergraduate Bachelor's degree…….2 ☐ Advanced diploma in PHC…..……..3 ☐ Post-graduate diploma in Nursing Admin…….4 ☐ Bcur. Ed. Admin……5 Other specify……6	
☐	**105**	Are you in a permanent position	☐ Yes……1 ☐ No…….0
☐	**106**	Is this your clinic of choice	☐ Yes……1 ☐ No…….0
☐	**107**	How many years have you worked in this clinic as a PHC facility manager?	……years (Answer 0 if less than 1 year)
☐	**108**	Did you receive any training about your role in the implementation of the ideal clinic initiative?	☐ Yes……..1 ☐ No……0
☐	**109**	What type of training did you receive?	☐ 1 day workshop…….1 ☐ Week long in-service training…….2 Other, please specify ……....

	110	Have you heard of NHI?	☐ Yes…….1 ☐ No…… .0
	111	How long have you been involved in the ideal clinic initiative	……Years (Answer 0 If less than 1 year)

SECTION 2: INVOLVEMENT IN THE IDEAL CLINIC CONCEPTUALISATION

201: Below is a list of statements about your involvement in the conceptualisation of the ideal clinic initiative. Thinking about your own experience, please indicate how strongly you agree or disagree with each statement by clicking on the appropriate choice.

PLEASE INDICATE A RESPONSE FOR EACH STATEMENT – DO NOT LEAVE ANY OUT.

	Statement	**Strongly Disagree**	**Disagree**	**Disagree slightly**	**Neither disagree nor agree**	**Agree slightly**	**Agree**	**Strongly agree**
a.	I understand the reason for the ideal clinic initiative	1	2	3	4	5	6	7
b.	I took part in the very first meetings to discuss the ideal clinic initiative	1	2	3	4	5	6	7
c.	I can describe the goals of ideal clinics initiative	1	2	3	4	5	6	7
d.	I took part in planning on how we can achieve ideal clinic status in my clinic	1	2	3	4	5	6	7

SECTION 3: PARTICIPATION IN THE IDEAL CLINIC IMPLEMENTATION

301: Below is a list of statements about your participation as a facility manager in the ideal clinic initiative. Thinking about your own experience, please indicate how strongly you agree or disagree with each statement by clicking on the appropriate choice.

PLEASE INDICATE A RESPONSE FOR EACH STATEMENT – DO NOT LEAVE ANY OUT.

	Statement	Strongly Disagree	Disagree	Disagree slightly	Neither disagree nor agree	Agree slightly	Agree	Strongly agree
e.	I took part in the very first meetings on the ideal clinic implementation	1	2	3	4	5	6	7
f.	I provide leadership in this clinic to achieve ideal clinic status	1	2	3	4	5	6	7
g.	I know what needs to be done to achieve ideal clinic status?	1	2	3	4	5	6	7
h.	I negotiate for extra resources to achieve ideal clinic status	1	2	3	4	5	6	7
i.	I have a plan to achieve ideal clinic status	1	2	3	4	5	6	7
j.	I give ideas to other clinics in the district on what steps to take towards ideal clinic status	1	2	3	4	5	6	7
k.	I feel proud to be associated with the ideal clinic initiative	1	2	3	4	5	6	7
l.	I think the ideal clinics is an excellent initiative	1	2	3	4	5	6	7
m.	I wish that the ideal clinic initiative started much earlier	1	2	3	4	5	6	7

SECTION 4: DECISION SPACE IN THE IDEAL CLINIC IMPLEMENTATION

This measure has been designed to assess how you as PHC facility managers view the space you have to influence decisions on the implementation of the vital elements of the ideal clinic.

When you tick the box on narrow, it means that you have little control or ability to ensure that the item or element is present in your clinic.

When you tick the box on moderate it means you have partial control on ensuring that the item or element is present in your clinic.

When you tick the box on wide it means that you have full control on ensuring that the item or element is present in your clinic.

Please answer EACH question by clicking ONLY ONE box and be sure to answer all questions even though some may seem very similar.

All answers are absolutely confidential and you will NOT BE identified.

This tool is derived from Bossert framework of mapping decision space.

	Vital element	**Narrow (You have little control)**	**Moderate (You have partial control)**	**Wide (You have full control)**
e.g.	**The space I have on influencing a decision so as to make sure that :** *A functional wheelchair and stretcher is always available,* is……(Moderate because I can order the wheelchair or stretcher and have partial control on whether it becomes available in the clinic)		☑	
	The space I have on influencing a decision so as to make sure that *sharps containers are disposed of when they reach limit mark is….*	1	2	3
	The space I have on influencing a decision so as to make sure that *sharps are disposed in impenetrable, tamperproof containers is……..*	1	2	3
	The space I have on influencing a decision so as to make sure that *there is at least one functional wall mounted room thermometer in the medicine room or dispensary is……..*	1	2	3
	The space I have on influencing a decision so as to make sure that *the temperature of the medicine room is recorded daily is……..*	1	2	3
	The space I have on influencing a decision so as to make sure that *the temperature of the medicine room is maintained within the safety range is ……..*	1	2	3
	The space I have on influencing a decision so as to make sure that *the cold chain procedure for vaccines is maintained is……*	1	2	3
	The space I have on influencing a decision so as to make sure that *90 % of the medicines on the tracer medicine list are available is……*	1	2	3
	The space I have on influencing a decision so as to make sure that *the resuscitation room is equipped with functional basic resuscitation equipment is…….*	1	2	3
	The space I have on influencing a decision so as to make sure that *the emergency trolley is restored daily or after each use is……..*	1	2	3

	The space I have on influencing a decision so as to make sure that *the oxygen cylinder with a pressure gauge is available in the resuscitation or emergency room is……..*	1	2	3

501 Do you have any further comments you wish to make about the ideal clinic initiative?

.....

.....

.....

.....

.....

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.....

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE.

Appendix 12 Fieldwork Manual

PROCEDURE MANUAL

FOR

POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES

Principal Investigator
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1. INTRODUCTION

This research study procedure manual sets out the data collection procedure for the study on **POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES.** This manual focusses on a procedure for conducting a survey among PHC facility managers in Tshwane and Gert Sibande districts of Gauteng and Mpumalanga provinces.

The survey examines the PHC facility manager's involvement, participation and decision space in the implementation of the ideal clinics initiative. The aim of the survey is to obtain information on the perceptions of PHC facility managers on their involvement, participation, and their extent of influencing decisions related to their functions in the ideal clinics implementation. The target group is PHC facility managers in the fixed clinics of the Gert Sibande and Tshwane districts of Mpumalanga and Gauteng Provinces. There are 68 PHC facilities in Tshwane districts and 51 facilities in Gert Sibande districts.

This procedural manual describes the field-worker's roles and responsibilities during planning and execution of field work, as well as quality control and troubleshooting during fieldwork.

2. PLANNING YOUR FIELDWORK

As you have weekly targets of PHC facilities to survey, you will not have time to waste.

2.1 Planning your route

You must plan fieldwork carefully to maximize the effectiveness of your time.

- Your field work manager will work with you to plan your first schedule. *The following are general rules for planning your schedule:*
- Plan your route so that you can visit as many PHC facilities as possible.
- Make sure that all PHC facility managers you are planning to visit are aware of your appointment.
- Prepare all your documents and fully charge the Tablet a day before data collection.
- Make sure you have fully charged your phone battery so you can be accessible to the fieldwork team.
- Have a working car charger as a backup or power bank.
- Have access to GPS to assist you to find the PHC facilities
- If a clinic does not appear on the GPS ask from the previously visited clinic.
- Map the distance between clinics to be visited per day, and prioritise clinics as per preferred quick route.

- Wear comfortable shoes you may stand for a long period on time, while waiting for the Facility Manager to attend to you.
- If you have only a little work left in one area, combine it with a trip to a nearby area, if possible.

2.2 Planning field materials

Each day, before you start, you must verify that you have all of the documents you will need. You will need the following materials on all visits:

- I.D. badge
- List of PHC facilities with addresses and contact details
- Data collection manual
- Letters of authorization
- Information letters to give to the participant
- Fully charged Tablet
- Refusal log sheets
- A thank you gift

Information Box 1

- ***Make sure that you have enough documents to cover the planned trips.***

3. EXECUTION OF THE FIELDWORK

3.1 Professional approach

When you arrive at a PHC facility, your approach and appearance will establish an initial impression that could encourage cooperation or estrange a participant, be sure to make a good first impression. Alleviate any fear or concern about participating; present a relaxed, confident, and professional approach.

For example: *On your arrival at the Facility's help desk, introduce yourself, show your ID card, request to see a facility manager, explain your reason for the visit*.

3.2 Establishing rapport

Once you get to the facility manager's office, introduce yourself again and establish rapport. Explain the purpose of your visit and the information on the information sheet. (See, *the example of the script for fieldworkers in the information Box 2).* Always be sensitive to their situation. Be positive, confident, and persuasive, but do not be aggressive. Be alert for possible refusal to participate and manage objections (*see* **section 4** for trouble shooting).

3.3 Completion of the questionnaire

Information Box 2



Script for fieldworker when requesting facility managers to participate

My name is _____. I am from the WITS School of Public Health. I am collecting data for a study on the POLICY ANALYSIS OF THE IMPLEMENTATION OF THE IDEAL CLINICS INITIATIVE IN GAUTENG AND MPUMALANGA PROVINCES. This study requires us to get the views of PHC facility managers on their participation, involvement and decision space in the implementation of the ideal clinics initiative. I am inviting you to fill in a questionnaire on this tablet; the questionnaire is very short and will take around 20 minutes of your time to complete.

We have obtained ethics approval to conduct this study, and the provincial and local authorities have also given their approval. The questions are not a test, so there is no right or wrong answers. It is your opinions that are important. Everything that you say will be treated as private and confidential. Your name will not be used when the results of the study are presented or written up.

Your participation is completely voluntary. There will be no direct benefit to you if you participate in this study, but we hope that the information collected will be helpful in improving your future involvement in the implementation of health policies. There will be no negative consequences if you do not want to participate.

This particular document is an information sheet which explains the study in greater detail.

(GIVE THE FACILITY MANAGER THE INFO SHEETS).

DO YOU HAVE ANY QUESTIONS?

Encourage the clinic manager to complete the questionnaire at the same time.

After your explanation of the study, the participants may agree or refuse to participate. If the participant **agrees** to participate, you must hand in a tablet to her and show her how to complete the questionnaire electronically.

Information Box 3

Remember for most facility managers this may be their first time participating in a research study. Please explain the following to the facility manager:

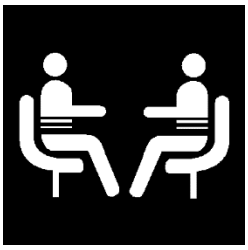
- ***How to indicate an answer***
- ***How to complete all the questions***
- ***The importance of completing all the 4 sections in the questionnaire***
- ***That she/he must ask any questions or assistance from you if needed***

The facility manager may have difficult in completing the form and require you to complete it while they give you answers, just like in an interview format.

If a facility manager requires you to assist on completing the form, see the section below.

3.4 Assistance on completing the questionnaire

Only follow these steps if the PHC facility manager wants assistance with completing the form otherwise they should be able to complete it on their own





At this point, you (the interviewer) should be in possession of the tablet and follow the steps below:

Information Box 4

1. **You must be already logged on as a data collector on Redcap**
2. **Select – "my projects"**
3. **Choose the project named : (Policy Analysis of the implementation of the ideal clinics initiative)**
4. **Click on : Collect data**
5. **Select the instrument entitled: (PHC facility managers)**
6. **Click on : Create a new record**

The first section of the survey will appear

7. **Read aloud the statement of consent, ask the Facility manager to make a choice such as (Yes /No)**
8. **Scroll down to the next section**

(In all the following sections, you will ask the facility manager to say her choices, do not choose for her)

9. **Explain section 1:(Background Characteristics), read each statement and click the selected choices**
10. **Explain Section 2: (Involvement in the ideal clinic conceptualisation), read each statement and click the selected choices**
11. **Explain Section 3: (Participation in the ideal clinic implementation),read each statement and click the selected choices**
12. **Explain section 4: (Decision space in the ideal clinic implementation), read each section and click the selected choices**
13. **Section 4 question no. 501, requires the participant to provide general comments about the Ideal clinic initiative, there are three options in this section:**

Option 1: the participant may type the comments on the tablet
Option 2: the participant may audio record his comments
Option 3: you may give the participant a hard copy form to complete and you type the information on her behalf on a tablet.

14. **Now check if you have completed all sections (there are four sections in this survey)**
15. **Indicate the completion status of the form as : complete or incomplete**
16. **Complete the section entitled : FOR OFFICE USE ONLY**
17. **Click on save and send. (This instruction will send the completed form to Redcap server)**
18. **Thank the facility manager and give her a thank you gift.**

- **PLEASE DO NOT FALSIFY INFORMATION OR COMPLETE THE QUESTIONNAIRE ON YOUR OWN. WE WILL BE ABLE TO PICK IT UP AND IT IS A SERIOUS OFFENCE!**
- **REMEMBER TO COMPLETE THE SECTION ENTITLED: FOR OFFICE USE ONLY**

If the PHC facility manager refuses to participate, (*see* **section 4.2**: under trouble shooting)

4. TROUBLE SHOOTING

4.1 Overcoming objections

Listen carefully to the participants' comments, and try to determine the basis for his or her concerns or objections. Then, target your responses to those concerns or objections. Listening is one of the most important skills at this point**.** Acknowledge the truth in the participants' statements, and then build on the statement with additional information that addresses the concern. Here are some common reasons for objections:

Is he / she worried about lack of approvals for data collection? Provide evidence.

Is she / he worried about the time to be wasted? Request to assist in an interview format.

Was she / he not informed about the study? Apologise for such inconvenience and explain that efforts were made to contact each facility telephonically and the district managers were also contacted.

4.2 Dealing with refusal

If, despite your best efforts, the prospective participant refuses to participate in a survey, accept the refusal courteously and thank the person for his or her time. Do not pressurize, argue, or otherwise alienate him or her. Your goal should be to leave the door open for you or someone else to recontact the participant at a later date and secure a promise of cooperation. Make a **note** of the refusal on the log sheet.

4.3 Refusal log sheet (example)

Note this form should only be filled in if the facility manager refused to participate in the study after all your attempt to motivate for her participation

No.	Date	PHC Facility	Authority (LA/Prov)	Reason (if provided)/ other notes

4.4 Managing difficult questions

Please answer all questions that participants may have. If you do not know the answers to any questions please contact **Sabelile** on 0716878552.

5. DATA QUALITY CONTROL

The information below is to allow you to understand measures which are in place to ensure the quality of data collected, so you may also understand your role and contribution in ensuring high quality of data.

- The oversight of this study is undertaken by the LESEDI committee. This committee facilitates the research management and coordination of three major projects funded by Atlantic Philanthropies (Leadership, Management and Governance, Social Exclusion and Data Utilisation in Primary Health Care facilities). The LESEDI committee members have provided participatory inputs related to the conceptualisation and development of this study. The fieldwork manager accounts to this committee regarding the field work progress made.
- The overall project management of this study has been facilitated under the advisory leadership of the Principal Investigator of all the Atlantic Philanthropies projects, Prof Laetitia Rispel.
- The overall fieldwork supervision and quality control will be done by Sabelile Muthathi (Principal researcher), whom you report to.
- Your training in fieldwork will be done to ensure acceptable standards of practice.
- For orientation purposes, you will be paired with your fieldwork manager for data collection of at least one or two clinics, to allow you to observe expected practice.
- Weekly meetings between fieldworker and the fieldwork manager will be done for updating weekly progress.
- As a fieldworker you are responsible to double check completed forms for data verification after each clinic visit.
- You will submit reports on collected data in weekly basis during your progress meetings.
- The fieldwork manager will scrutinize the completed data from the main project Redcap database in daily basis to verify the data quality
- The quality of data will inform the quality of the study findings. The study findings will influence recommendations for policy implementation and will be shared with various stakeholders. As a result, the truth and accuracy of this data is very important.

6. COMPLIANCE WITH RESEARCH ETHICAL STANDARDS

Below is the information you need to know, so as to comply with required research ethical standards:

- This research has been approved by the Human Research Ethics Committee of the University of the Witwatersrand, in Johannesburg.
- The following Government Health Departments' authorities (Gauteng and Mpumalanga Provincial Departments of Health, City of Tshwane and Gert Sibande local governments) also gave permission for the study to be conducted.
- All potential participants must be informed about their rights before participating in this

study. You must tell them that participation is voluntary and that they are free to withdraw from the study at any time.

- You must give potential participants an information sheet to read and a consent form to sign if they agree to participate in the study. It is helpful to memorise the information sheet and the consent sheet so that if the prospective participant chooses not to read it you can explain it in a conversational way.
- Make sure that you maintain confidentiality throughout the study. Explain to the study participant that you are not a staff member of any health department and they are guaranteed that no one will know the answers that they give us so that he or she is at ease. Let the participant know that all data collected will be assigned a code and will be used for study purposes only. Also that the answers they give will be combined and analysed to look for common themes and experiences. All collected data will be password protected to ensure confidentiality.
- Make sure that you give participants the name and telephone number of the principal investigator should they have any major concern about the study.
- Never discuss any aspect of a particular participant with anyone other than project team. If you need advice or support regarding a participant, speak with your Field work manager.
- Never give survey-specific information to unauthorized persons, both in writing, by phone, or in person. Keep all documents safe and out of view. Keep all project-related materials in a secure location at all times.

7. GENERAL TIPS AND CONCLUSION

- **Planning-**make sure there are sufficient number of copies for all your handout documents. Try to avoid having to make copies of any document at the PHC facilities- MAKE SURE THAT ALL THE PAGES ARE THERE, in the unforeseeable event of making copies at clinics. Anticipate that you will need to introduce yourself to the facility reception and to the facility manager prior to issuing them with the questionnaire (this may take anything between 5-20 minutes). The questionnaire takes 15 – 20 minutes to complete. Travel between each clinic should be roughly 30 minutes, which means that you can reasonably complete the field work of 3 clinics each day if you take these time factors into consideration. If during the day, there is an indication that the scheduled PHC facilities will not be completed, start communicating this issue as soon as you are aware of a delay of an hour.
- **Working as a team and pro-active communication** are critical.
- **Punctuality** is important; arrive early before the scheduled appointment with PHC facility managers.
- **Facility managers should be given sufficient information about the study on the day you arrive in the clinic.** We need to demonstrate enthusiasm of the study, talk about how important it is to do the study and the planned feedback. Acknowledge that people are doing us a great favour, often by giving us so much of their time and goodwill.
- **Checking questionnaires for completeness is critical** in the case of self-administered questionnaires: once the facility manager has completed it - you will not have the opportunity to fill in missing details once you have left the facility.
- Aim to have **100% response rate** in each Region.

Remember

- ✓ **Please do not hesitate to contact Sabelile Muthathi on 071 6878552, for any queries or problems.**
- ✓ **To enjoy field work**

8. SUMMARY OF CHECK LIST:

BEFORE CLINIC VISIT	WHAT YOU NEED	NUMBER REQUIRED	CHECK
Clearance certificates	Ethics Clearance from WITS	1	
	Permission letter from Provincial department of Health	1	
	Permission letter from local government health department		
Information Sheets		1	
Log sheet	Refusal Log sheet	1	

DURING CLINIC VISIT	SUMMARY OF STEPS		
1)	Introductions (Clearance certificates)		
2)	Invitation to participate		
	a) Provide Facility Manager (Acting facility manager) with an electronic self-administered questionnaire. b) Make sure the statement of consent section is completed c) Assist in completion , if necessary d) Verify data accuracy and completeness		
3)	Thank participants and exit the clinic		

At the end of each day, verify all completed records if they have been sent to the server. Make notes and comments about the day's experience such as how many clinics you planned to visit, and how many clinics were actually visited, experienced challenges. Refer any issues to the fieldwork manager.

Appendix 13 Health Policy and Planning Permission

From: jnls.author.support@oup.com [mailto:jnls.author.support@oup.com]
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Kind regards,
Meghan

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Appendix 15 Declaration: Student's Contribution to Articles

Declaration: Student's contribution to article(s) and agreement of co-author(s)

I, **[Immaculate Sabelile Muthathi]**, student number **[0101241Y]**, declare that this Thesis is my own work and that I contributed adequately towards research findings published in the article(s) stated below which are included in my Thesis.

Signature of Student ..... **Date** 22/10/2020

Name of Primary Supervisor.....Professor Laetitia Rispel

Signature of Primary Supervisor ..... **Date** 22/10/2020

Agreement by co-authors: By signing this declaration, the co-authors listed below agree to the use of the article(s) by the student as part of her Thesis. In cases where the student is not the 1st author of a published article, the primary supervisor must explain (under comments) why the student is entitled to use the paper for his/her degree purposes.

Article 1: Title: ... 1. Decision space and participation of primary healthcare facility managers in the Ideal Clinic Realisation and Maintenance programme in two South African provinces.

Journal name, year, volume and page numbers: Health Policy and Planning,2020, 35 (3): 302-312.

Authors	Name	Signature	Date
1st author	Muthathi, I.S		22/10/2020
2nd author	Levin, J		
3rd author	Rispel, L.C.		22/10/2020
4th author			
5th author			
6th author			

Comments by primary supervisor:

.....

.....

Article 2: Title: ... 2. Policy context, coherence and disjuncture in the implementation of the Ideal Clinic Realisation and Maintenance programme in Gauteng and Mpumalanga provinces of South Africa.

Journal name, year, volume and page numbers: Health Research Policy and Systems,2020, 18 (55): 1-15

Authors	Name	Signature	Date
1st author	Muthathi, IS.		22/10/2020
2nd author	Rispel, L.C.		22/10/2020
3rd author			
4th author			
5th author			
6th author			

Comments by primary supervisor:

.....

.....

1

To whom it may concern

I hereby give my approval for Sabelile Muthathi to submit the publication entitled

“Decision space and participation of primary healthcare facility managers in the Ideal Clinic Realisation and Maintenance programme in two South African provinces”

Health Policy and Planning (2020),35 (3): 302-312

As part of her PhD thesis

I am a co-author on the publication

Yours Sincerely

Prof Jonathan Bernhard Levin,

Division of Epidemiology and Biostatistics,

School of Public Health

Signed



22nd October 2020

Appendix 16 Turnit-in Report

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