

**Towards Universal Health Coverage (UHC) policy roll-out
experience in South Africa: how and why policy-practice gaps
come about in a UHC context**

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You cannot apply a technical solution to a human challenge
Author Unknown

Dedicated to my dear family

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List of Abbreviations

BRICS	Brazil, Russia, India, China and South Africa
CIT	Contextual Interaction Theory
DHS	District Health System
DHA	District Health Authority
DHIS	District Health Information System
DHS	District Health System
EMRS	Emergency Medical Rescue Services
GDP	Gross domestic product
HSS	Health Systems Strengthening
HIV	Human Immunodeficiency syndrome
KZN	KwaZulu-Natal
LMIC	Low and middle-income countries
MDG	Millennium developmental goals
NHI	National Health Insurance
NHLS	National Health Laboratory Services
OOP	out-of-pocket-payment
OHSC	The Office of Health Standards Compliance
PHC	Primary Health Care
SA	South Africa
TOC	Theory of change
SDGs	Sustainable development goals

TB	Tuberculosis
UHC	Universal Health Coverage
UNITAS	Universal Coverage in Tanzania and South Africa
WHO	World Health Organization

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Why are there varying UHC policy implementation states and outcomes among facilities in the same district? the process and lessons learned from a National Health Insurance Pilot site

Janet Michel, Nthabiseng Mohlakoana, Till Bärnighausen, Fabrizio Tediosi, David Evans, Di McIntyre, Hans T.A Bressers, Marcel Tanner

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How actors implement: Testing the Contextual Interaction Theory in a UHC pilot district South Africa

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1. Summary

All countries world-wide are striving towards Universal Health Coverage (UHC). South Africa embarked on this bold and new direction, piloting National Health Insurance (NHI) in 2011. Two vehicles and strategic interventions selected to reach UHC are Primary Health Care (PHC) re-engineering and NHI. The goal of UHC is to ensure that everyone has access to appropriate, efficient and quality health services without the risk of impoverishment or financial catastrophe. The aim of this thesis was to contribute to a better understanding of policy implementation in a UHC context in one pilot district in South Africa. In order to explain how the policy-practice gap comes about, actor experiences were sought. Utilizing Contextual Interaction Theory (CIT) as a framework for analysis, this thesis sought a more in-depth understanding on 1) What bottlenecks and challenges actors experienced in their current role as a UHC policy maker/ implementer? (Information, motivation, power, resources, interactions and others) 2) how and why policy-practice gaps come about from actors' policy implementation experience and 3) What needs to be done to reach UHC?

The study was embedded in a broader project, Universal Coverage in Tanzania and South Africa (UNITAS). A qualitative case study design utilizing a theory of change approach was adopted and data was collected during three phases between 2011 and 2015. Our findings revealed a discrepancy between challenges health workers had on the ground and health systems strengthening initiatives that were being implemented. This in part due to the non-involvement of front-line staff in policy making. To that end we developed and proposed a Health Systems Strengthening (HSS) Framework to aid the process of identifying needed HSS initiatives in a PHC context that is nurse led.

Findings also revealed five groups of factors bringing about policy-practice gaps; (i) Primary factors stemming from a direct lack of a critical component for policy implementation, tangible

or intangible (resources, information, motivation, power), (ii) Secondary factors stemming from a lack of efficient processes or systems (budget processes, limited financial delegations, top down directives, communication channels, supply chain processes, ineffective supervision and performance management systems), (iii) Tertiary factors stemming from human factors (perception and cognition) and calculated human responses to a lack of primary, secondary and or extraneous factors, as coping mechanisms (ideal reporting and audit driven compliance with core standards), (iv) Extraneous factors stemming from beyond the health system (national vocational training leading to national shortage of plumbers) and (v) an overall lack of systems thinking.

Noteworthy among factors fuelling policy-practice gaps are human factors, perception and responses of actors in the system to a lack of resources, processes and systems, through among others, ideal reporting and audit driven compliance with core standards, bringing about an additional layer of unintended consequences, further widening that gap.

Actors identified that current systems e.g. supply chain, supervision are obsolete as they were designed during a different time period demographically, epidemiologically and technologically. Actors are recommending health systems transformation rather than health system strengthening, meaning going back to the drawing board to design systems based on today's challenges and scenarios. The current lack of progress and stagnation in the health system has been blamed on leadership gaps in all sectors. More research is needed to explore leadership development approaches that produce results on the ground. The findings also revealed that policy implementers do engage with policy upon receipt. They then do a policy-context audit after which they arrive at a decision and act either through policy adaptation, partial implementation to full implementation.

In conclusion, this thesis shares some implementation experiences worth taking into consideration when implementing UHC policies. The first one is the role of leadership in

implementation; hence we propose adding leadership to the CIT central tenets to become Information, Motivation, Power, Resources, Interactions and Leadership. Leadership was alluded to repeatedly by actors as a critical ingredient. We propose utilizing a systems approach to addressing health system challenges. Factors fuelling policy-practice gaps are multi-faceted and interrelated so much so that dealing with these systemically will go a long way in making UHC a reality.

2. INTRODUCTION

This thesis aims to contribute to a better understanding of how policy-practice gaps come about in a Universal Health Coverage context, by exploring the implementation experience of both policy makers and policy implementers. The first chapter provides an overview of the key universal health care challenges as experienced by other countries that adopted UHC. This is followed by health system challenges on the ground in South Africa and the outline of envisaged national health reforms aimed at achieving UHC until 2025. Subsequently, an overview of PHC, one vehicle chosen to reach UHC, the reasons why PHC failed the first time around and the implementation gap as identified in literature are given.

Universal health coverage (UHC) – ensuring “that all people obtain the health services they need, of good quality, without suffering financial hardship when paying for them” – is fast gaining momentum (L Brearly, R Marten, T O’Connell, 2013; McIntyre, 2015). A significant number of countries, at all levels of development, are embracing the goal of UHC as the right thing to do for their citizens. Adopting UHC is primarily a political, rather than a technical issue and being poor is not an excuse to reject UHC as a goal for health systems (Feigl A, Basu S, and McKee M., 2010). Brazil, the Russian Federation, India, China and South Africa – the countries known as BRICS – have adopted different paths to universal health coverage and they began travelling along those paths at different points in time. Brazil and the Russian Federation embarked on this process over two decades ago. China and India are relatively new entrants, having started their reforms in the last decade, and South Africa has only recently begun the reform process (Rao KD, *et al.*, 2014).

Early UHC adopters include Mexico, Thailand, Chile, Turkey and more recently, Ghana, Cambodia and Rwanda (L Brearly, R Marten, T O’Connell, 2013). Though identifying an equitable pathway in any country is no easy task, (L Brearly, R Marten, T O’Connell, 2013) the cost of inaction is high and the current momentum must be seized to maximise the opportunity

of country commitments to UHC to promote equity (Anand S, Desmond C, Marques FNH., 2012; UNICEF, 2016). Setting priorities and managing trade-offs is complex and challenging, and must start with the existing context, including: the policy landscape; structures of the health system, fiscal space, key interest groups, disease burden and distribution of health needs and political landscape (L Brearly, R Marten, T O'Connell, 2013)

Public policy or government policy is defined as “whatever governments choose to do or not to do”(Burke *et al.*, 2012). Policy implementation refers to the mechanisms, resources, and relationships that link policies to program action (Hardee K *et al.*, 2012). Many barriers can inhibit policy implementation even when there is widespread agreement about the merits of an intervention (Mangham and Hanson, 2010; Kohl, 2014). The barriers may present themselves at many levels of the system. Policy failure can result from bad execution, bad luck, or bad policy. It may also result from too much policy that simply overwhelms those charged with its execution. At times external circumstances may be so adverse that bad luck is identified as the reason for failure. The policy itself may be defective, in the sense of being based on inadequate information, poor reasoning, or unrealistic assumptions about what is possible with the human and financial resources available (Hunter, Killoran and NHS Health Development Agency, 2004). In low and middle-income countries, barriers to implementing policy include complexity of the intervention, lack of consensus; limited human resources, leadership, management and health system capacity; poor application of proven diffusion techniques; lack of engagement of local implementers and of the adopting community; and inadequate integration of research into implementation (Yamey, 2012). All of these issues also apply in various forms to the South African Health sector.

In many developing countries, strategies for the health sector are guided by sector-wide approaches and related funding arrangements, such as poverty reduction strategies. These macro-level plans usually do not delve into the implementation details of specific health

services (Mangham and Hanson, 2010). Operational policies are found at every level in the health system, and their consequences can be seen in every service delivery outlet because they govern how resources such as personnel, commodities, equipment, and transportation are deployed. It is worth noting that many constraints to implementation occur at an operational level.

2.1 Key Universal Health Coverage challenges

2.1.1 Health financing, limited resources and high out of pocket payments

Financial resources are extremely limited in developing countries, and resources are often poorly or inequitably distributed among regions and urban/rural areas (*WHO in Uganda Country Cooperation Strategy 2016-2020*, 2016). Although the Member States of the African Union agreed to allocate at least 15% of their national budgets to health (The 2001 Abuja Declaration), only five countries in the Region have been able to do so, including South Africa. In many African countries, the resources available for health are less than required to deliver the National Minimum Health Care Package. Households continue to carry a heavy burden with a high Out of Pocket expenditure on health (*WHO in Uganda Country Cooperation Strategy 2016-2020*, 2016). While gains have been made, other countries like Chile with a decade-long UHC ambition, are also still struggling with high out of pocket payments (OOP) payment. China is another country that has implemented a series of pro-UHC reforms in the past decade but still cost escalation is a particular concern, with 15% annual growth of medical expenditures. Another challenge is the persistent, elevated level of catastrophic expenditure for people on a low income (Boerma *et al.*, 2014). BRICS countries on the other hand have increased government spending on health and have provided subsidies for the poor. Such improvements however do not necessarily guarantee universal coverage in the absence of efficiency and accountability. For BRICS, including South Africa, the biggest challenge remains the effective translation of new wealth into better health outcomes (McIntyre, Doherty and Ataguba, 2014; Rao KD, *et al.*, 2014)

2.1.2 Leadership and other system challenges

Governments and health leaders in Africa have conveyed a constant message that those leading and managing health systems are not sufficiently prepared to succeed in the leadership roles they now occupy (Chabikuli *et al.*, 2005). Capacity in planning, management and human resource development remains weak especially at the decentralized levels in most of the countries in Africa. Gaps in human resources for health, in numbers, skill mix and distributions continue to pose a challenge for effective service delivery. Challenges remain in achieving harmonized procurement and supply chain management and strengthening monitoring and evaluation systems to facilitate collection of good quality data, analysis and use at all levels. Although improving health is a multi-sectoral effort, structures to foster coordination and collaboration with health related sectors remain inadequate (*WHO / Universal Health Coverage at the top of the global health agenda*, 2012; *WHO in Uganda Country Cooperation Strategy 2016-2020*, 2016)

Hardee et al. (2012) summarized implementation challenges as follows:

- Resource mobilization challenges, such as constrained budgets, weak or no insurance mechanisms, and inability to collect fees.
- Weaknesses in infrastructure and support systems, including infrastructure and equipment; drugs, supplies, and logistics systems; transportation and vehicles; health information systems; and coordination and referral mechanisms. Officials and staff of central health ministries` often struggle with managing information overload, competing priorities, and large health budgets and external aid.
- Lack of qualified managers and staff (too few and poorly distributed), low level of technical knowledge and inadequate supervision, inadequate pre-service education and in-service training, low motivation, and weak performance incentives.

- Laws, policies, and regulations, such as import restrictions, licensing, user fees, technical standards, and service protocols that conflict with or inhibit adoption of a new practice.
- Lack of clear policies guiding all levels of the health system related to program implementation.

Cultural sensitivity or resistance to a new policy or practice (among policymakers, providers, and clients) (Hardee K *et al.*, 2012)

2.1.3 Barriers to access quality health services

Ensuring access to quality health services is a central tenet of UHC and, in many parts of the world, lack of access continues to be a major concern. Barriers to access take a variety of forms, the most obvious being the basic lack of quality health services, but there are also obstacles such as distance to the nearest health facility, restricted opening hours at facilities or overcrowded facilities that impose long waiting times. The cost of the health services may also deter use, especially where direct out of pocket payments (OOP) is involved. Other significant barriers include: lack of information on available services, lack of confidence in facilities and staff, and socio-cultural barriers including constraints related to gender or age, beliefs and cultural preference (Boerma *et al.*, 2014). Two countries that have embraced UHC, Colombia and Brazil continue to experience some of these challenges. Greater geographical and economic barriers and the need for authorization from insurers are some of the UHC barriers in Colombia while as limited availability of health centres, doctors, drugs to chronic underfunding of the public system have been identified in Brazil (Garcia-Subirats *et al.*, 2014). In Africa, many countries including Algeria, Cameroon, Central African Republic, Democratic Republic of the Congo, Kenya, Niger, Nigeria, Senegal, South Africa and Uganda cited key obstacles to accessing care as cost of health care, long distances to facilities, inadequate and unaffordable transport systems, poor quality of care, poor attitude of health service providers and an overall

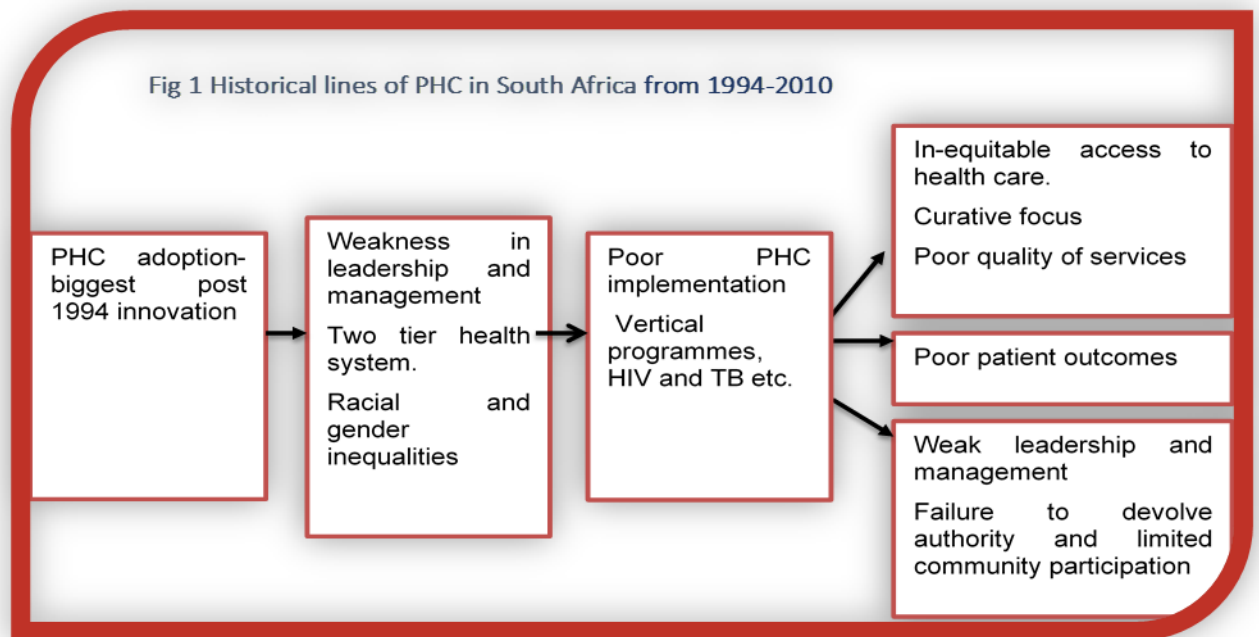
inadequacy of drug supply (*WHO. Health systems in Africa: community perceptions and perspectives: the report of a multi-country study, 2012*)

2.2 PHC in South Africa

Primary Health Care as an approach to deliver health care was initially adopted by the South African Government in 1994 (Harrison, 2010). Since then, much has been done to gear up the health system to implement PHC. Nine provincial departments of health have been established out of the fragmented state of pre-1994 South Africa. Racial and gender inequalities in the managerial structures have been largely eliminated. There has been a large investment in infrastructure and building of new clinics and facilities to make health services more accessible. Services have been massively scaled up to deal with the burden of disease that includes the HIV and associated TB epidemic (Harrison, 2010). Why then did South Africa not achieve PHC the first-time round? According to the literature, insufficient attention has been given to the implementation of the PHC approach that includes taking comprehensive services to communities, emphasising disease prevention, health promotion and community participation. For the most part there has not been a population focus and insufficient attention has been given to the improvement and the measurement of health outcomes. The massive tsunami of HIV is in part to blame for having diverted much energy, time and resources from focusing on PHC and improving health systems. PHC implementation has been fraught with obstacles including failures in leadership and stewardship and weak management that have led to inadequate implementation of what are often good policies (Donald Berwick *et al.*, 1997; Leader, 2011; Ellokor S and Gilson L, 2012)

According to Harrison (Harrison, 2010), the district based system was one of the biggest post 1994 innovations making health management more responsive to local conditions and distributing resources more equitably. It's success has been hamstrung by the failure to devolve authority fully and the erosion of efficiencies through lack of leadership and low staff morale (Harrison, 2010). Below is a diagrammatic summary of PHC in SA from 1994-2010.

Figure 1: Historical lines of PHC in South Africa from 1994-2010 (simplified)



2.2.1 Re-engineering PHC, a second attempt

In 2011, The Minister of Health introduced re-engineering PHC after the realization that unless there is fundamental change in the way in which the health sector functions, South Africa was unlikely to achieve the MDG health indicators for infant, under-five and maternal mortality rates nor is it likely to achieve the MDG goal related to HIV and TB.

The current health system faces a myriad of challenges, among these being the worsening quadruple burden of disease and shortage of key human resources. The public sector has underperforming institutions that have been attributed to poor management, underfunding, and deteriorating infrastructure (Department of Health, 2015). The South African Health review identified three common areas of concern, namely;

- A greatly increased burden of disease, primarily related to HIV and AIDS.
- Significant areas of weakness in health system management
- Poor health outcomes relative to the country's wealth and health expenditure (Leader, 2011)

2.2.2 Overburdened Public facilities

Over 80% of South Africans have no health insurance and have no choice but to seek treatment at government hospitals and clinics. The burden on the public health system is huge. Problems linked to health financing biased towards the privileged few have still not been adequately addressed. Post-1994 attempts to transform the healthcare system and introduce healthcare financing reforms were thwarted. This has entrenched a two-tiered health system, public and private, based on socio-economic status and this system continues to perpetuate inequalities in the current health system. The two-tiered system is unsustainable, destructive, very costly and highly curative or hospicentric (Department of Health, 2015)

2.2.3 Multiple interconnected transitions

Like many other African countries, South Africa is in the midst of a multiple interconnected social, economic, epidemiologic, demographic, technological, institutional and environmental transitions. These changes are having important impacts on health and well-being and on the capacity of health systems to respond to health-related problems. Continuation of free-market policies, inadequate economic growth, rapid urbanisation, migration, corruption, and poor management of public services threaten disparities to widen. Most South Africans remain severely impoverished despite social grants, with inferior access to healthcare (excepting HIV/AIDS care) (Benatar, 2013). The National Health Insurance white paper summarises the structural problems in the South African health system as follows;

- Cost drivers in the public health sector namely human resources, pharmaceuticals; laboratory services; blood and blood products; equipment; and surgical consumables.
- Costly private health sector
- Poor quality of health services in the public sector
- Curative hospi-centric focus of the health system
- Mal-distribution and inadequate human resources
- Fragmentation in funding pools

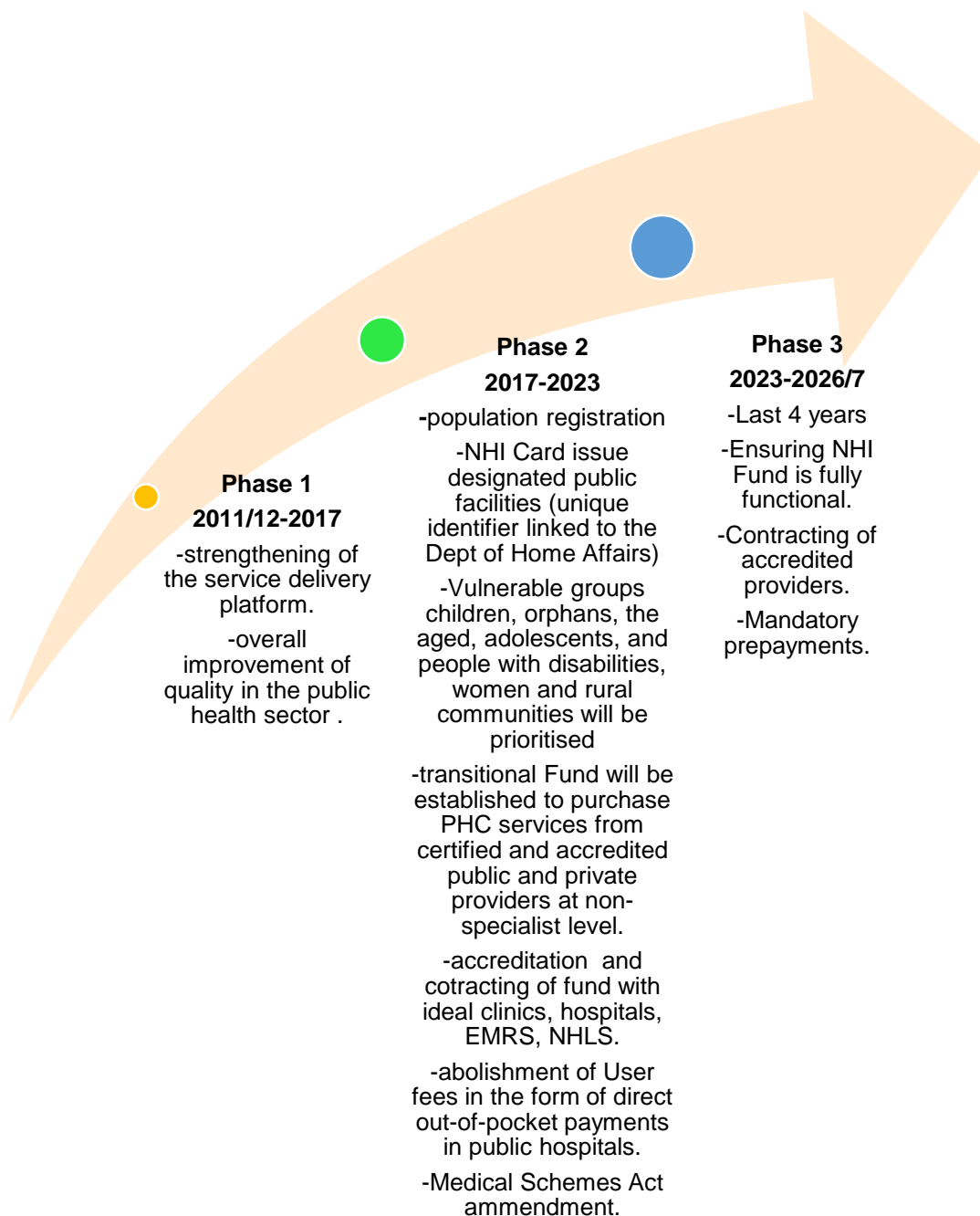
- Out-of-pocket payments and Financing systems that punish the poor (Department of Health, 2015).

In-order to address the mentioned imbalances, the government came up with multiple reforms aimed at achieving UHC. National Health Insurance (NHI) is a health financing system that is designed to pool funds to provide access to quality, affordable personal health services for all South Africans based on their health needs, irrespective of their socioeconomic status. NHI is intended to ensure that the use of health services does not result in financial hardships for individuals and their families (Department of Health, 2015).

2.3 Current Reforms in South Africa

Two strategic vehicles selected to achieve Universal Health Coverage (UHC) are re-engineering PHC and National Health Insurance. These reforms are currently being piloted in 11 pilot districts phased over a 14 year period since 2011 (Department of Health, 2015). The first five years were reached at the end of year 2016-2017. See diagrammatic summary below;

Figure 2: Summary of National Health Insurance Pilot envisaged phases: 2011/2-2026/7



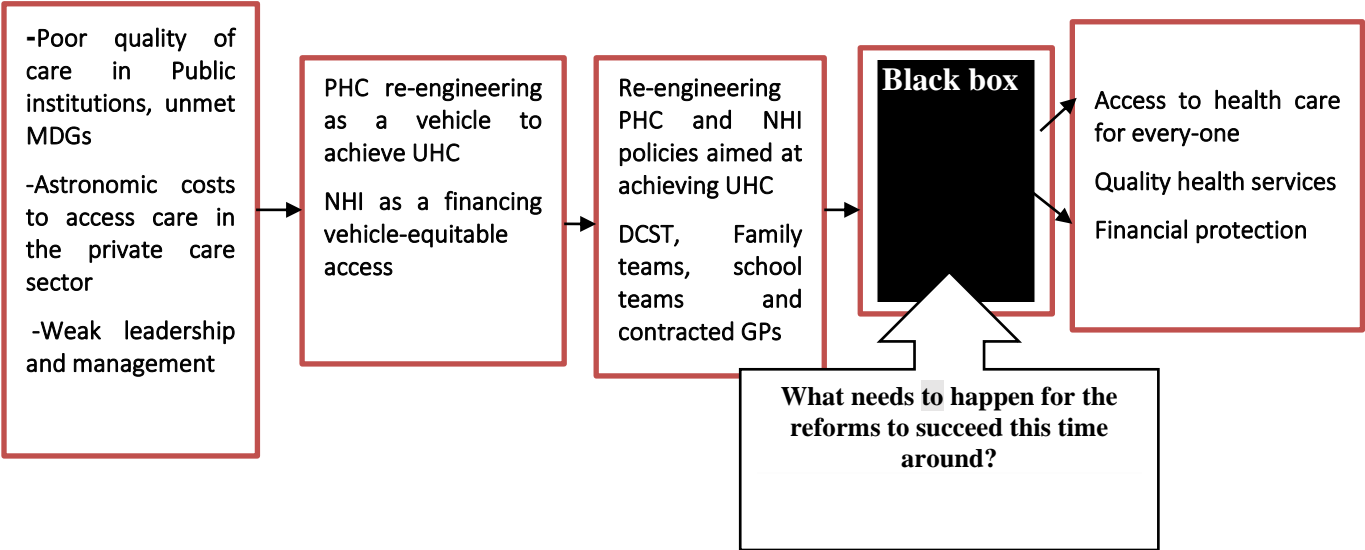
Naidoo and Basu described the above proposals as ambitious and envisaged challenges in implementation (Naidoo and Basu, 2011). The challenge for policymakers is to demonstrate rapid improvements in the quality of care and service delivery indicators such as waiting time

and patient satisfaction; while at the same time addressing the intractable health management issues that bedevil efficiency and drive up costs (Harrison, 2010). Health systems strengthening efforts began in 2011/2, and in 2019, only 6% of the public facilities assessed passed muster (70%) (Fusheini and Eyles, 2016).

2.4 Implementation gap

The South African public health system currently suffers from the implementation gap between sound policy frameworks and the delivery of improvements they seek (Ellokori S and Gilson L, 2012). The lack of leadership to ensure that policies are implemented on the ground is repeatedly highlighted in literature. These problems are underpinned by weaknesses in public health system management. It is local level (district, sub-district, programme and facility) managers who must provide hands on leadership in strengthening the health system (Ellokori S and Gilson L, 2012). The World Health Organisation recommends that countries spend at least 15% of their national budget or 5% of GDP on health. South Africa spends 8.5% of its GDP on health, way above what WHO recommends. Despite this high expenditure, the health outcomes remain poor when compared to similar middle- income countries. According to the minister of health, weaknesses in leadership and management are contributing to the poor health system performance (Department of Health, 2015). Barriers to policy implementation seem to be well documented in literature. Figure below shows a summary of PHC re-engineering currently under way.

Figure 3: Historical lines of PHC Re-engineering in South Africa from 2011-date (simplified)



2.5 Conceptual Framework

Contextual Interaction Theory: A Conceptual Framework

The complexity of the policy implementation process has challenged researchers to develop theories and models, albeit with a limited number of explanatory variables that predict how and under what conditions policies are implemented (O'toole, 2004; Spratt, 2009). Scholars have agreed that implementation is far too complex to be accounted for by a single theory (Signe, 2017). On the other hand a theory or model provides a framework for systematically identifying and reporting factors implementers perceive as affecting the implementation process (Spratt, 2009). We identified the Contextual Interaction Theory (CIT) (Bressers Hans., 2004) as it provides a relatively simple, empirically tested framework for identifying fundamental issues underlying barriers within an implementation network. The basic assumption of the Contextual Interaction theory is that the course and outcome of the policy process depends not only on inputs but more crucially on the characteristics of the actors involved particularly their motivation, power, resources and interactions (Bressers, 2009). All the other factors that influence the process do so because of and in so far as they influence the characteristics of the actors involved. The theory does not deny the value of multiplicity of possible factors, but claims that theoretically, their influence can be best understood by assessing their impact on motivation, information, power, resources and interactions of the actors involved (Bressers Hans., 2004)

The discussion of actors includes policy makers at provincial, level where the task of operationalising NHI reforms was assigned (Oboirien *et al.*, 2018) and policy implementers at district, subdistrict and facility levels in the Primary Health Care System. One of CIT's key assumption is that factors influencing implementation are interactive. The influence of any factor whether positive or negative depends on the particular context. The theory distinguishes a set of core constructs or concepts related to the actors involved which jointly contribute to implementation. Core constructs are;

Motivation: The level of importance the actors place on a policy and the degree to which policy contributes to their goals and objectives affects implementation. If actors have low motivation, they may ignore implementing the policy. Examining motivation helps to understand the perspectives of implementers, their belief system, value priorities and perception of the importance and magnitude of specific problems often revealing root causes of implementation barriers (Spratt, 2009).

Information: Successful policy implementation requires that those involved have sufficient information including technical knowledge of the matter at hand, levels and patterns of communication between actors. For example, do those responsible for implementation actually know with whom they should be working and who the policy should benefit? Do they know which department is assigned to lead the implementation and how the programme will be monitored? How is information and communication between actors coordinated? Have guidelines been developed and are they readily available ? (Bressers Hans., 2004; Spratt, 2009)

Power: Who is empowered to implement policy and to what degree? Power may derive from formal sources such as a legal system e.g. appointment or from informal sources such as charisma or being an elderly.

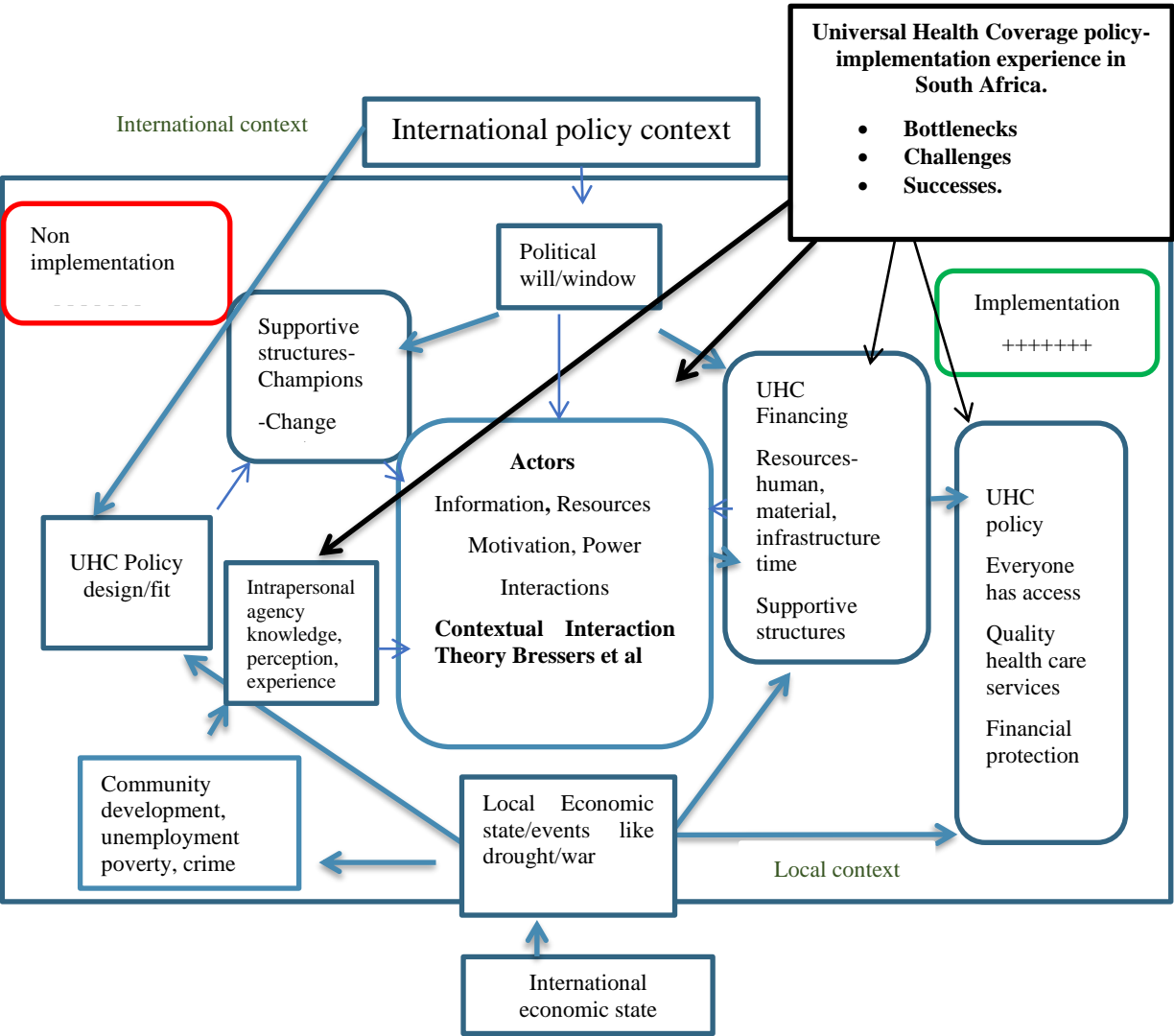
Resources: Having adequate resources for the intended action is important for actors to realize policy implementation goals. Resources provide the capacity to act. The relevance and availability of resources influence the actors motivation which in turn influences the whole policy implementation process (de Boer and Bressers, 2011).

Interactions: interactions predict the level of collaboration among and between actors which in turn influence policy implementation. They must be considered to further analyse barriers to implementation. These interactions can take different forms from cooperation, passive cooperation, forced cooperation, opposition or joint learning. In turn actors collaboration depends on how they perceive the problem being addressed as a priority, how convinced they

are that there is an acceptable solution, that taking action now is in own best interest and if they have implementing capacity (Bressers Hans., 2004; Spratt, 2009).

Specifying the above constructs facilitates the development of tools to measure the level at which each of the core construct contributes or hinders implementation (Spratt, 2009). These central CIT tenets guided our analysis and interpretation of findings in this study.

Figure 4: Conceptual Framework of the PhD (black box, black arrows) in relation to the Contextual interaction theory



2.6 Summary

In this introductory section we have discussed paths taken by different countries in pursuit of UHC among them BRICS (Brazil, Russia, China, India, South Africa) and early adopters Mexico and Turkey as well as countries with sub-Saharan Africa. We laid out key UHC challenges these countries are facing. We also provided an overview of PHC in South Africa and the reasons why it failed the first time around. An overview of current NHI reforms was provided and we will explore these further in this doctoral thesis. An introduction to the conceptual framework used in the study was also given.

The subsequent chapters will focus on the research conducted for this study. Chapter 3 aims to describe the research aims of this thesis as well as methodology used.

3. Methodology

3.1 PhD Study Aims

The overall aim of this thesis is to contribute to a better understanding of how and why police practice gaps come about in a UHC policy implementation context in one pilot district in South Africa. As indicated in literature, South Africa suffers from a policy implementation gap without explaining how the discrepancy between policy and practice comes about. To better understand the policy/practice gap, this thesis explores the implementation experience of both policy makers and policy implementers. Utilizing a theory of change approach, this thesis aimed at tracking NHI policy implementation process through the engagement of policy makers and policy implementers in order to explore, identify and describe why and how policy-practice discrepancies come about in UHC context. Insights gained were used to formulate recommendations for research and practice. The following study questions were formulated;

The central question

How and why do discrepancies between policy and practice come about from your current policy implementation experience- identify and describe an instance(s) in the course of duty, where you or colleagues deviated from policy? These questions were followed by probing questions based on the initial response from the participant.

Sub questions

How do you as an individual actor perceive what needs to be done, how and what strategies do you employ to get policies implemented successfully?

How are you going about integrating the old and new ways of working since the introduction of UHC policies in the facility and as part of the district health system (PHC).

3.2 Study setting

The present study was nested in a broader European Union funded project UNITAS: “Universal Coverage in Tanzania and South Africa.” UNITAS is a European Union (EU) funded project involving teams from South Africa and Tanzania implemented from 2011 until 2015. UHC

reforms in Tanzania were monitored by joint teams from Ifakara Health Institute and London School of Hygiene and Tropical Medicine while as in South Africa this was collaborated by three universities namely: University of KwaZulu-Natal, University of Witwatersrand and University of Cape Town. Teams from the two countries independently tracked Universal Health Coverage reforms that were rolled-out in these respective countries. The reforms though different; all aimed at achieving Universal Health Coverage.

The purpose of UNITAS study was to:

- Support the formulation and implementation of policy for Universal Coverage in South Africa and Tanzania.
- Track policy formulation, processes and actors
- Monitor implementation and act as early warning systems
- Engage with policy makers and implementers
- Synthesize and disseminate results for policy implications.

The following section presents a description of the study area as well as the methodological approach used for this research

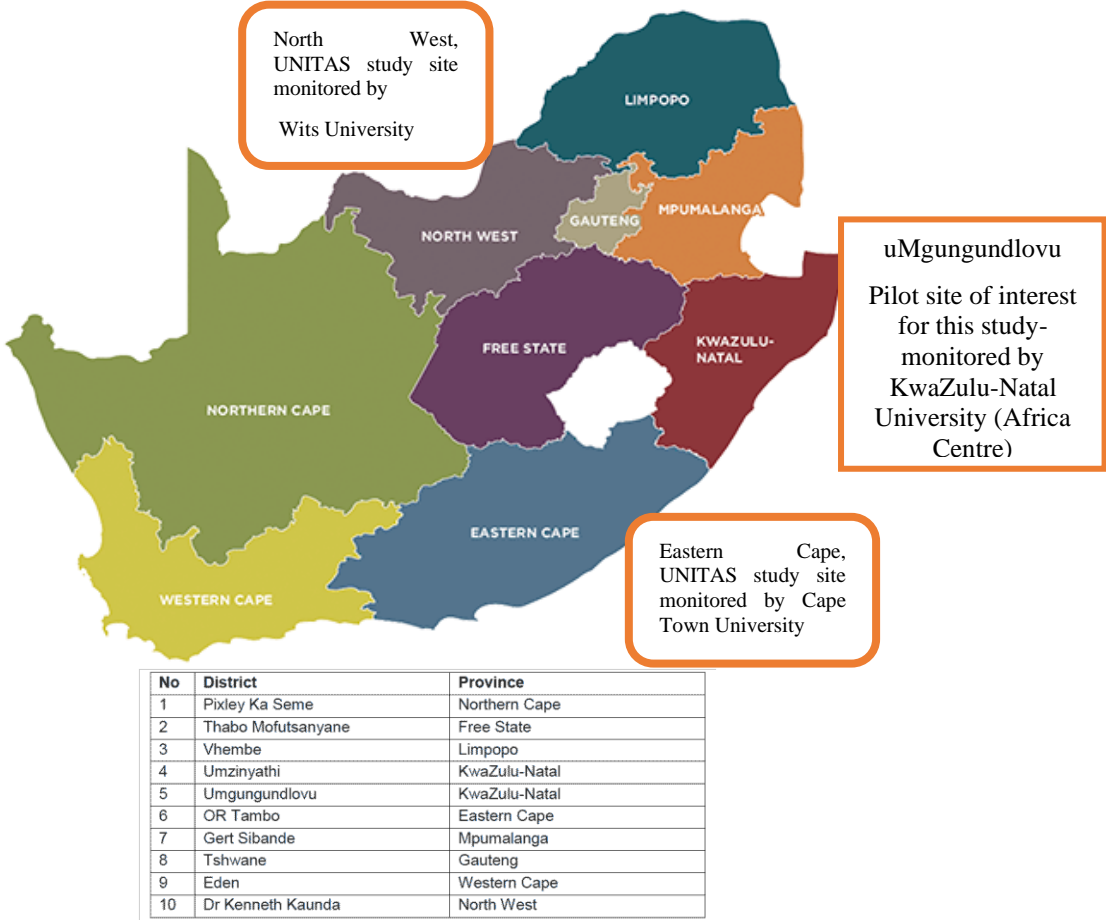
3.3 Study area and sampling

In 2011, ten pilot districts were identified by the Department of Health and selected as National Health Insurance (NHI) pilot sites. The selection of these sites were based on poor performance on key health indicators like high maternal and child mortality rates (Fusheini and Eyles, 2016). UNITAS purposively selected three out the ten selected NHI pilot districts in South Africa.

The research for this thesis was conducted in one National Health Insurance pilot districts in South Africa uMgungundlovu. As a researcher, I was involved in theory of change interview guide development, all phases of data collection, identification of an analytic framework, and data analysis. KwaZulu-Natal province is made up of eleven districts, one of which is

uMgungundlovu. The uMgungundlovu health district is the seat of the office of the Premier of KwaZulu-Natal as well as the provincial capital, Pietermaritzburg. HIV mortality is still the leading underlying cause of mortality in the district (*Umgungundlovu Health District, 2019*). The district has 46 fixed clinics, 17 mobile clinics providing health services to 10% of the provincial population of 1 086 066. 84% of this population is uninsured and therefore relies on the public health system. The district comprises seven municipalities namely, uMshwati (KZ 221), uMgeni (KZ222), Mpofana (KZ23), Impendle (KZ224), Msunduzi (KZ 225), uMkhambathini (KZ 226 and Richmond (KZ227). The district has 46 fixed clinics, 17 mobile clinics provides health services to 10% of the provincial population of 1 086 066. 84% of this population in uninsured and therefore relies on the public health system. The first three leading diseases are directly related to HIV/AIDS. The district covers an area of 9 189 square kilometres. It comprises of seven municipalities namely; uMshwathi (KZ 221), uMgeni (KZ 222), Mpofana (KZ 223) Impendle (KZ224), Msunduzi (KZ 225) uMkhambathini (KZ 226) and Richmond (KZ 227) (*Umgungundlovu Health District, 2019*)

Figure 5: Map of South Africa showing NHI Pilot sites



The District health system in South Africa

A district health system (DHS) is the cornerstone of the South African health system (Department of Health, 2015). This is a geographically demarcated area with health care facilities to serve that population. Primary health care facilities serve as the first point of contact with the health system, followed by Community Health Centres (subdistrict), which are slightly bigger, with resident doctors doing minor surgeries like incision and drainage. Cases that cannot be handled at this level are then transferred to the district hospital run by a hospital management team under the leadership of a Chief Executive Officer. The district itself is run by a district health team, headed by the District Manager. She is supported by programme managers, primary health care supervisors and subdistrict managers among others, to provide support to

health facilities. The district Manager reports to the Provincial Authorities who in turn report to National Authorities. Primary health care centers are the first level of contact with the public health system for all patients.

3.4 Study design

A qualitative exploratory case study design utilizing a theory of change (TOC) approach was utilized. One advantage of theory of change approach is the close collaboration between the researcher and the participant, while enabling participants to tell their stories as trust is built during repeated visits over time (Baxter J, and Jack S., 2008). Through these stories the participants were able to describe their views of reality and this enabled the researcher to better understand the participants' actions (Lather, 1992). A case study design is defined as an empirical inquiry that investigates a phenomenon within its real-life context (Press Academia, 2018)

Case study methodology provides tools for researchers to study complex phenomena within their contexts. A 'theory of change' approach provides important lessons for managing change (Hunter, Killoran and NHS Health Development Agency, 2004). In addition, the theory of change approach allowed the researchers to track the unfolding experience of policy implementation through engaging in a collaborative and reflective inquiry with those who were managing and implementing reforms and in this case actors in KZN, NHI pilot site. This study took place in uMgungundlovu, KwaZulu-Natal (KZN), South Africa, only one of the three districts. The study was conducted by UNITAS in collaboration with Africa Centre for Health and Population Studies and the University of KwaZulu-Natal. The case was the district, uMgungundlovu, conveniently selected as the only NHI pilot district in that province at the time. The region is characterized by high unemployment, poverty and a high HIV/TB prevalence. Managerial support and willingness to participate in the study also guided site selection. District and sub-district management assisted in the purposive sampling of facilities and participants.

According to Yin (2003) a case study design should be considered when: (a) the focus of the study is to answer “how” and “why” questions; (b) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or (d) the boundaries are not clear between the phenomenon and context (Robert K. Yin, 2003). We wanted to answer the questions of how and why discrepancies between policy and practice come about while mindful of the importance of context and how context influences policy roll-out. Another hallmark of case study research is the use of multiple data sources, a strategy which also enhances data credibility (Robert K. Yin, 2003). We interviewed actors at different levels of the district health system, made direct observations, and took notes.

Boundaries

The establishment of boundaries in a qualitative case study design is similar to the development of inclusion and exclusion criteria for sample selection in a quantitative study (Baxter and Jack, no date). uMgungundlovu is the district of choice. Participants include actors at District, sub district and facility level involved in policy roll-out in uMgungundlovu district. In addition, NHI cadres at KZN provincial office responsible for the facilitation of and supervision of these reforms are included as implementers.

Table 1: In-depth interviews held and the target groups in KZN Pilot site

Location	KZN			
	Context Mapping	Round1	Round 2	Total
In-depth interviews District- and sub-district managers, DDG NHI	5	7	5	17
In-depth interviews with managers and staff at the District Hospital	-	4	4	8
In-depth interviews with managers and staff at the 2 CHCs and 10 Clinics	-	26	20	46
Total	5	37	29	71

Sample size

The issues of appropriate sample size is still debated in literature with some suggesting as few as ten informants needed with Wolcott and many of the other experts suggest saturation as central to qualitative sampling (Morse, 2000) . Adler and Adler advising graduate students to sample between 12 and 60, with 30 being the mean and Ragin suggests that a glib answer is ‘20 for an M.A. thesis and 50 for a Ph.D. dissertation while Mason also identifies the need within qualitative research to build a convincing analytical narrative based on ‘richness, complexity and detail’ rather than on statistical logic (Foster *et al.*, 2011). In this study, we interviewed 71 participants well above the suggested sample size and we also reached saturation.

3.5 Data collection

Face to face in-depth interviews were held with actors at facility, sub district, district involved in policy roll-out. One actor at Provincial level, Deputy Director General were interviewed as the designated National Health Insurance champion for uMgungundlovu. A standard interview guide was used and the interviews were audio recorded. Each audio recorded interview was listened to by the researcher before sending it to a firm for transcribing. The researcher`s observations were noted at the back of the interview schedule and were later captured into the computer. A structured interview guide that aimed to explore the core constructs of implementation guided by the Contextual Interaction Theory (motivation, information, power and interaction networks) was utilized. The team used an iterative process—learning and adapting the interview guide in each phase i.e. contextual phase, first round and second round.

Piloting the data collection instrument

The interview guide was piloted during context mapping to (i) Test the suitability of the data collection methods (ii) Ensure that all questions are clear and unambiguous (iii) Check the adequacy of the instruments and iv) Identify and remove any items that did not yield usable data. The time spent interviewing ranged from 60 minutes, to 2 to 3 hours due to the flexibility

of the interview process. Password access computers were used and all interview transcripts were saved in a secure drop box only accessible to the researcher team.

Confidentiality

The results from the study were analyzed by the investigators involved in the study and are available to these investigators only. Any information obtained in the study was used in a manner that does not disclose the identity of the participants. The site name has not been mentioned in Manuscripts for anonymity reasons as discussed with participants.

3.6 Data analysis

Interviews were transcribed and coded for emerging themes. Framework analysis provided an effective route map for the journey and enabled a case and theme-based approach to data analysis (Gale *et al.*, 2013). CIT framework was used as a guide. We used both inductive approach (ideas emanating from the data itself) and deductive approach (theoretical understanding, literature review and researcher`s experience) for data analysis. Analyses was performed with the aid of MAXQDA2018

Dependability of the data was promoted by having multiple researchers independently code a set of data and then meet together to come to consensus on the emerging codes and categories (Baxter J, and Jack S., 2008).

The following measures were taken to enhance trustworthiness:

- *Member Checking:* During data collection member checking was utilized as the researchers shared interpretations of the data with participants, and participants themselves were given the opportunity to discuss and clarify the interpretation, and contribute new or additional perspectives on the issue under study.
- *Reflexivity:* This was be adopted by the researcher throughout data collection. Reflexivity involved making the research process itself a focus of inquiry, laying open pre-conceptions and becoming aware of situational dynamics in which the interviewer

and respondent are jointly involved in knowledge production (Baxter J, and Jack S., 2008).

- *Field notes*: To aid reflection and gain additional insights, field notes were taken and later use by researcher in data analysis.
- *Triangulation*: Triangulation denotes the use of more than one data source or respondent groups (Adams *et al.*, 2015) in this case actors at different levels in the district health system were interviewed.
- *Dependability*: It is defined as showing that the findings are consistent and could be repeated. In addition to triangulation and saturation, continuous supervision by experienced senior researchers with extensive experience in health systems and policy research including UHC in South Africa, assisted in ensuring dependability.
- *Transferability*: This refers to showing that the findings have applicability in other contexts. A thick description of the study has been done to facilitate possible transferability to similar contexts.

3.7 Ethics

The study was conducted in full compliance with the principles of « Declaration of Helsinki » (as amended in Tokyo, Venice, Hongkong and South Africa and the laws and regulations of South Africa. UNITAS obtained Full Ethical approval for the study granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF BE197/13. Gatekeepers permission was granted by the KZN Provincial Health Department; REF HRM4/2. A support letter was also obtained from the District Manager. In addition, informed written consent was obtained from actors who took part in the study.

3.7 Thesis structure

This thesis consists of 10 chapters. Chapter 4 on UHC financing explored the potential stumbling blocks to funding the implementation of UHC policies in SA and lay the ground work for potential policy-practice gaps emanating from there. Chapter 5 revealed that Health

systems strengthening initiatives, part of the policies that were being rolled out were divorced from the challenges the nurses, the back bone of the Health System said they were having. Chapter 6. How and why policy-practice gaps come addressed the central question of our thesis. Chapter 7 revealing the need for health system transformation also addressed the central question but went further to reveal that the reason policy-practice gaps are not improving is because of systems that are outdated, set up in a different context technologically, demographically and epidemiologically. Chapter 8 laid the ground work for the outlook. If we are to achieve UHC, then focus on leadership development approaches is paramount. Chapter 9 proposes the addition of leadership as a central tenet for CIT theory. The final chapter provides a summary of findings from chapters. It further seeks to justify the contribution of this thesis to existing knowledge interrogating the conceptual, methodological and policy contributions of this thesis.

4. Universal Health Coverage Financing in South Africa: wishes vs reality

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4.1 Abstract

Background: In 2011, the South African health minister, proposed a national health insurance (NHI) for South Africa with the aim to deliver universal health access and care to all South African residential citizens, with a single fund to cover all people, no matter their income. The first five years were reached at the end of year 2017-2018. In order to achieve universal health coverage (UHC), primary health care (PHC) re-engineering and NHI have been chosen as key strategic interventions to be implemented. These reforms are currently being piloted in 11 selected districts in South Africa since 2011.

Methods: The purpose of this paper is to compare and contrast the proposed South African NHI financing reforms (wishes) versus what has been implemented to date (current financing and service delivery reality on the ground) highlighting potential stumbling blocks. A review of both published and grey literature mainly sourced from the departments of health South Africa, statistics South Africa, world health organisation and world bank reports was carried out. Key documents reviewed included the South African national health insurance whitepaper, South African governmental financial reports, health systems trust reviews, mid-term report on universal health coverage and world bank report on appropriate universal health coverage financing, progress reports on UHC and published research from leading health economists.

Results: Independent medical schemes, people as taxpayers and as consumers, rampant unemployment, lack of trust in public institutions and regressive aspects of value added tax (VAT), budgets, fickle political will, corruption, drivers of private health costs, provincialization as opposed to district health authorities, incompetent leadership and a cocktail of epidemics were revealed as potential stumbling blocks.

Conclusion: As international support for UHC grows pace, the issue of how to finance improved financial protection and access to needed health services becomes ever more urgent. Exploring how the proposed South Africa national health insurance UHC financing reforms

compare and contrast with the situation on the ground, helps highlight potential stumbling blocks that need addressing as SA moves towards UHC. The paper concludes by calling for innovative, inclusive and sustainable UHC financing and service delivery solutions and the upholding of political will and commitments made, if South Africa is to achieve UHC by 2026.

4.2 Background

The introduction of national health insurance (NHI), aimed at achieving universal coverage, is the most important issue currently on the South African health policy agenda (Honda *et al.*, 2015). In 2011, the then health minister, Aaron Motsoaledi, proposed a national health insurance for South Africa with the aim to deliver universal health care and access to all South African residential citizens, with a single fund to cover all people no matter their income. NHI is based on the principle of the constitutional right of citizens to have access to quality healthcare services that are delivered equitably, affordably, efficiently, effectively and appropriately based on social solidarity, progressive universalism, equity and health as a public good and a social investment (Department of Health., 2017). National health insurance aims to transform the financing of healthcare in pursuit of financial risk protection, by eliminating fragmentation, ensuring technical and allocative efficiencies in how funds are collected, pooled and used to purchase services, thus creating a unified health system that will move closer to the goal of UHC and sustainable development goals (SDG) by 2030 (Department of Health., 2017; Witter *et al.*, 2019). The goal is to extend population coverage, improve the quality and quantity of services that the population are entitled to, provide financial risk protection to individuals and households whilst reducing the direct costs that the population are exposed to when accessing healthcare. It also aims to protect individuals and households from out-of-pocket expenses and financial catastrophe related to healthcare (Department of Health, 2015; Department of Health., 2017) .

Current South African Context

South Africa's health system is largely inefficient and unequal. Despite certain areas of progress in the country since 1994, disparities in wealth and health are among the widest in the world (Leibbrandt *et al.*, 2010). South Africa spends 8.5% of its gross domestic product (GDP) on health care, or around R332 billion in monetary terms; half is spent in the private sector catering for the socio-economic elite. The remaining 84% of the population, who carry a far greater burden of disease, depend on the under-resourced public sector (Rispel, 2016). Those with the means can access first-world health care through the private sector, while many people who cannot afford this service, are left to rely on governmental hospitals and clinics. The service through government institutions is largely unreliable and fails to offer adequate specialist services (Africa, 2012). The intent of the reform is also to integrate the existing private schemes into NHI since medical aids are making huge profits and consumers in the private sector too, are not getting fair value for their money (Health Policy Project, 2018).

Powerful historical and social forces, such as vast income inequalities, unemployment, poverty, racial and gender discrimination, the migrant labour system, the destruction of family life and extreme violence characterize South Africa (Benatar, 2013). In addition, the country is faced with a quadruple burden of diseases, HIV/AIDS, Tuberculosis, high maternal neonatal and child morbidity and mortality, rising burden of non-communicable diseases and high levels of violence and trauma. These diseases negatively impact the poorest groups of the population (Harrison, 2010). Leadership and governance challenges remain prevalent in the various levels of the public sector despite efforts by government to inculcate a culture of good leadership and governance, the knowledge and skills amongst managers is still very inadequate (Harrison, 2010; Rispel, 2016; Department of Health., 2017). Ongoing assessments of public sector facilities continue to reveal quality problems in the areas of staff attitudes, waiting times, cleanliness, drug stock-outs, infection control, and safety and security of staff and patients, despite efforts that have been made to address these challenges (Department of Health., 2017;

UNAIDS, 2018) . Only a third of state facilities pass muster, which means a small number of these institutions would be able to provide good quality healthcare at the moment (Hippo, 2016). NHI plans to address such issues and in general increase the health of the population. Healthier people, inevitably live longer, work longer and will no doubt benefit the economy (Department of Health, 2015).

Two vehicles that have been selected to achieve UHC are NHI and PHC re-engineering. Healthcare services will be provided through an integrated system involving accredited and contracted public and private providers. The PHC services include health promotion, disease prevention, curative (acute and chronic clinical) services, rehabilitation and palliative services (including social services). PHC Re-engineering will be implemented through four streams namely;

- a) Municipal ward-based primary health care outreach teams (WBPHCOTs);
- b) Integrated school health programme;
- c) District clinical specialist teams; and
- d) Contracting-in of private health practitioners at non-specialist level under the leadership of district health management offices (DHMOs). The planned interventions outlined will be undertaken throughout the 14-year phased implementation of NHI (2012-2026) (Department of Health, 2015).

Planned National Health Insurance Financing Reform

NHI supports changes in service delivery by a series of financing and management changes designed to raise more funds, manage the funds efficiently and effectively, increase pooling and purchasing. It is worth mentioning that the health financing system does not act alone in achieving UHC goals, hence coordinated policy and implementation across health system functions are essential for making progress on the desired objectives, such as improving the quality of care. National health insurance aims to achieve the following financial reforms;

1. To move beyond the existing fragmented public and private health financing systems to create a common modern universal health financing system which is cost-effective, trusted by citizens and provides protection against costly health services
2. To move from voluntary to mandatory prepayment system
3. To raise additional revenue for healthcare
4. To improve pooling arrangements so as to better spread risk and improve cross-subsidisation
5. To purchase from a mix of public and private providers
6. To use economies of scale and purchasing methods to achieve cost-efficiency
7. To deliver quality services and continual improvements in health outcomes (Department of Health., 2017).

UHC means that people have access to the health care services that they need without undue financial hardships. UHC is commonly understood to consist of three interrelated components: the population covered, the range of services made available; and the extent of financial protection from the costs of health services (Stuckler *et al.*, 2010; Holmes, 2014; Organisation mondiale de la santé and Groupe de la Banque mondiale, 2015). The purpose of this paper is to compare and contrast the proposed South African NHI financing reforms (wishes) versus what has been implemented to date (current financing and service delivery reality on the ground), highlighting potential stumbling blocks on the road to UHC. The paper concludes by calling for innovative, inclusive and sustainable UHC financing solutions and upholding of political will and commitments made if South Africa is to achieve UHC by 2026.

4.3 Methods

The findings presented in this paper are from a review of both published and grey literature mainly sourced from the departments of health South Africa, statistics South Africa, world health organisation and world bank reports. Key documents reviewed included the South

African national health insurance whitepaper, South African governmental financial reports health systems trust reviews, mid-term report on universal health coverage and world bank report on appropriate universal health coverage financing, progress reports on UHC and published research from leading health economists.

The world health report 2010, summarizes three broad financing strategies as

- more money for health” (raising more funds);
- strength in numbers” (larger pools); and
- more health for the money” (improving efficiency and equity in the use of funds through reforms in purchasing and pooling as well as actions not directly related to health financing) (Kutzin, 2013).

We utilized this framework as a guide. Each national health insurance financing proposal mechanism as set out in the whitepaper was analysed in respect to key broad health financing functions namely revenue generation, pooling and purchasing, comparing and contrasting proposed NHI Financial reforms, wishes vs reality, current South African financing and service delivery situation on the ground. Potential stumbling blocks were identified and discussed with evidence from literature bearing in mind that South Africa, like many countries, still faces problems with access to quality health services, cognizant of the fact that financing policy alone cannot address these problems (Kutzin, 2013). Below is the table UHC financing in South Africa -wishes versus reality;

Table 2: UHC financing in South Africa -wishes versus reality

UHC Financing component: Raising revenue	
<p>This means raising sufficient and sustainable revenues in an efficient and equitable manner to provide individuals with both a basic package of essential services and financial protection against unpredictable catastrophic financial losses caused by illness or injury (Department of Health, 2015)</p>	
Wish: NHI reform aim 1	Reality: Current situation on the ground
<p>To move beyond the existing fragmented public and private health financing systems to create a common modern universal health financing system which is cost-effective, trusted by citizens and provides protection against costly health services (Department of Health, 2015)</p>	<p>Currently South Africa has a fragmented and Inequitable Health Care Financing System.</p> <p>Two tiered fragmented health system divided along socioeconomic lines, resulting in inequitable access to healthcare (Health Policy Project, 2014; McIntyre D, and Ataguba J., 2017).</p> <p>South Africa invests a large share of its public funds in health care e.g. almost 13% of the consolidated government expenditure was allocated to health care over the 2015 medium term period (Bidzha L, Greyling T, and Mahabir J., 2017).</p> <p>Almost 50% of Total Health Expenditure (THE) is spent on 16% of the population covered by medical schemes whilst the other 50% is spent on 84 % of the population in the public sector (Department of</p>
Sources of funds	
<p>Restructuring of medical schemes, identification and consolidation of all the funding for medical scheme contribution subsidies and tax credits paid to various medical schemes (such as the Government Employees Medical Scheme, the Police Medical Scheme, Parliamentary Medical Scheme, Municipal Workers Union Medical Scheme, State-owned entity medical schemes e.g. Transmed as well as</p>	

various private medical schemes to which State employees belong) into one NHI fund (Department of Health, 2015)

Health, 2015; Department of planning, monitoring and evaluation, 2017).

Public health care expenditure is financed through general tax revenue (McIntyre D, *et al.*, 2008) while the private health care system is dominated by medical aid schemes (medical insurance) (Bidzha L, Greyling T, and Mahabir J., 2017) Funding for public health services in South Africa is currently at 4.1% of GDP, compared to 6% as the average for middle income countries (Department of Health, 2015; Department of planning, monitoring and evaluation, 2017)

Domestic funding—burden placed both on companies and individuals, but households ultimately bear most of the burden of funding health care services (through tax, insurance contributions and out-of-pocket payments) (McIntyre D, *et al.*, 2008)

Out of Pocket Payments: South Africans are exposed to three forms of Out-Of-Pocket payments (OOPs) namely:

Public health facilities are free at the point of care but transport and travel costs can be a barrier (McIntyre, Doherty and Ataguba, 2014; Department of Health, 2015).

b) For those with medical insurance, additional payments (co-payments or levies) whose benefit option does not cover all the costs (McIntyre, Doherty and Ataguba, 2014; Department of Health, 2015)

c) Cash payment for those on medical schemes whose benefits are prematurely exhausted before the end of the year. Private hospital fees, specialists' and medicine costs account for the bulk of the OOPs (McIntyre, Doherty and Ataguba, 2014; Department of Health, 2015)

OOPs increased by 11.9% to R20.7 billion between 2013 and 2014 (Council for Medical Schemes. 2015)

In short limited financial protection.

Legislative amendments not yet passed foreseen for 2017-2022:

The NHI Bill is reported ready to be processed through government and to be submitted to Parliament shortly (*State of the Nation Address 2018 / South African Government, 2018*).

The South African health system is underpinned by a financing system that is based on the Intergovernmental Fiscal Relations (IGFR) system. The main problem that underpins IGFR challenges

Financial protection

NHI aims to ensure that individuals and households do not suffer financial hardship and/or are not deterred from accessing and utilising needed health services. It involves eliminating various forms of direct payments such as user charges, co-payments and other direct out-of-pocket payments (Department of Health., 2017)

relates to striking a balance between the need to provide Constitutionally Mandated Basic Services (CMBS) within macroeconomic constraints that limit the available resources and a fiscal federal structure that has its own defined priorities (Department of Health, 2015; Department of planning, monitoring and evaluation, 2017)

The three main sources of general tax revenue in South Africa are personal income tax, value-added tax and corporate income tax. These three tax instruments accounted for 80.3 per cent of total tax revenues in 2011/12 (Department of Health, 2015)

There is very little donor funding in South Africa (< 1% of total health care funding) (McIntyre D, *et al.*, 2008; Department of Health, 2015).

Legislation and other tools have not yet gone far enough to regulate the private health care sector. Consequently, no one including medical scheme members are not well protected from the escalating costs of health care and out of pocket payments (Department of Health, 2015).

Escalating costs of private medical schemes is unaffordable for the majority of South Africans with

spending through medical schemes in South Africa, the highest in the world and represents more than 6 times the 2013 OECD country average of 6.3% (McIntyre D, *et al.*, 2008).

Wish NHI reform 2

To move from voluntary to mandatory prepayment system (Department of Health, 2015)

Contribution mechanisms

NHI will be financed through mandatory prepayment which is distinct from other modes of payment such as voluntary prepayment and out-of-pocket payments (Department of Health., 2017).

Reality: Current situation on the ground

South Africa has a relatively low share of mandatory prepayment funding in the context of the UHC goal.

A relatively low share of mandatory pre-payment funding in the context of the UHC goal (McIntyre, Doherty and Ataguba, 2014).

Health insurance contributions collected directly from members (often employer and employee payroll contributions) by more than 120 medical schemes.(McIntyre D, *et al.*, 2008).

Only half of domestic prepayment funding is mandatory with the other half being voluntary (*CHP > Research > Universal Health Care Coverage in Tanzania and South Africa*(UNITAS), 2019)

Collecting organizations

The NHI Fund will receive and pool funds to strategically purchase services for the entire population.

The NHI Fund will be publicly administered governed by the NHI Board that will exercise oversight over the entity and the administration costs will be kept to a minimum. The NHI Board will report to the Minister of Health and will be accountable to Parliament. This will be an external oversight mechanism that will ensure that the NHI Fund is held accountable and that the interests of the general public are taken into account (Department of Health, 2015).

Increased population coverage with health insurance alone can become a potential obstacle to progress towards UHC (Kutzin, 2013).

Financing policy though necessary, alone is not a sufficient condition for progress (Kutzin, 2013)

General tax is collected by the South African Revenue Service -Tax funds are centrally collected (McIntyre D, *et al.*, 2008).

Health insurance contributions collected directly from members by more than 120 medical schemes (McIntyre D, *et al.*, 2008). There is considerable risk in a large proportion of the financial resources available for health services being located in a single institution in the absence of strong risk management and good governance or without appropriately skilled staff (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018))

Poor trust in Public Institutions management of funds (Rispel, 2016).

Corruption, Inefficiencies (Rispel, 2016; Rispel, de Jager and Fonn, 2016)

Wish NHI reform 3

To raise additional revenue for healthcare through a tax mix of direct and indirect taxes as direct taxes can best address equity concerns, while indirect taxes can also influence behaviour, for example through taxes on alcohol, tobacco, and fuel (Department of Health, 2015).

The most preferred option for revenue is predominantly funded through general revenue allocations, supplemented by: (1) a payroll tax payable by employers and employees, and (2) a surcharge on individuals' taxable income (Department of Health, 2015).

Mobilisation of fiscal resources as a result of economic growth (Department of Health, 2015).

Increase the efficiency of revenue collection, reprioritize government budgets and innovative financing (Feigl A, Basu S, and McKee M., 2010).

Reality: Current situation on the ground

VAT (Value added tax). The key advantage of a 'surcharge' on VAT (or an increase in the VAT rate with the additional revenue dedicated to funding the NHI) is that it draws on a very broad base (everyone pays VAT). The main disadvantage is its regressive incidence (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018)

As of April 2018 value-added tax (VAT) is raised by one percentage point to 15% (Merten, 2018)

The fiscal situation in a country is affected by a wide range of factors, including the level of poverty and economic growth, the composition of the labour market (Fusheini and Eyles, 2016).

Despite dramatic improvements in tax revenue collection, fiscal space for health in South Africa did not improve (Doherty, Gilson and Shung-King, 2018a).

The global financial crisis and subsequent recession have exposed vulnerabilities and structural imbalances in major economies including South Africa.

The recent slow pace of economic growth is also a fundamental worrying factor as South Africa's real gross domestic product fell by 2.2% in the first quarter of 2018 (van der Merwe M., 2018)

Over the long run, the pace of economic growth is an important indicator of overall growth rate in health expenditure (Department of Health., 2017), and an extraneous factor that is difficult to control

Fears exist that additional funds might not be used as intended, coupled with feasibility concerns that some proposals are not implementable as proposed (*Debate heats up over NHI and medical aid schemes*, 2017).

UHC Financing component: Pooling

Contributions are pooled so that the costs of health care are shared by all and not borne by individuals at the time they fall ill (this requires a certain level of solidarity in the society (Carrin G, James C, and Evans DB., 2005).

NHI reform aim 4

Reality: Situation on the ground

To improve pooling arrangements so as to better spread risk and improve cross-subsidisation (Department of Health, 2015)

Risk pooling

To reduce fragmentation and to maximize income and risk cross-subsidisation, the NHI Fund will be a single national pool of funds that will be used to purchase personal health services (Department of Health, 2015)

Revenue pooling

NHI will be established as a single-payer and single-purchaser fund responsible for the pooling of funds and the purchasing of personal health services on behalf of the entire population (Department of Health, 2015)

Pooling of financial resources will strengthen the NHI Fund's purchasing power resulting in the reduction of costs of delivering personal healthcare services and

The system has small, fragmented funding and risk pools, which limit the potential for income and risk cross-subsidisation (McIntyre D, *et al.*, 2008; McIntyre, Doherty and Ataguba, 2014; Department of planning, monitoring and evaluation, 2017).

At present, there is no risk-equalization between individual medical schemes (McIntyre D, *et al.*, 2008).

There is lack of pooling between the tax and medical schemes environments (McIntyre D, *et al.*, 2008; Ataguba JEO and Akazili J., 2010). Fragmentation in funding pools within and between the public and private sectors. In the private sector, are 83 medical schemes funding health needs of only 16.2% (8.8 million lives) of the population (Department of planning, monitoring and evaluation, 2017).

Medical schemes are fragmented along the lines of occupational categorisation as well as the ability of individuals to afford the medical scheme contributions associated with a specific benefit option (McIntyre D, *et al.*, 2008).

expansion of the scope of personal healthcare services offered to the entire population (Department of Health, 2015).

Allocation mechanism

Resources are allocated so as to maximise the welfare of the community by achieving the right mixture of healthcare programmes to maximise the health of society. It takes into account not only productive efficiency with which healthcare resources are used to

There is limited cross-subsidisation within the private medical schemes environment (McIntyre, Doherty and Ataguba, 2014; Department of Health, 2015; Department of Health., 2017)

Within the public sector there are multiple funding pools across three spheres of government (Department of Health., 2017).

This fragmentation is exacerbated by several funding streams namely equitable share allocations, conditional grants and locally generated revenues which do not allow for effective planning, and contribute towards uncertainty in the availability of funding for services (McIntyre D, and Ataguba J., 2017).

The effect of the fragmentation is that a majority of South Africans, particularly the unemployed and poor, are not provided with adequate financial risk protection from catastrophic health expenditures and their health needs are not adequately met (Department of Health, 2015).

Fragmentation is also a key driver of inequality and contributes to inequity in the distribution of health benefits (Department of Health, 2015)).

South Africa's dual healthcare system is characterised by extreme inequalities in the allocation of financial and

produce health outcomes but also the efficiency with which these outcomes are distributed among the community (Department of Health., 2017).

human resources with the private sector being considerably better resourced, well developed, resource intensive and highly specialised (McLeod and Grobler, 2010).

Funds are allocated from central government to provinces (for all sectors) using a needs-based formula and then each province has autonomy to decide on how it will allocate these funds to individual sectors (e.g. health and education) – i.e. South Africa has a ‘fiscal federal’ system.

No provincial health department has adopted a needs-based resource allocation mechanism for distributing financial resources across districts, instead rely on historical budgeting, which has contributed to entrenching inequalities in public health spending within provinces (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018).

South Africa has a situation where ‘you get what you pay for’ confirming that both income and risk cross-subsidies, in the overall health system, are lacking (Ataguba J. and McIntyre D., 2009).

Despite the rising allocations and different policy initiatives implemented over the years in South Africa, there is a view that the health system’s performance is

below the expected level ('National planning commission: Diagnostic overview', 2010).

UHC Financing component: Purchasing

To purchase from a mix of public and private providers (Department of Health, 2015).

Wish: NHI Reform 5

To purchase from a mix of public and private providers (Department of Health, 2015).

Reality: Situation on the ground

South Africa has a weak purchasing mechanism. At present, there is a relatively passive relationship between purchasers (i.e. those who hold a pool of funds and transfer these funds to providers) and service providers. Existing ways of paying providers in both the public and the private health sectors are inefficient. The current system of line-item budgeting in the public sector does not provide incentives for efficiency or for providing good quality care (McIntyre, Doherty and Ataguba, 2014).

Passive purchasing (*CHP > Research > Universal Health Care Coverage in Tanzania and South Africa*(UNITAS), 2019) currently with;

Little or no selection of providers ('anything goes')

Strategic purchasing

A key element of the NHI reforms is to create a purchaser-provider split by creating an institution that will strategically purchase healthcare services (Department of Health, 2015).

Little or no clarity on purchaser's expectations of providers

Allocation of resources and provider payment mechanisms with limited incentives or which create perverse incentives

Little or no monitoring (McIntyre D, and Ataguba J., 2017).

Inadequate budget spending guidance from the National Department of Health noted e.g. by the end of the 2012/13 financial year, it was reported that only 77 % of the budget allocated to the pilot districts through conditional grants had been spent (Fusheini and Eyles, 2016).

Provider payment mechanisms

To purchase from a mix of public and private providers (Department of Health, 2015).

The current fee-for-service payments, as used within the private sector environment, creates an incentive to provide as many services as possible, even where these may not be medically necessary or appropriate, again generating inefficiencies.

Some low-income workers, who are not members of medical schemes, use private general practitioners and retail pharmacies and pay on an out-of-pocket basis (McIntyre D, *et al.*, 2008).

Wish NHI Reform 6

To use economies of scale and purchasing methods to achieve cost-efficiency (Department of Health, 2015)

NHI Fund will assess the population needs to determine health service requirements and to ensure that the required services are available through purchasing these services from accredited public and private providers (Department of Health, 2015).

Acting as a single-payer.

Acting as a single-payer and single purchaser, the NHI Fund will be able to reap the efficiency benefits of monopsony purchasing power and economies of scale, and ensure that incentive structures for healthcare providers are integrated and coherent (Department of Health, 2015).

The NHI Fund will be able to yield the efficiency benefits of economies of scale

Reality: Situation on the ground

Currently health care services are not distributed in line with the need for health care services and the benefit incidence of health care in South Africa is very 'pro-rich', with the richest 20% of the population receiving 36% of total benefits (despite having a 'health need share' of less than 10%) while the poorest 20% receive only 12.5% of the benefits (despite having a 'health need share' of more than 25%) (Ataguba J. and McIntyre D., 2009).

Currently there is an imbalance in power within an unregulated health system, in favour of health care providers (Arrow, 2004).

The consequences of health care providers being the 'price makers' in the private health sector context in South Africa is precisely what the competition commissions' Health Market Inquiry is grappling with at present (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018)

and ensure that incentive structures for healthcare providers are integrated and coherent (Department of Health, 2015).

NHI will pay a uniform reimbursement strategy and there will be no balanced or split billing under NHI (Department of Health, 2015).

Wish NHI Reform 7

To deliver quality services and continual improvements in health outcomes (Health 2015).

Service Provision

The NHI Fund will be appropriately financed in order to be able to actively purchase personal health services for all who are entitled to benefit (Department of Health, 2015).

This will be done through accredited private and public health institutions (Department of Health, 2015)).

Reality: Situation on the ground

There is an extensive and well-distributed network of public sector primary health care facilities. Hospitals are less well-distributed (there is an average of 400 people per public hospital bed), with specialist services being heavily concentrated in certain provinces. The number of health professionals working in the public health sector is very low relative to the population it serves (e.g. there are about 4 200 people per general doctor, 10 800 people per specialist, 620 people per nurse and 22 900 people per pharmacist in the public sector) (McIntyre D, *et al.*, 2008).

The NHI Fund will be the single, strategic purchaser of personal health services for the population. It will leverage its monopsony power to strategically purchase services that will benefit the entire population (Department of Health, 2015; McIntyre D, and Ataguba J., 2017)

As a strategic purchaser, the Fund will contract directly with accredited public and private facilities at the relevant level of care, including emergency medical services through selective contracting arrangements (Department of Health, 2015).

The private health sector is very large but heavily concentrated in the large metropolitan areas. There are 3 very large private hospital groups (there is an average of 190 people per private hospital bed). The majority of health care professionals work in the private sector, despite serving the minority of the population (e.g. there are about 590 people per general doctor, 470 people per specialist, 100 people per nurse and 1 800 people per pharmacist in the private sector) (McIntyre D, *et al.*, 2008). Only 30% of the public health institutions have passed muster meaning very few facilities will be accredited to provide care while as the costly private sector is characterized by escalating costs (Hippo, 2016). There has also been a lack of adequate infrastructural improvement in the pilot districts. Progress has been slow due to poor coordination between the National Department of Health (NDoH) and the Department of Public Works (Fusheini and Eyles, 2016).

There is also the lack of progress in establishing the structures for community participation in primary healthcare service delivery- clinic committees and hospital boards. While all the districts were reported to have hospital boards and clinic committees, there is little detail about how these bodies function and the extent to

Benefits package

All Medical schemes have to cover prescribed minimum benefits (PMB) which include inpatient care, certain specialist services and care for most chronic conditions (McIntyre D, *et al.*, 2008).

which they facilitated meaningful community participation (Fusheini and Eyles, 2016).

Comprehensive benefit package: Those using tax funded health services have a comprehensive benefit package with no set of services specified. South Africans have access to a full range of services from PHC to specialized hospitals. Certain expensive services e.g. dialysis and organ transplants are rationed through resource constraints (McIntyre D, *et al.*, 2008).

Benefits covered by medical schemes are usually not comprehensive, resulting in medical scheme members having to make substantial out-of-pocket payments, such as where the medical scheme only covers part of the cost of services, where a service is not covered at all by the medical scheme or where scheme benefits have run out (Department of planning, monitoring and evaluation, 2017).

Unsustainable prescribed minimal benefits (PMBs) that are based on a positive list of medical conditions and where medical schemes are mandated to cover the costs related to the diagnosis, treatment and care (Department of planning, monitoring and evaluation, 2017).

Each scheme offers different benefit packages including PMB and others services.

Considerable co-payments and other out of pocket payments for care outside the benefit package (McIntyre D, *et al.*, 2008).

Access to services

Commitment to covering 100% of the population (Feigl A, Basu S, and McKee M., 2010) and ensure access to health care as enshrined in the Bill of Rights, Section 27 of the Constitution (Department of Health., 2017)

A range of barriers to health service access other than user fees, including an under-supply and a maldistribution of health workers relative to the distribution of the population with the greatest need for health care (McIntyre, Doherty and Ataguba, 2014).

Greater need for health care services among poorer groups and a higher burden of NCDs such as TB, HIV and diarrhoea as compared to the rich (*CHP > Research > Universal Health Care Coverage in Tanzania and South Africa(UNITAS)*, 2019).

Quality of services

Quality of care is defined as safe, effective, patient-centred, timely, efficient and equitable provision of healthcare services to achieve desired health outcomes. It takes

Perceived poor quality of services in the Public sector

Public sector facilities that when assessed against core quality standards indicate persistent problems in the areas of staff attitudes, waiting times, cleanliness, drug stock outs, infection control, and safety and security of staff and patients (Department of planning, monitoring and evaluation, 2017; *CHP > Research > Universal Health*

into account patient safety, meaning the prevention of harm to patients and it employs clinical governance processes to assure quality (Department of Health., 2017).

Care Coverage in Tanzania and South Africa(UNITAS), 2019).

Low staff morale or motivation driven by a sense of exclusion and disempowerment among front-line health workers due to top-down implementation of policy on which they are not consulted or well-informed although they bear the consequences of these decisions; the impact of the HIV epidemic which increased patient numbers; challenges in the work environment such as availability of functional equipment and medical supplies and corruption (Walker and Gilson, 2004).

Long waiting times within the facility lack of availability of drugs and inconvenient opening times (Honda *et al.*, 2015).

Poor job design, performance management systems, remuneration policies, employment relationships, in hospitable physical work environment, shortages of equipment and other tools of trade, workplace cultures and human resource practices, facility workforce planning and career-pathing (Department of planning, monitoring and evaluation, 2017; *CHP > Research > Universal Health Care Coverage in Tanzania and South Africa(UNITAS), 2019)* affect the quality of services

Structural problems plaguing public health facilities.

Fragmentation and poor leadership at the different levels of care that has resulted in suboptimum conditions of delivering quality health services.

Weak accountability mechanisms linked to inadequate, disparate measures and standards for managing performance (good or poor) that is exacerbated by a semi-federal public sector.

Weak systems of governance and leadership due to poor regulation and less accountability in terms of quality and costs (Harrison, 2010; Leader, 2011; Department of planning, monitoring and evaluation, 2017)

Public health infrastructure is poorly located, inadequate and under-maintained ('National planning commission: Diagnostic overview', 2010)

South Africa currently falls short of UHC goals in many respects, including its system inputs (particularly physical infrastructure), outputs (e.g. health service utilisation rates), outcomes (inadequate service coverage) and impact (poor health status) (Ataguba JEO and Akazili J., 2010) .

Acceptability issues in terms of poor staff attitudes, lack of respectful treatment by health workers in the public

Equity and utilization of services

NHI will ensure a fair and just health care system for all; those with the greatest health needs will be provided with timely access to health services (Department of Health., 2017).

sector (*CHP > Research > Universal Health Care Coverage in Tanzania and South Africa(UNITAS), 2019*).

Within each socio-economic group, there is a mix of use of public and private providers.

In 2008, over 80% of service utilisation by the lowest income quintile (a quintile = 20% of households) occurred in public facilities with less than 20% in private facilities (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018)

The majority of health service use in South Africa occurs in the public health sector, both for outpatient services (over 70%) and even more so for inpatient care (over 80%) (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018)

Use of health services and benefits of service use is in favour of the rich (*CHP > Research > Universal Health Care Coverage in Tanzania and South Africa(UNITAS), 2019*).

4.4 Discussion: Potential stumbling blocks to NHI reforms

Financing universal health coverage (UHC) is not only about how to generate funds for health services. It is also about how these funds are pooled and used to purchase services (McIntyre, Doherty and Ataguba, 2014) hence it is important to consider contextual factors that may limit

or enable what can be implemented and achieved in a given country (Carrin G, James C, and Evans DB., 2005; McIntyre, Doherty and Ataguba, 2014) . We will discuss the proposed national health insurance financing reforms point by point and compare the wishes in the white paper vs reality on the ground as well as highlight potential stumbling blocks to achieving them.

4.4.1.NHI financial reform point 1: To move beyond the existing fragmented public and private health financing systems to create a common modern universal health financing system which is cost-effective, trusted by citizens and provides protection against costly health services. *Refer to table 1 UHC financing in South Africa-wishes versus reality for additional insights

NHI plans to do the above through among other measures combining the existing medical schemes into the larger universal scheme covering everyone, so as to create one large pool. The legislation is yet to be enacted but some stumbling blocks seem to lie ahead e.g. the resistance from the medical schemes themselves, a very strong and influential player in the South African health sector (Gilson *et al.*, 2012).

4.4.1.2 Potential stumbling block 1: Medical Schemes as a key stakeholder

Private medical schemes have been reported as standing in the way of the government's proposed National Health Insurance (NHI). The health minister, on the other hand reiterated that the purpose of the NHI is not to destroy the private healthcare sector, but to make it possible for more South Africans to access quality healthcare stressing that his point is that private healthcare has a lot of resources which are not available to everyone. The above statements reveal some tensions and how these are playing out in impeding or promoting UHC is not very clear (*Debate heats up over NHI and medical aid schemes*, 2017). The monopolistic position of private hospital companies (used primarily by white and wealthy population groups) gives companies' power in the health system and strong interests in purchasing reforms and this is likely to give them at least covert power in UHC policy debates (Gilson *et al.*, 2012). With the proposed NHI reforms medical aid scheme membership is likely to decline to about 10% of

population and this is not likely to bode well with those with vested interests (Gilson *et al.*, 2012).

4.4.1.3 Potential stumbling block 2: People as taxpayers and consumers of health services

The poor state of many public healthcare services is another shortfall. Many medical scheme members, who are faced with spiralling above-inflation annual contribution with schemes announcing double-digit contribution increases for 2017, are afraid to resign from their schemes and rely on state medical care because of the long lines of patients waiting to be seen, and the inconsistency of the quality of care they are likely to receive if they are hospitalised among other reasons. For low-cost benefit options to become a reality, fundamental changes need to be made to the Medical Schemes Act of 1998 with regards to the payments for the 270 Prescribed Minimum Benefits (PMBs), the treatment of which all schemes have to cover. This contributes to large contribution increases. On the other hand, if people resign from medical schemes because of the high cost, they become reliant on state healthcare, adding to the burden of the already overloaded and understaffed public health service. On a positive note, many people feel they would support the proposed NHI if the state could prove that it is capable of revamping the existing state healthcare system (*Debate heats up over NHI and medical aid schemes*, 2017). This revamping phase began in 2012 and the results are mixed (Hippo, 2016). Reforms to the public system and its ability to contract out will need to work to give people confidence in the NHI and the new system. There is also the lack of progress in establishing the structures for community participation in primary healthcare service delivery- clinic committees and hospital boards. While all the districts were reported to have hospital boards and clinic committees, there is little detail about how these bodies function and the extent to which they facilitated meaningful community participation (Fusheini and Eyles, 2016).

4.4.2.NHI financing reform 2: To move from voluntary to mandatory prepayment system *Refer to table 1 UHC financing in South Africa -wish versus reality for additional insights

Transforming the health care financing system also requires changing how revenue is collected to fund healthcare services and, even more importantly, how generated funds are pooled and how quality services are purchased (Department of Health, 2015; McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018;). The key focus of the NHI reforms is therefore to create a single, publicly owned and administered strategic purchaser that will actively purchase healthcare services on behalf of the entire population from suitably accredited public and private providers.

General tax is the preferred option of funding (Feigl A, Basu S, and McKee M., 2010). The fiscal context in a country affects the ability of a government to mobilize public revenues overall, which in turn affects the level available to fund health services(Fusheini and Eyles, 2016). The fiscal situation in a country is affected by a wide range of factors, including the level of poverty and economic growth, the composition of the labour market (Fusheini and Eyles, 2016). What has been allocated so far to achieve UHC in South Africa? The White Paper released in December 2015, fails to lay out or discuss any specifics such as how much insurance premiums are going to cost. Only estimates are given as to what it might cost to bring the National Health project to life. The cost of implementation is estimated to be at R225 billion by 2025, but with the economy still under a large amount of pressure, many South Africans are wary about whether this can be done (Fusheini and Eyles, 2016).

4.4.2.1. Potential stumbling block 1: Rampant Unemployment

It is worth noting that there are 13.1 million South Africans who have regular work – just 41 per cent of the working-age population. Of these, just over 8 million have formal, non-agricultural employment. To achieve the average emerging markets employment ratio of 56 per cent, and taking into account population growth, South Africa would have to create 9 million jobs over the next 10 years. The unemployment rate is particularly high for young people

(‘National planning commission: Diagnostic overview’, 2010). Only 39% of South Africans have a job with half of the population between 18 and 25 unemployed, thereby constraining the tax base (Khambule and Siswana, 2017). So one stumbling block is where will the money come from? (*Debate heats up over NHI and medical aid schemes*, 2017). How can premiums be collected from an informal sector where it is complex to work out whether people can afford to pay or not? Who will pay for those who cannot afford in a country with high unemployment levels and such a small tax base?

4.4.3.NHI financing reform 3: To raise additional revenue for healthcare *Refer to table 1 UHC financing in South Africa -wish versus reality for additional insights

The government also offers to explore other sources of funds e.g. to raise up to 5% of the GDP in additional taxes. What could stand in the way here is that South Africa already has a high per capita expenditure on health (8.8% of GDP in 2014 according to the World Health Organisation) considering that the average income of South Africans is fairly low. South Africa spends more on health per capita than many other African countries, yet these countries achieve similar or better positive health outcomes. Van den Heever argues that there is no precedent elsewhere that such a proposal - to raise up to 5% of GDP in additional taxes will address the weaknesses in the current health system (Child K, 2013)

4.4.3.1. Potential Stumbling block 1: Lack of trust in public institutions and regressive aspects of VAT

Proposals for increasing government revenues include the introduction of a payroll tax, a surcharge on taxable income, and increases in VAT. This money would go into a pooled NHI fund which will be publicly administered. Fears exist that this money might not be used as intended, coupled with feasibility concerns that these proposals are not implementable as [32]. An additional concern is that the regressive aspects of a value-added tax increase would contradict the principles upon which NHI is based (Department of Health., 2017). As of April 2018 value-added tax (VAT) was raised by one percentage point to 15% (Merten, 2018). It remains to be seen if this additional revenue is injected into UHC.

4.4.3.2. Potential stumbling block 2: Budgets

The global financial crisis and subsequent recession have exposed vulnerabilities and structural imbalances in major economies. Income levels have diverged sharply in many countries including South Africa. The recent slow pace of economic growth is also a fundamental factor that has contributed to the slow pace of poverty alleviation (Khambule and Siswana, 2017).

Access to opportunity in South Africa is no longer cast rigidly along racial lines, but for poor communities the barriers to progress still seem insurmountable. Marginalised communities around the world now have access to advanced information technology and aspire to a better life, yet stable earning opportunities, income security and modern infrastructure amenities remain out of reach for hundreds of millions of people (National Treasury, 2011).

Spending on the health sector has grown strongly over the past years, from R63 billion in 2007/08 to R102.5 billion 2010/11. Expenditure was expected to grow to R113 billion in 2011/12 and R127 billion in 2013/14 – an average annual growth rate of 7.5 per cent. The function is allocated an additional R18.7 billion over the medium term (R3.6 billion in 2011/12, R6.5 billion in 2012/13 and R8.6 billion in 2013/14) (National Treasury, 2011). South Africa's real gross domestic product fell by 2.2% in the first quarter of 2018 (van der Merwe M., 2018). 2.2% fall is the largest quarter-on-quarter decline since the first quarter of 2009 (Africa, 2019). How this will affect NHI is yet to unfold.

4.4.3.3. Potential Stumbling 3: Political will is fickle

UHC is viewed as a political choice and not a technical one. The technical means are there. Different countries will take different routes but UHC is within reach if citizens are empowered for health care (Stuckler *et al.*, 2010). It's not just the government or the politicians that are responsible. NGOs, advocacy groups, and international organizations also have a role to play in calling attention to persistent inequities and to other issues that are detracting from UHC financing. Everyone has their role in translating these commitments into action (Stuckler *et al.*, 2010). Political will is fickle, and requires constant vigilance to sustain, especially in low- and

middle-income settings, governments face myriad competing priorities (Jordan N, and Savides M., 2018). How this political will will be sustained in the South African context is not clear. A collective political will from local to national government is critical for the sustainability and the effectiveness of the system as it draws resistance from other sectors (Department of planning, monitoring and evaluation, 2017). In 2018, South Africa elected a new President. How will this political change affect NHI? (Jordan N, and Savides M., 2018).

4.4.4 NHI Financing reform 4: To improve pooling arrangements so as to better spread risk and improve cross-subsidisation *Refer to table 1 UHC financing in South Africa - wish versus reality for additional insights

National Health Insurance (NHI) is a health financing system that is designed to pool funds to provide access to quality, affordable personal health services for all South Africans based on their health needs, irrespective of their socioeconomic status. NHI is intended to ensure that the use of health services does not result in financial hardships for individuals and their families. It is envisaged to create a unified health system by improving equity in financing, reducing fragmentation in funding pools, and by making health care delivery more affordable and accessible for the population and ultimately eliminate out-of-pocket payments when the population needs to access health care services. In the long run, households will also benefit from increased disposable income as a result of a significantly lower mandatory prepayment (Department of Health, 2015).

4.4.4.1. Potential stumbling block 1: Medical Schemes independent

In the current system of medical schemes, only those belonging to medical schemes are able to access health services in both the private and the public sectors or access at high out-of-pocket costs. There are more than 100 medical schemes in South Africa, and each scheme has a number of benefit packages, so there is considerable fragmentation into many small risk pools. There is no risk pooling between the tax-funded pool and the medical schemes. The public-private mix is the main equity challenge: while schemes cover less than 14% of the population about 60% of funds are in the private sector (McIntyre D, *et al.*, 2008). Even those with Medical Insurance

are usually denied access to health care before the year ends because they are supposed to have run out of benefits. The biggest share of out-of-pocket payments is attributable to medical scheme members, either in the form of co-payments or on services that are not covered under the benefit package (McIntyre, Doherty and Ataguba, 2014). In spite of this, health care services from the private sector are perceived as faster and better making people willing to sacrifice. The problem however is that the amount people spend on medical schemes is not state-controlled, as it is currently a private transaction between individuals and healthcare providers and/or medical schemes. Medical scheme members are unlikely to hand over these high contributions to the state to fund the NHI (*Debate heats up over NHI and medical aid schemes*, 2017) without the assurance of an equivalent service in return. For a detailed review please refer to table 1 UHC wish vs reality above. The longer-term role of medical schemes is a more complex issue (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018).The consequences of health care providers being the ‘price makers’ in the private health sector context in South Africa is precisely what the Competition Commissions’ Health Market Inquiry is grappling with at present (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018)

4.4.5 NHI financing reform 5: To purchase from a mix of public and private providers
***Refer to table 1 UHC financing in South Africa -wish versus reality for additional insights**

NHI plans to purchase services for all; and will be an entity that actively utilises its power as a single purchaser to proactively identify population health needs and determine the most appropriate, efficient and effective mechanisms for drawing on existing health care service providers (Department of Health., 2017). Currently nine provincial health departments are the major purchasers of the public sector health services and the majority of tax funds flow via these financing intermediaries. Purchasing of services is relatively passive (McIntyre, Doherty and Ataguba, 2014).

4.4.5.1. Potential stumbling block 1: Alleged corruption in the health system

South Africa currently faces issues of looting, corruption, factionalism and nepotism ('National planning commission: Diagnostic overview', 2010; Benatar, 2013; Khoza A., 2017). A further layer of complexity has been added with the centralised implementation and direct management of the pilot NHI districts by the national department of health. The implementation process has challenged the authority of the provincial health departments, who are responsible for policy implementation. Although the NHI pilot district implementation is accompanied by strong political stewardship, only time will tell whether these reforms will result in significant decentralisation and its intended health service benefits (Rispel, 2016).

An earlier analysis of the underlying factors behind overspending in provincial health departments pointed to serious management flaws and leadership gaps, particularly with regard to the health department's core business of service delivery and the quality of such service delivery (Harrison, 2010). Fragmented health service planning, often unrelated to financial and human resource requirements; inadequate: health programme linkages, co-ordination and integration both within the national health department, and between national and provincial health departments; and 10 de facto health departments rather than one strong national health system, mitigated optimal performance of the health system (Harrison, 2010). Years later the situation seems not to have changed (Rispel, de Jager and Fonn, 2016).

Over the four-year period from the financial year 2009/10 to 2012/13, around R24 billions of combined provincial health expenditure was classified as irregular by the auditor-general of South Africa. In the 2012/13 financial year alone, irregular spending amounted to around 6% of combined provincial health expenditure in South Africa (Rispel, de Jager and Fonn, 2016). There were also varying and erratic expenditure patterns in the nine provinces. The reality is that it is not known how much of the irregular expenditure is due to corruption, because of difficulties with direct measures or validated indicators to measure corruption (Rispel, de Jager

and Fonn, 2016). One can only postulate different scenarios: a worst-case scenario where R24 billion was lost due to corruption over a four-year period, or the best-case scenario where R24 billion was lost due to ineptitude or incompetence of public servants and inefficient management systems; the consequences of either of these scenarios are equally disastrous for the public health sector, and the people whom it serves (Rispel, de Jager and Fonn, 2016). Suboptimal audit outcomes for the nine provincial health departments have also been reported (Rispel, 2016).

The fault lines mentioned above have negative consequences for implementation of policies including UHC, and could explain the large gap between these policies and their implementation, making it difficult to achieve the desired results (Rispel, 2016). Many inefficiencies emanate from mismanagement and maladministration (Khambule and Siswana, 2017). Raising sufficient money for health is imperative, but just having the money will not ensure universal coverage, nor will removing financial barriers to access through prepayment and pooling. The final requirement is to ensure resources are used efficiently (Feigl A, Basu S, and McKee M., 2010).

4.4.6 NHI financing reform 6: To use economies of scale and purchasing methods to achieve cost-efficiency *Refer to table 1 UHC financing in South Africa -wish versus reality for additional insights

NHI Fund will assess the population needs to determine health service requirements and to ensure that the required services are available through purchasing these services from accredited public and private providers (Department of Health, 2015).

4.4.6.1. Potential stumbling block 1: Drivers of private health costs

While medical schemes themselves are not run for profit, private healthcare facilities are. Private hospitals have shareholders and are profit-driven. There is also no limit to what private healthcare practitioners may charge (*Debate heats up over NHI and medical aid schemes*, 2017). These two things, together with medicine and equipment costs and the falling rand, contribute to spiralling medical scheme contributions, regardless of where it is obtained. The

consequences of health care providers being the ‘price makers’ in the private health sector context in South Africa is precisely what the Competition Commissions’ Health Market Inquiry is grappling with at present (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018). Those with vested interests are bound to resist proposals that will result in the decline of profits (Gilson *et al.*, 2012).

4.4.7 NHI financing reform 7: To deliver quality services and continual improvements in health outcomes *Refer to table 1 UHC financing in South Africa -wish versus reality for additional insights

The NHI fund will be responsible for purchasing and paying for all health service needs in the country (Department of Health, 2015). Only 30% of the public health institutions have passed muster meaning very few facilities will be accredited to provide care while as the costly private sector is characterized by escalating costs (Hippo, 2016). Legislation and other tools have not yet gone far enough to regulate the private health care sector. Service delivery reforms have produced mixed results and only a third of the public facilities have passed muster. It is also important to highlight that accreditation status is very dynamic with quality of services sensitive to leadership and staff changes. There has also been a lack of adequate infrastructural improvement in the pilot districts. Progress in reforms being piloted has been slow due to poor coordination between the National Department of Health (NDoH) and the Department of Public Works (Fusheini and Eyles, 2016).

4.4.7.1. Potential Stumbling block 1: Provincialization as opposed to District Health Authorities

Additional challenges derive from the constitutional autonomy of provincial health departments as these create conditions for different interpretations of what constitutes a district health system and the structures and mechanisms that are most appropriate to ensure implementation (Rispel LC, Moorman J, and Munyewende P., 2016). The current districts are not functioning as decentralised authorities as originally intended; the head of the provincial department of health remains the accounting officer, and there are marked variations in financial and human resource

delegations across provinces (Naledi T, Barron P, and Schneider H., 2011). The problems are exacerbated by human resource shortages, suboptimal stewardship and leadership, and political contestations that collectively slow progress towards quality services and ultimately accreditation, an NHI requirement. According to the White Paper on NHI, primary health care re-engineering is at the core of revitalising and strengthening the South African health system and this is dependent upon a well-functioning district health system. 22 years into democracy, South Africa still does not have a fully functional district health system (Department of Health, 2015). A functional DHS is expected to ensure the delivery of quality, equitable PHC services (International Conference on Primary Health Care (1978 : Alma-Ata, Organization and Fund (UNICEF), 1978), improve health outcomes for all South Africans (Department of Health, 2010) (but especially those worst off), address the social determinants of health, involve communities, and change the power relations between the centre (province) and the periphery (the district) (Department of Health, 1997). Formal mechanisms of accountability such as district councils and clinic or community health centre committees are either absent or not playing a meaningful role. In addition, district hospitals still function separately from and are poorly co-ordinated with PHC services in many places. Without the appropriate delegations, district health managers cannot make decisions. Hence, the perceived benefits of decentralisation, namely accountability to communities, improved health outcomes and access to quality services, have not been realised (Rispel LC, Moorman J, and Munyewende P., 2016). The largest public spending is by provincial departments of health at 3.8 per cent of GDP and the largest private spending channel is through medical schemes (3.7 per cent of GDP) (Department of Health, 2015; 'Health Financing Profile South Africa', 2016). Funds are allocated from central government to provinces (for all sectors) using a needs-based formula and then each province has autonomy to decide on how it will allocate these funds to individual sectors e.g. health and education (McIntyre D, *et al.*, 2008). Provinces therefore command both financial and administrative power.

There are concerns about the undoubtedly lengthy process required to implement many of the NHI reforms such as delegating management authority to all public hospitals and organisations such as PHC services (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018). A DHS is pivotal to UHC according to WHO, which emphasizes the well-functioning of the entire health system of which the DHS is a part. Whether the financial and ideological challenges will undermine this intent in South Africa, is not known. The roll-out of NHI programs to all districts may require a rethinking of the salience of the DHS (Fusheini and Eyles, 2016).

4.4.7.2. Potential Stumbling block 2: Incompetence and failure of leadership and governance at all levels of the health system

According to Rispel 2016, there are fault lines in the health sector that have negative consequences for patients, health professionals and policy implementation. These include;

- Tolerance of ineptitude and leadership, management and governance failures
- Lack of a fully functional district health system, which is the main vehicle for the delivery of primary health care (PHC)
- Inability or failure to deal decisively with the health workforce crisis (Rispel, 2016) .

Rispel 2016, goes on to highlight the problem of ineffective management, incompetence and failure of leadership and governance at all levels of the health system, exacerbated by a general lack of accountability despite there being many committed, competent, hard-working health service managers and health professionals, contributing to change and doing an excellent job in implementing transformative health policies (Rispel, 2016). These fault lines stand in the way of improved public sector services to compete with the private sector, let alone to get the needed accreditation to become an NHI provider.

4.4.7.3. Potential Stumbling block 3: High HIV burden and a cocktail of epidemics

South Africa has the highest number of people on ARVs. Nearly 3million of the 6.4million people infected get free treatment and the new test and treat approach the health system will need substantially more nurses. This means a doubling or tripling of health workers an

expensive, difficult and time-consuming exercise that will pay off if the country invests now in treating more people. If South Africa were to offer ARVs to everyone who qualifies under the government guidelines, it would cost R50-billion, more than double the R21-billion the state currently spends (UNAIDS, 2018). The effect of the HIV epidemic on UHC efforts cannot be underestimated.

With the introduction of a massive ARV program, non-communicable diseases are now the single largest cause of death. The 2015 overview of cause of death graphically depicts what is known as the quadruple burden of disease (HIV, maternal mortality, violence and NCDs), whereby South Africa faces substantial mortality in all four of the main categories of cause of death (McIntyre D, and Ataguba J., 2017; Ataguba and McIntyre, 2018). Public health infrastructure is poorly located, inadequate and under-maintained ('National planning commission: Diagnostic overview', 2010). South Africa currently falls short of UHC goals in many respects, including its system inputs (particularly physical infrastructure), outputs (e.g. health service utilisation rates), outcomes (inadequate service coverage) and impact-poor health status (Ataguba JEO and Akazili J., 2010). Health system needs evolve over time. A health system that was designed for a 20th century demographic and epidemiological South Africa cannot serve us well any more (Michel J, and Chimbindi N., 2014) calling for a health system overhaul led by innovative leadership (Michel J, and Chimbindi N., 2014).

4.5 Conclusion

Progress towards UHC has been reported in some NHI pilot districts (Fusheini and Eyles, 2016). Sustaining change and preserving gains achieved in the move towards UHC in South Africa is a mammoth task. Policy implementation is not linear and unintended consequences, resistance by some interest groups, need to be negotiated and managed particularly the private sector with vested interests (Gilson *et al.*, 2012). There are ambitious reforms planned for financing and purchasing arrangements through the NHI (R4D, 2019). There are ambitious reforms for reforming PHC re-engineering to raise the quality of services in the public health

system under the NHI (R4D, 2019). There are many stumbling blocks that have been discussed – partly whether there is the political will to see the reforms through, whether the tax and service delivery systems can be reformed enough including eliminating corruption and improving leadership and efficiencies, whether powerful groups such as the medical schemes, the elite and the private hospitals will allow come to the table and put their weight behind the NHI reforms.

We reckon that South Africa has a relatively high per capita spending on health, if only the funds available are pooled and well managed, access to quality health services for all South Africans can be guaranteed (Ataguba JEO and Akazili J., 2010). UHC is viewed as a political choice and not a technical one. The technical means are there but different countries will take different routes (*World Health Summit urges political will to follow up on UHC commitments, 2017*) . UHC is within reach if citizens are empowered and political will is present (*World Health Summit urges political will to follow up on UHC commitments, 2017*). Innovative and sustainable UHC financing and pressure to the state to uphold the political will and commitments are called for if South Africa is to achieve UHC by 2026. Currently there is an imbalance in power within an unregulated health system, in favour of health care providers.

Achieving UHC requires the right policies (OECD, 2016) many of which South Africa is yet to implement.

- the economy is unsustainably resource intensive (‘National planning commission: Diagnostic overview’, 2010).
- the public health system cannot meet demand or sustain quality currently
- public services are uneven and often of poor quality
- corruption levels are high
- South Africa remains a divided society (‘National planning commission: Diagnostic overview’, 2010).

The underlying political and social determinants that undermine access to care must also be tackled to achieve the broader equity and effectiveness goals of UHC (Witter *et al.*, 2019). Achieving UHC for all populations requires the harmonisation of political, social, economic, and health leadership, as well as mature health systems capable of ensuring efficiency and equity ('Trends in future health financing and coverage: future health spending and universal health coverage in 188 countries, 2016–40', 2018). As South Africa moves into putting legal, institutional frameworks and systems for UHC implementation into place (Blecher M, Pillay A, and Tangcharoensathien V, 2016), caution has to be taken as political trade-offs are made on the road to UHC, the needs of less powerful groups may not necessarily be given priority (Witter *et al.*, 2019).

The market won't work – it doesn't work well in the health context (Arrow, 2004). How much South Africa takes heed of the above words of wisdom is yet to be seen.

Limits and Strengths

We would like to acknowledge that our presentation of potential stumbling blocks to NHI monetary reforms are an attempt to raise awareness but our list is not exhaustive. There might be other stumbling blocks we did not allude to in our paper.

WHO identified in its World Health Report (2010) (Feigl A, Basu S, and McKee M., 2010) that the area that is likely to have the greatest impact on improving equity will concern reforming the health financing system (Witter *et al.*, 2019). This is one of the first papers to compare and contrast the proposed NHI financing reforms in South Africa (wish) with the situation on the ground (reality) highlighting potential stumbling blocks. It is very important for countries to track progress towards national goals including UHC (Hosseinpoor *et al.*, 2018).

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Author Contributions

JM, DM and DE conceptualized the paper. JM wrote the first draft of the manuscript and FT, ME, TB, DM, MT and DE revised the manuscript critically providing edits and comments. All co-authors meet the ICMJE criteria for authorship and have read and approved the final manuscript

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Key message 1

As international support for Universal Health Coverage (UHC) grows pace, the issue of how to finance improved financial protection and access to needed health services becomes ever more urgent. Exploring how the South Africa NHI UHC Financing proposed reforms compare and contrast with the situation on the ground, helps highlight potential stumbling blocks that need addressing as SA moves towards UHC.

5. Lest we forget, PHC in Sub-Saharan Africa is nurse led. Is this reflected in the current Health Systems Strengthening undertakings and initiatives?

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“We fail more often because we solve the wrong problem than because we get the wrong solution to the right problem.” – Russell L. Ackoff

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5.1 Abstract

Background: Primary Health Care (PHC) in most African countries is nurse led. In South Africa, PHC has a unique history where efforts to provide holistic health care to rural communities began in the early 1940s. There are initiatives to ensure that doctors including General Practitioners (GPs) get to public clinics in South Africa-great initiatives but bearing in mind the current doctor patient ratios and the difficulties to get doctors into rural areas, until we get there, nurses will be and are providing most of PHC services.

Methods: We tracked policy implementation aimed at achieving Universal Health Coverage in one pilot district in South Africa from 2011-2015. Qualitative data was collected during three phases 2011-2012 (Contextual mapping), 2013-2014 (Phase 1) and 2015 (Phase 2). A theory of change approach was employed. Semi-structured in-depth interviews were held with participants using a standard interview guide. Participants ranged from provincial, district, sub-district and facility actors involved in policy implementation.

Findings: Many health systems strengthening activities are being carried out namely; PHC re-engineering package made up of District Clinical Specialists, School health and Ward based teams, Referral systems strengthening, Management strengthening, and General Practitioner (GP) Contracting.

Recommendations: We found no targeted health systems strengthening initiatives to counteract the challenges faced by PHC nurses which are well documented in literature. What we see currently missing are initiatives directed at the work done by nurses in a PHC setting, to assist them resolve the so well documented challenges they are faced with in their daily work. If PHC is nurse led, we advocate going step by step with the aid of the nursing process and assess what could be done to streamline, strengthen, innovate and support the work a PHC nurse does, guided by systems thinking, hence we propose a Framework for Health Systems

Strengthening in a nurse led PHC setting, that takes into account the challenges and the roles of a PHC nurse.

Key words: Health system strengthening, sub-Saharan Africa, nurse led PHC, Framework

5.2 Introduction

Primary healthcare (PHC) is defined as essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community, through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination (WHO. 2008). PHC in most African countries is nurse led (Department of Health. 2015). In South Africa, primary health care has a unique history where efforts to provide holistic health care to rural communities began in the early 1940s (Maillacheruvu P and McDuff E, 2014)).

Improving the quality of health care is central to the proposed health care reforms in South Africa aimed at achieving Universal Coverage (Department of Health. 2015). There is well-documented evidence globally, that the number, competencies, and effectiveness of nurses are critical in determining the quality of care in health systems and the nature of patient outcomes (& and Corrigan JM. 2007; Unruh LY, Hassmiller SB et al. 2008). There is a positive association between the amount of time nurses spend with patients and patient or nurse satisfaction, as well as patient outcomes and safety (Westbrook JI, Woods A et al. 2010). PHC nurses including nurse managers spend most of their time on direct patient care (Westbrook JI, Woods A et al. 2010).

Primary Health Care as an approach to deliver health care was initially adopted by the South African Government in 1994 (Harrison A. 2010). Since then, much has been done to gear up the health system to implement PHC. Nine provincial departments of health have been established out of the fragmented state of pre-1994 South Africa. Racial and gender inequalities

in the managerial structures have been largely eliminated. There has been a large investment in infrastructure and building of new clinics and facilities to make health services more accessible. Services have been massively scaled up to deal with the burden of disease that includes HIV and associated TB epidemic (Harrison A. 2010). PHC implementation has been fraught with obstacles including failures in leadership and stewardship and weak management that have led to inadequate implementation of what are often good policies (Mangham LJ and & Hanson K. 2010; WHO. 2015). According to Harrison (2010) (Harrison A 2010), the district based system was one of the biggest post 1994 innovations making health management more responsive to local conditions and distributing resources more equitably. It's success has been hamstrung by the failure to devolve authority fully and the erosion of efficiencies through lack of leadership and low staff morale (Harrison A. 2010).

PHC Nurse expected roles

There are many policies being rolled out, one of them to ensure that doctors including General Practitioners (GPs) get to public clinics in South Africa (Hongoro C, Itumeleng NF et al. 2015), but bearing in mind the current doctor patient ratios and the difficulties to get doctors into rural areas, until we get there, nurses will be and are providing most of PHC services. Before one can contribute meaningfully to the strengthening of primary health care, it is pertinent to understand the expected role of a PHC nurse in the South African health system. A PHC nurse is expected to have knowledge and skills in the following areas;

- Chronic diseases and Geriatrics
- Home Based Care
- Health Information System
- HIV/AIDS and STI
- Mother and child's health including immunization, integrated management of childhood illnesses, family planning and antenatal care.

- Mental health
- Minor ailment treatments
- Prevention of Mother to Child Transmission (PMTCT)
- School Health Services
- Tuberculosis

The above programmes have to be implemented at clinic level and it is the responsibility of the primary health care nurse to ensure proper assessment, diagnosis, treatment (implementation) evaluation (meeting of targets, monitoring of achievements and non-achievements and remedial action (development of action plans to address failures) to ensure positive patient outcomes (Wentzel S. 2009). Below we look at the challenges PHC nurses are facing as revealed in literature.

5.3 Challenges experienced by Primary Health Care Nurses

Challenge 1: Data demands

Primary health care centres have reporting requirements to the District Health Information System (DHIS) for the purpose of monitoring and evaluation of healthcare programmes. At present, data in these PHCs is handwritten in registers by nurses and aggregated into data sheets for submission to the District office. Problems with this approach include a high writing burden, constantly changing data formats without supportive training often cited as a reason for poor data quality (Garrib A, Stoops N et al. 2008; Heunis C, Wouters E et al. 2011)

There are at least 17 registers per Community Health Centres (CHC) for recording the attendance of single events related to patient care, specific conditions or procedures such as births, tuberculosis, immunisations and patient consultations (Garrib A, Stoops N et al. 2008; O'Mahony D, Wright G et al. 2014) . In each one, patients' demographic data have to be recorded leading to duplication which nurses perceived to be a waste of time (O'Mahony D, Wright G et al. 2014). Separation of data in different registers raises concerns related to

continuity of care, stemming from the lack of a complete chronological record. Challenges associated with the current paper-based patient record system reported in literature include high recording workload, time spent looking for old registers, entering data after the day's work is finished, duplicate entries, difficulty in keeping track of patients (data in different registers), missing files and lack of training (Garrib A, Stoops N et al. 2008; Heunis C, Wouters E et al. 2011). When there is a high workload, actual recording of data may be done long after the event, recording data the next day-leading to inaccuracies (O'Mahony D, Wright G et al. 2014). In addition, stationery sometimes goes out of stock, leading to recording on scraps of paper that can get lost or misplaced (O'Mahony D, Wright G et al. 2014).

PHC nurses feel that they are neglecting patient care in favour of collecting data;

'It's like we're nursing the books than the patients.' (P26, Female, 37) (O'Mahony D, Wright G et al. 2014).

Challenge 2: Time Management, multiple demands and reduced time for patient care

With more chronically ill patients, public clinics are unable to dedicate sufficient resources for assisting all patients (Maillacheruvu P and McDuff E, 2014) and nurses are unable to provide the government's ideal of administering personalized, community-oriented care (Maillacheruvu P and McDuff E, 2014). The practice environment with staff shortages and performance problems, resource constraints, sub-optimal communication, and unplanned activities exacerbate the difficulties of PHC nurses to deliver high-quality patient care (Armstrong SJ, Rispel LC et al. 2015). PHC nurses seem to be spending a lot of their time in meetings they are summoned to by District or Provincial supervisors and as these meetings are not well coordinated, several meetings can be planned for the same day albeit different venues (Armstrong SJ, Rispel LC et al. 2015) further depleting staff at facility level.

Challenge 3: Cocktail of epidemics at the backdrop of resource shortage (Human and Material)

Barriers to access and equitable care are related to poverty and compounded by lack of trained human resources for health and poorly functional health systems (Zulfiqar A Bhutta. 2017). New and re-emerging diseases have created a new scenario in service delivery as many diseases have defied conventional medical technology. The development of drug resistance complicates the already difficult situation and the situation worsens as people seek health care too late requiring sophisticated treatment, additional drugs, prolonged hospital visits, and slower recoveries. This is aggravated by weak systems of governance on one hand and ecological stress on the other as well as the inability to quantify and analyse the situation with credible data regarding the performance of the health system and the health status undermining the ability of effective decision making (Kaseje D. 2006). Sub-Saharan Africa is experiencing a rapidly increasing epidemic of non-communicable diseases (NCDs), while it continues to face longstanding challenges from infectious diseases. This double burden of disease accompanied by violence and instability, have devastating impact on already strained health systems with significant resource constraints including human resources and brain drain (Nyirenda MJ. 2016).

Challenge 4: Human resource shortages, task shifting and supervision challenges

Gains in global maternal and child health and survival are by no means equal and wide global disparities persist. Sub-Saharan Africa continues to have the highest under-five mortality rates among all regions, with 83 deaths per 1000 live births annually. Although Millennium Development Goal 4 was achieved in some high-mortality countries in Sub-Saharan Africa and South Asia, there are still 58 low- and middle-income countries (LMICs) who are still to reach this target (Zulfiqar A Bhutta. 2017). Globally interventions for new born care in community settings have substantially improved through task shifting using various health-care providers, especially community health workers (CHWs) adding more supervisory duties to the already burdened PHC nurse (Zulfiqar A Bhutta. 2017). Community health workers (CHWs) are an increasingly important component of health systems and programs. Despite the

recognized role of supervision in ensuring CHWs are effective, supervision is often weak and under-supported (Hill Z, Dumbaugh M et al. 2014). Supervision by formal health workers gives CHWs a sense of legitimacy in the eyes of other health workers, the communities served by CHWs, and CHWs themselves (Kane S, Gerretsen B et al. 2010) and a lack of supervision can contribute to CHW dissatisfaction and poor outcomes (Kok M and Muula A. 2013). Ideally, some CHWs would like the PHC nurse to accompany them in the field for support (Austin KE, Rabkin M et al. 2017). Given the clustering of maternal and new born burden of disease in rural settings and among the urban poor, strategies for promoting community demand as well as appropriate outreach through community health workers with appropriate supervision (Zulfiqar A Bhutta. 2017) seems not only a challenge but also adds supervisory demands on the already burdened PHC nurse.

Challenge 5: Lack of supportive supervision, mentoring and problem-solving deficiency

PHC nurses themselves report challenges in getting supportive supervision which they describe as erratic and involving more policing than mentoring (Harrison A. 2010; Armstrong SJ, Rispel LC et al. 2015). There seems to be a talking culture but no action culture when it comes to dealing with challenges in the PHC system. One manager revealed the following;

We keep talking about the problem – but it is never solved - the meetings, meetings, meetings, take up a lot of time. (Respondent 12, public maternity unit)(Armstrong SJ, Rispel LC et al. 2015). “You identify a problem but you have no way to solve it” (Austin KE, Rabkin M et al. 2017).

Improving the quality of health care is central to the proposed health care reforms in South Africa (Armstrong SJ, Rispel LC et al. 2015). A health system is made of six building blocks, service delivery, financing, pharmaceutical and drug supply, human resources, health information systems and leadership. Nurses are the main providers of primary healthcare in South Africa. They are also the largest professional group generating and recording healthcare

information (O'Mahony D, Wright G et al. 2014) and if the data generated is inaccurate, inconsistent and incomplete, the whole health system planning will be based on inaccurate data. If PHC is to be strengthened, it is worth looking at the duties and challenges of a PHC nurse and devise interventions aimed at streamlining processes, and supporting the PHC nurse to do her work effectively and efficiently thereby improving patient outcomes.

Challenge 6: PHC staffing Norms have not been revised to meet the new epidemiological profiles

The national PHC staffing norms of 1:30 patients for Medical Officers (16 minutes per patient per day) and 1:40 patients for Professional Nurses (12 minutes per patient per day) have not been reviewed recently to accommodate emergent disease profiles and comorbidities (DOH. Provincial Strategic Plan 2010-2014). PHC reengineering proposes a revised three stream approach. These three streams are a ward-based PHC outreach team for each electoral ward; School health team strengthening; and district based clinical specialist teams with an initial focus on improving maternal and child health (Barron P. 2011). The ward based and school health teams would provide some curative care, but be responsible for prevention and health promotion. These activities have long been neglected, although they would also add to the duties of a PHC nurse to include support and supervision of these health teams. The District Clinical Specialist Team (DCST) is an additional supervisory team that can provide support to the PHC nurse but also adds additional reporting and data demands on top of the current District reporting and data demands. Where does this additional time needed come from?

5.4 Current Health system strengthening initiatives

Multiple health system strengthening initiatives are being done by the Department of Health in conjunction with other partners' e.g.

- Leadership and Management strengthening
- Referral system strengthening
- Drug supply and supply chain improvement

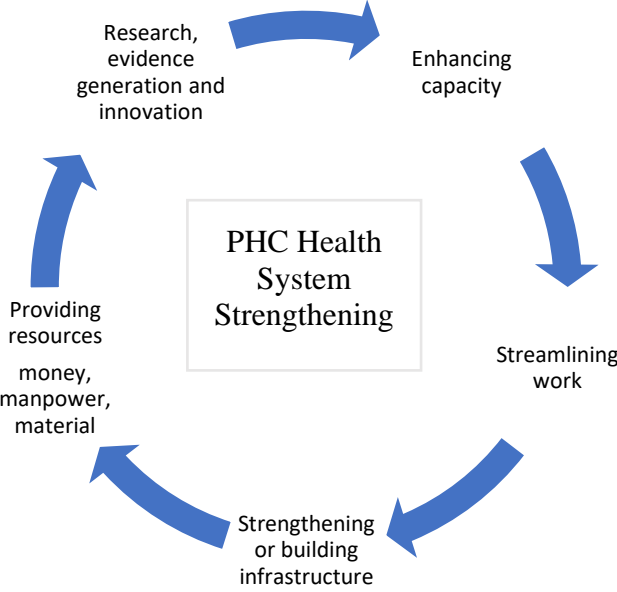
- District Clinical Specialist Team
- Ward based teams
- School health teams
- General Practitioner Contracting

These interventions though needed are often done in isolation from each other, and without coordination with the overall PHC system. If the backbone of PHC in Africa is nurses then we ought to align Health system strengthening interventions to aid these nurses do their work efficiently and effectively. In-order to assess the value of an initiative, one could ask the question what do we want to achieve? Are we;

1. Streamlining work?
2. Enhancing capacity?
3. Strengthening infrastructure?
4. Providing resources?
5. Improving research, evidence generation and innovation?

Bearing in mind the PHC is nurse led; these questions ought to be asked with regard to the duties of a PHC nurse.

Figure 6: Proposed Health System Strengthening Approaches in a PHC setting



What we see currently missing are initiatives directed at the work done by nurses in a PHC setting, to assist them resolve the so well documented challenges they are faced with in their daily work. We advocate going step by step with the aid of the nursing process and assess what could be done to streamline, strengthen and support the work a PHC nurse does, guided by systems thinking. If PHC is nurse led, it is imperative to look at those tasks and responsibilities a PHC nurse does and actively take steps to streamline, innovate and equip the nurses to provide quality patient care hence we propose a Framework for Health Systems Strengthening in a PHC setting that is nurse led, that takes into account the challenges and the roles of a PHC nurse.

5.5 Why Systems thinking

Primary health care like other health systems are complex adaptive systems and the problems faced by these health systems cannot be understood and managed through the cognitive tools we have thus far chosen to use. We need to grasp the increasingly complexity of our social, environmental, health and political arrangements and reach solutions by moving from addressing symptoms and using quick fixes and rather work toward long term solutions using systems thinking (Senge P. 2006; Costa RD. 2010; Marmot M. 2015). In 2015, the world transitioned from the MDGs to the Sustainable Development Goals (SDGs). Although the

maternal, neonatal, child and adolescent health issues remain central, the SDGs are all encompassing and the health goal (SDG3) will require close linkages with other contributing SDGs. These systems are interrelated. For example although a lack of skilled birth attendants and qualified health workers is a large part of the problem, poor health outcomes are also related to complex issues such as maternal empowerment, sociocultural taboos, and care-seeking practices and behaviours during pregnancy and child-birth (Bhutta RE. 2013). It is, however, no longer sufficient to address the major social challenges through a sectoral division of labour and with a short-term perspective when the challenges themselves interact, are interconnected and have long-term effects, hence we advocate systems thinking. Complexity science demonstrates that the wicked problems have no simple cause or simple solution, and interventions in one area could have unintended harmful effects (de Savigny D and Adams T. 2009; & de Savigny D. 2012; & Gleicher D. 2012) in another, hence we recommend systems thinking in dealing with PHC challenges.

The WHO Alliance for Health Policy and Systems Research published in 2009 a seminal report on *System Thinking for Health Systems Strengthening* (de Savigny D and Adams T. 2009) demonstrating the need to go beyond conventional approaches to better design and assess health systems interventions. Pathways to good and poor health can be nonlinear and hard to predict, and health is increasingly understood as a product of complex, dynamic relationships among distinct types of determinants. The health system alone does not have the tools to solve all our health challenges (de Savigny D and Adams T. 2009). Systems thinking approach is aimed at replacing the traditional linear logic of technical determinism, allowing more realistic evaluations through heuristic generalization (i.e., to achieve a clearer understanding of what is happening in PHC's in sub-Saharan Africa, what works currently, what does not and for whom) that way we can respond more appropriately to policy needs taking better account of context, system behaviour, and outcome effects. Of concern is that the conversations and debates

surrounding Universal Health Coverage are rarely tied to those relating to health systems strengthening, community health-worker models, or other health-care delivery priorities (Clinton C and Sridhar D. 2017)

Assessing PHC systems utilizing the nursing process (in nurse led PHC’s) in conjunction with systems thinking, could assist in identifying gaps and opportunities in current HSS initiatives in Primary Health Care systems in sub-Saharan Africa. We reckon this could lead to positive health outcomes as countries move towards Universal Health Coverage. Proposed PHC HSS strengthening framework; see Table 1 below;

Table 3: Health System Strengthening Framework for nurse led PHC systems

Nursing process	Challenges	Current Health System Strengthening (HSS) initiatives	Health System Strengthening (HSS) opportunities	Health System Strengthening (HSS) approach	Systems thinking
Assessment	<p>Equipment shortages and lack of maintenance e.g. Sphygmomanometers that are never recalibrated leading to spurious readings</p> <p>Little time to focus on patient (12 minutes for one patient with multiple co-morbidities)</p> <p>High patient volumes (cocktail of epidemics)</p>	<p>New equipment being bought</p> <p>Clinical skills training</p> <p>Central Chronic Medicine Dispensing and Distribution (CCMD)</p> <p>Ward based teams</p>	<p>No Equipment management, condemning etc.</p> <p>No efficient and effective Supply chain management</p> <p>Revision of PHC staffing norms to accommodate the evolving disease profiles and comorbidities- research based</p> <p>One register</p>	<p>Providing resources</p> <p>Research and evidence innovation</p> <p>Streamlining work</p>	<p>Systems thinking</p> <p>How does this phase affect the other phases and how does this contribute to the performance of the system as a whole?</p> <p>Financing</p> <p>Service delivery- enhancing capacity – clinical skills training</p> <p>Pharmaceutical products</p> <p>Leadership</p> <p>Human resources(HR)</p> <p>Health Information system</p> <p>Where is high leverage? What is the feedback saying?</p>
	Multiple registers				

			Electronic medical records		Streamlining work Innovation	
Diagnosis	Results take long to get back to clinic Results get lost along the way		Onsite basic lab services Electronic Medical Records		Enhancing capacity Strengthening infrastructure Providing resources Research and evidence innovation and	Systems thinking How does this phase affect the other phases and how does this contribute to the performance of the system as a whole? Financing Service delivery Pharmaceutical products Leadership Human resources (HR). Health Information system Where is high leverage? What is the feedback saying?
Treatment and nursing plan	Drug stock-outs Prescribing and dispensing at the same time Too much paper work-use of bar codes	Supply chain management training	Task shifting: Pharmacy assistants could take over dispensing-freeing up time for nurses to focus on patient Time management-Meeting management		Streamlining work	Systems thinking How does this phase affect the other phases and how does this contribute to the performance of the system as a whole? Financing Service delivery Pharmaceutical products-Supply chain mx training Leadership HR. Health Information system Where is high leverage? What is the feedback saying?
Implementation	Staff shortages Multiple, Impromptu and ad hoc meetings, workshops and trainings	Leadership training	Human resources for health (HRH) plan District Health systems (DHS) set up, establishment and management		Enhancing capacity Research, evidence and innovation	Systems thinking How does this phase affect the other phases and how does this contribute to the performance of the system as a whole? Financing Service delivery Pharmaceutical products Leadership HR. Health Information system Where is high leverage? What is the feedback saying? Example: supporting broader capacity building.

in light of (nurse) health-worker shortages across the developing world (Clinton C and Sridhar D. 2017).

Evaluation		Revision of PHC Supervision culture	Enhancing capacity	Leadership and Management strengthening
	Time pressure and lack of continuity of care (multiple registers that get lost etc.)		Research, evidence and innovation	Data use locally-Monitoring & Evaluation of own facility performance ad designing plans for improvement
	Policing culture rather than mentoring approach to supervision	Revision of staffing norms		Systems thinking
				How does this phase affect the other phases and how does this contribute to the performance of the system as a whole?
				Financing Service delivery Pharmaceutical products Leadership HR.
				Health Information system Where is high leverage? What is the feedback saying?
				Example: turning vertical funds directly to strengthen health systems or to assure health care for all members of society (for example, through Universal Health Coverage (UHC) tied to health systems strengthening (Clinton C and Sridhar D. 2017)

5.6 Conclusion

If PHC is nurse led, it is imperative to look at those tasks and responsibilities a PHC nurse does and actively take steps to streamline, innovate and equip the nurses to provide quality patient care for example Central Chronic Medicine Dispensing and Distribution (CCMD) (SAnews24. 2016) initiatives to decongest the clinics so that nurses have enough time to assess, diagnose, plan, implement and evaluate patient care they provide. While the expansion of the public health

care workforce would certainly improve the situation of PHC and nurses and hopefully decrease the long waiting times (Department of Health. 2015), there are more challenges confronting the nurses hence the need for a framework to aid in identifying the gaps and opportunities in current PHC systems strengthening initiatives, based on challenges faced by PHC nurses on the ground.

Strengths and Limits of study

The South African public health system currently suffers from an implementation gap between sound policy frameworks and the delivery of improvements they seek. Current evidence points to gaps between policy and practice without necessarily explaining how this comes about. Very few systems are set up for the purpose of documenting and tracking policy implementation and monitoring in low and middle-income countries (LMIC). This is one of the first such Universal Health Coverage tracking and monitoring systems in South Africa. If securing sustainable change in health inequalities is a current priority, then the importance of tracking, monitoring and documenting UHC policy implementation highlighting, successes, bottlenecks and challenges cannot be overemphasized. This study was carried out in South Africa and the challenges experienced by PHC nurses here might be different from other contexts.

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[5.8 Authorship declaration](#)

JM, TB, DM were involved in research conceptualization, data collection and analysis. JM, DE, FT, ME, DD and LR were involved in conceptualization of paper, analytic appraisal and write up. All authors approved the final manuscript.

5.9 Competing interests

We declare no competing interests.

6.How and why policy-practice gaps come about: a South African Universal Health Coverage context

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6.1 Abstract

Background South Africa, like many other countries is currently piloting National Health Insurance (NHI) reforms aimed at achieving Universal Health Coverage (UHC). Existing health policy implementation experience has demonstrated that new policies have sometimes generated unexpected and negative outcomes without necessarily explaining how these came about. Policies are not always implemented as envisioned, hence the importance of understanding the nature of policy implementation.

Methods Qualitative data were collected during three phases: 2011-2012 (contextual mapping), 2013-2014 (phase 1) and 2015 (phase 2). In-depth face-to-face interviews were held with key informants (n=71) using a theory of change interview guide, adapted for each phase. Key informants ranged from provincial actors (policy makers) district, subdistrict and PHC facility actors (policy implementers). All interviews were audio-recorded and transcribed. An iterative, inductive and deductive data analysis approach guided by Contextual Interaction theory was utilized. Transcripts were coded with the aid of MAXQDA2018 (VERBI software GmbH, Germany).

Results Five groups of factors bringing about policy-practice gaps were identified. (i) primary factors stemming from a direct lack of a critical component for policy implementation, tangible or intangible (resources, information, motivation, power); (ii) secondary factors stemming from a lack of efficient processes or systems (budget processes, limited financial delegations, top down directives, communication channels, supply chain processes, ineffective supervision and performance management systems); (iii) tertiary factors stemming from human factors (perception and cognition) and calculated human responses to a lack of primary, secondary and or extraneous factors, as coping mechanisms (ideal reporting and audit driven compliance with core standards); (iv) extraneous factors stemming from beyond the health system (national vocational training leading to national shortage of plumbers); and (v) an overall lack of systems thinking.

Conclusions South Africa needs to be applauded for adopting UHC. Noteworthy among factors fuelling policy-practice gaps are human factors, perception and responses of actors in the system to a lack of resources, processes and systems, through among others, ideal reporting and audit driven compliance with core standards, bringing about an additional layer of unintended consequences, further widening that gap. Utilizing a systems approach to address challenges identified, could go a long way in making UHC a reality.

6.2 Background

South Africa, like many other countries, is currently piloting National Health Insurance (NHI) reforms and policies aimed at achieving health for all, Universal Health Coverage (UHC). The once obscure idea of UHC has blossomed into a movement embraced by leading authorities in global health (Bump, 2015). Different countries are taking different routes to achieve universal health coverage. Thailand for example, introduced UHC in 2001 and became one of a few lower-middle income countries to do so at the time ('List of countries with universal health care', 2018). Universal coverage is defined as ensuring that all people obtain services they need, of good quality, without suffering financial hardships when paying for them (Evans, Hsu and Boerma, 2013; McIntyre, Doherty and Ataguba, 2014).

The South African rationale for introducing NHI is to eliminate the current two tiered system, where those with the greatest need have the least access coupled with poor health outcomes (Department of Health, 2015). Such differences make the South African Health System fall short of the goal of UHC both in relation to financial protection, equity in financing, equitable access and good quality health care (McIntyre, Doherty and Ataguba, 2014). Primary health care (PHC) is the approach the South African government adopted in 1994 to deliver health care (Ellokor S and Gilson L, 2012). Insufficient attention was given to the implementation of the PHC the first time resulting in a neglect of taking comprehensive services to communities, disease prevention, health promotion and community participation (Harrison, 2010) hence the

renewed focus on re-engineering PHC (Department of Health, 2015). Some of the major challenges facing PHC include inadequate political, financial, human and material commitments, optimal use of available resources, changing management techniques including decentralization and ensuring effective community participation and intersectoral collaboration (Dookie and Singh, 2012a). Historical imbalances coupled with changing patterns of disease and complex burden of communicable and non-communicable diseases also place a huge strain on the public health services in South Africa (Dookie and Singh, 2012a).

The public health system in South Africa currently suffers from an implementation gap-good policy on paper and poor translation on the ground. This is a similar case for other public services such as energy, water, sanitation and housing (Nthabiseng Mohlakoana, 2014). Leadership failures, poor stewardship and weak management have been identified as some of the factors affecting policy implementation (Leader, 2011; Ellokori S and Gilson L, 2012; Department of Health, 2015). Public or government policy is defined as what the government chooses to do or not to do (Burke *et al.*, 2012). The discrepancy between policy and practice has been a subject of concern and fascination to academics, policy makers, implementers and users alike. Discrepancies between policy and practice may be attributed to inadequacies both in policy development and implementation. Policy failure can result from bad policy, bad execution or bad luck (Hunter, Killoran and NHS Health Development Agency, 2004).

Policy implementation is defined as the mechanisms, resources and relationships that link policies to program action (Bhuyan, Jorgensen and Sharma, 2010). Too often policy assessments emphasize outputs or outcomes but neglect the policy implementation process, which could shed light on barriers and facilitators of effective implementation (Moore *et al.*, 2015). Assessing policy implementation process opens up the black box to provide greater understanding of why programs work or do not work and the factors that contribute to program success or failure (Bhuyan, Jorgensen and Sharma, 2010). Has the intervention had limited

effects because of weaknesses in its design, communication or implementation (Moore *et al.*, 2015)? Capturing what is delivered in practice with close reference to the theory of intervention can help ascertain the policy-practice gap (Moore *et al.*, 2015).

Purpose and significance of study

Challenges faced by actors during the implementation process are numerous (Stone, 2001; Hunter, Killoran and NHS Health Development Agency, 2004; Spratt, 2009; Bhuyan, Jorgensen and Sharma, 2010; Harrison, 2010; Dookie and Singh, 2012a; Ellokori S and Gilson L, 2012). We reckon that while it is important to identify challenges faced by actors during implementation, which tend to also vary according to context (Bressers Hans., 2004), that on its own does not explain how the presence of these challenges lead to policy practice gap. Very few systems are set up for the purpose of monitoring and tracking policy implementation in low to middle- income countries, capturing how and why they fail or succeed (Hongoro *et al.*, 2018). Few studies have focussed explicitly on developing a qualitative understanding of the experiences of those at the decision-making level (province, district) and (facility) frontline, comparing and contrasting their implementation experience of the same policies (UHC). In this paper, we focus on presenting the perspectives of both policy makers and policy implementers. Very little is also known on what actors (policy makers and policy implementers) do when faced with policy implementation challenges in their day to day work, and how actions undertaken, may lead to a policy-practice gap. This research is a broader attempt to cover that gap in research. This paper uses contextual interaction theory (CIT) model to extensively show how actor characteristics influence policy implementation and how they in-turn influence each other (Bressers Hans., 2004). Even though the CIT graphical model pays attention to the interaction between key-actor characteristics, they were never before really used in empirical research to create a more holistic view of the implementation situation (Nthabiseng Mohlakoana, 2014). This is one of the first attempts to demonstrate a graphical model paying

attention to the interaction between key actor characteristics using empirical research in a UHC context.

Contextual interaction theory: a conceptual framework

The complexity of the policy implementation process has challenged researchers to develop theories and models, albeit with a limited number of explanatory variables that predict how and under what conditions policies are implemented (O'toole, 2004; Spratt, 2009). Scholars have agreed that implementation is far too complex to be accounted for by a single theory (Signe, 2017). On the other hand a theory or model provides a framework for systematically identifying and reporting factors implementers perceive as affecting the implementation process (Spratt, 2009). We identified the Contextual Interaction Theory (Bressers Hans., 2004) as it provides a relatively simple, empirically tested framework for identifying fundamental issues underlying barriers within an implementation network. The basic assumption of the Contextual Interaction theory is that the course and outcome of the policy process depends not only on inputs but more crucially on the characteristics of the actors involved particularly their motivation, power, resources and interactions (Bressers, 2009). All the other factors that influence the process do so because of and in so far as they influence the characteristics of the actors involved. The theory does not deny the value of multiplicity of possible factors, but claims that theoretically, their influence can be best understood by assessing their impact on motivation, information, power, resources and interactions of the actors involved (Bressers Hans., 2004).

The discussion of actors includes policy makers at provincial, level where the task of operationalising NHI reforms had been assigned (Oboirien *et al.*, 2018) and policy implementers at district, subdistrict and facility levels in the Primary Health Care System. One of CIT's key assumption is that factors influencing implementation are interactive. The influence of any factor, whether positive or negative, depends on the particular context. The

theory distinguishes a set of core constructs or concepts related to the actors involved which jointly contribute to implementation. Core constructs are:

Motivation: The level of importance the actors place on a policy and the degree to which policy contributes to their goals and objectives affects implementation. If actors have low motivation, they may ignore implementing the policy. Examining motivation helps to understand the perspectives of implementers, their belief system, value priorities and perception of the importance and magnitude of specific problems often revealing root causes of implementation barriers (Spratt, 2009).

Information: Successful policy implementation requires that those involved have sufficient information including technical knowledge of the matter at hand, levels and patterns of communication between actors. For example, do those responsible for implementation actually know with whom they should be working and who the policy should benefit? Do they know which department is assigned to lead the implementation and how the programme will be monitored? How is information and communication between actors coordinated? Have guidelines been developed and are they readily available? (Bressers Hans., 2004; Spratt, 2009).

Power: Who is empowered to implement policy and to what degree? Power may derive from formal sources such as a legal system e.g. appointment or from informal sources such as charisma or being an elderly.

Resources: Having adequate resources for the intended action is important for actors to realize policy implementation goals. Resources provide the capacity to act (Oboirien *et al.*, 2018). The relevance and availability of resources influence the actors motivation which in turn influences the whole policy implementation process (de Boer and Bressers, 2011).

Interactions: interactions predict the level of collaboration among and between actors which in turn influence policy implementation. They must be considered to further analyze barriers to implementation. These interactions can take different forms from cooperation, passive

cooperation, forced cooperation, opposition or joint learning. In-turn actors collaboration depends on how they perceive the problem being addressed as a priority, how convinced they are that there is an acceptable solution, that taking action now is in own best interest and if they have implementing capacity (Bressers Hans., 2004; Spratt, 2009). Specifying the above constructs facilitates the development of tools to measure the level at which each of the core construct contributes or hinders implementation (Spratt, 2009). These central CIT tenets guided our analysis and interpretation of findings in this study.

6.5 Methods

A qualitative, exploratory case study design utilizing a theory of change (TOC) approach was followed to explore universal health coverage policy implementation experiences. TOC is a theory of how and why initiatives work (Weiss C.H., 1994). TOC is a tool that describes assumptions actors have, explains steps and activities they take to achieve goals and connections between these activities and the policy outcome (Weiss C.H., 1994). Thus, theory of change allowed actors at provincial, district, subdistrict and facility levels to reflect on their assumptions, perceptions and experiences in the implementation of policies aimed at achieving UHC. An iterative, inductive and deductive data analysis approach guided by contextual interaction theory was utilized.

Research setting and sampling

Ten pilot districts were identified by the department of health and selected as National Health Insurance (NHI) pilot sites. The National Department of Health (DoH) selected these sites based on poor performance on key health indicators like high maternal and child mortality rates (Fusheini and Eyles, 2016). UNITAS purposively selected three out the ten selected NHI pilot districts in South Africa. A case study design was used for this research. A case study design is defined as an empirical inquiry that investigates a phenomenon within its real-life context (Press Academia, 2018). This study is situated in only one of the three districts, district X (name withheld for anonymity reasons). The case was the district (X), conveniently selected as the

only NHI pilot district in that province at the time. Managerial support and willingness to participate in the study also guided site selection.

Study aim

The study aimed at tracking NHI policy implementation process through the engagement of policy makers and policy implementers in order to explore, identify and describe why and how policy-practice discrepancies come about in UHC context.

Central question

What bottlenecks and challenges are you experiencing in your current role as a UHC policy maker/ implementer? (Information, motivation, power, resources, interactions and others).

Sub questions

How and why do discrepancies between policy and practice come about from your (actors) current policy implementation experience. Identify and describe an instance(s) in the course of duty, where you (actor) or colleagues deviated from policy?

District health system description

A district health system (DHS) is the cornerstone of the South African health system (Department of Health, 2015). This is a geographically demarcated area with health care facilities to serve that population. Primary health care facilities serve as the first point of contact with the health system, followed by community health centres (subdistrict), which are slightly bigger, with resident doctors doing minor surgeries like caesarean sections. Cases that cannot be handled at this level are then transferred to the district hospital, run by a hospital management team under the leadership of a chief executive officer. The district itself is run by a district health team, headed by the district manager. She is supported by programme managers, primary health care supervisors and subdistrict managers among others, to provide support to health facilities. The district manager reports to the provincial authorities who in turn report to national authorities.

Research participants

Key informants ranged from provincial actors (policy makers) where the task of operationalising NHI reforms had been assigned (Oboirien *et al.*, 2018), and district, subdistrict and PHC facility actors (policy implementers). Purposive sampling of actors at provincial and district levels was based on, their knowledge and involvement in NHI activities, their availability at the times of interviews and willingness to participate. From district to PHC facility level, all actors were involved in NHI policy implementation and the district and subdistrict managers further assisted in the purposive selection of these key informants. Senior management, doctors and nurses from one district hospital, two community health centres and 10 PHC facilities were involved in the study. No patients were involved since their role in policy implementation is limited. See table 1 for Key Informant summary.

Table 4: Overview of key informants, research phase, role and where they worked (health system level)

Health Level	System	Role	Contextual mapping	Round 1	Round 2	Total
Provincial		Policy maker -making sure NHI policies are carried out	1	1	1	3
District		Policy implementers ranging from district manager, programme managers, district clinical specialist team, Emergency rescue service manager and PHC supervisors with policy implementation responsibilities including the PHC supervision manual	1	5	4	10
Subdistrict		Policy implementers at subdistrict level ranging from CEOs managers, nurses and doctors implementing policies aimed at UHC as well as providing direct patient care	3	12	8	23
PHC facility		Policy implementers including operational managers and staff in PHC facilities implementing policies aimed at UHC as well as providing direct patient care	-	19	16	35
Total			5	37	29	71

PHC – primary healthcare, NHI - National Health Insurance

Data collection

Qualitative data were collected during three phases 2011-2012 (Contextual mapping), 2013-2014 (round 1) and 2015 (round 2). A theory of change approach was employed. In-depth face to face interviews were held with participants using a theory of change interview guide adapted for each phase (*Appendix S1* in the **Online Supplementary Document**). This was informed by an iterative process of data collection and engagement with actors from contextual mapping through round one and two. Interviews took place in departmental offices and buildings where the actors worked, at a time suitable and agreed to by participants. The duration of each interview varied from 2-3 hours. Two researchers at every occasion, conducted the interviews in English. All participants were qualified professionals who had no problems understanding or responding in English. Universal coverage in Tanzania and South Africa (UNITAS) obtained full ethical approval for the study granted by the University of KwaZulu-Natal biomedical research Ethics Committee; REF BE197/13. Support letters were provided by the provincial and district offices in our study site. All interviews were audio-recorded. All participants gave informed and signed consent and were free to withdraw from the study at any time.

Contextual mapping was carried out before the roll-out of NHI policies (2011-2012). The goal of this phase was to assess the readiness of the district to rollout NHI policies. At this stage, only senior participants at provincial, district and subdistrict level (n=5) were interviewed using a semi-structured theory of change interview guide. Open ended questions were used to explore participants' knowledge of NHI policies, knowledge of beneficiaries, assumptions held, challenges on the ground and activities they had planned to translate policy into practice. (See *Appendix S1* of the **Online Supplementary Document** for interview guide).

The first round (2013-2014) interviews involved actors from province to PHC facility level. Interviews were held approximately one year after NHI policy roll-out, and the goal of round 1 interviews was to elicit the experiences of policy makers and implementers one year into policy

implementation. Utilizing the theory of change interview guide, we explored their understanding of NHI, who the intended beneficiaries were, their assumptions as well challenges they were experiencing including challenges with regards to Information, Motivation, Power, Resources and Interactions. The same provincial and district and subdistrict actors interviewed during contextual mapping were also interviewed during round 1. At hospital level and community health centre (CHC) level, management including senior doctors, operational managers and clinical staff took part in the study. At PHC facility level, operational managers and at least two other PHC nursing staff were interviewed (n=37). Occasionally, through-out the research, a facility data capturer was interviewed to fill the gaps on statistical questions like PHC head count, whenever the nursing staff were unsure.

The second round was carried out in 2015. The research took place in a context of provincial moratoria on human resource recruitment, hence there was considerable high staff turnover and human resource shortages (Oboirien *et al.*, 2018). During this round, a new provincial NHI actor was interviewed. She herself was already on her way out as she had also just resigned. Most of the district actors from first round were interviewed, excluding one manager who had resigned and a senior one who had no time. The same subdistrict actors and many PHC facility managers and staff took part in this round (n=29). Despite the high staff turnover, including resignations and the death of one PHC operational manager, many participants were interviewed at least twice during the 5-year period. The goal of round 2 was to elicit from actors what they had achieved in terms of NHI policy implementation during this period. We explored with each participant, what had transpired since our last visit and what the participant had achieved in terms of activities they had planned to carry out. If they were successful, we explored for factors that facilitated implementation and if they failed to carry out the planned activities, we also explored for factors that hindered implementation. It's important to highlight that there were cases of successful policy implementation that were achieved, for example

central chronic medicine dispensing programme (CCMD) (Department of Health, 2016) but since the focus of this paper is on policy-practice gap, these will not be presented in this paper.

Data analysis

Interviews held in all three phases, contextual mapping, first round and second round were audio-recorded, transcribed and coded for emerging themes. An iterative, inductive and deductive approach guided by CIT theory was utilized. Transcripts were coded with the aid of MAXQDA2018. Trustworthiness criteria were used to evaluate rigour for this study (Forero *et al.*, 2018). Trustworthiness concepts included dependability, credibility, confirmability and transferability. To ensure dependability we described data collection process in detail and two researchers experienced in qualitative methods, kept reflexive individual journals through-out data collection and analysis. Debriefing after interviews was done daily in the field. The two researchers further analysed the data independently before reaching consensus under the supervision of an experienced qualitative researcher. To ensure confirmability findings were discussed with supervisors and co-authors experienced in the field, and their responses were incorporated. To enhance transferability, participants, context and process of analysis have been described in detail (Forero *et al.*, 2018). We achieved data saturation (Saunders *et al.*, 2018) and data source triangulation, through interviewing actors from different levels of the health system.

6.6 Results

We present the perspectives of actors from every level of the health system starting from provincial, district, sub-district to facility level comparing and contrasting actor experiences, meaning and perceptions with regards to policy implementation experiences and how policy-practice gaps comes about. Deductive themes, CIT constructs and inductive themes (emergent themes) were so connected and interrelated, so much so that presenting them separately would have led to a loss of data and relationships, critical in demonstrating the nature and level of

complexity our findings revealed. Below we discuss these deductive themes highlighting connections, interconnectednesses as well as inductive themes.

Findings are firstly presented according to CIT constructs (information, motivation; power, resources and interactions), then a presentation of inductive themes generated in the analysis is presented. Both deductive and inductive themes were further categorized into five groups namely: primary, secondary, tertiary, extraneous factors and an overall lack of systems thinking.

- (i) Primary factors stem from a direct lack of a critical component for policy implementation, tangible or intangible e.g. human, infrastructure and material resources, information, motivation, power).
- (ii) Secondary factors stem from a lack of efficient processes or systems (budget processes, limited financial delegations, top down directives, communication channels, supply chain processes, ineffective supervision and performance management systems).
- (iii) Tertiary factors stem from human factors (perception and cognition) and calculated human responses to a lack of primary, secondary or extraneous factors as coping mechanisms (ideal reporting and audit driven compliance with standards as a result of policing supervision).
- (iv) Extraneous factors stem from beyond the health system (national vocational training leading to national shortage of plumbers), and
- (v) An overall lack of systems thinking. Systems thinking is a disciplined approach to examining problems more accurately and completely before acting, bearing in mind interconnectedness, moving from observing events to identifying patterns of behaviour over time, to reveal the underlying structures driving those events and patterns (Senge, 1999).

The five groups are presented in the discussion section followed by diagrammatic representations of relationships alluded to by participants. Diagrams are not exhaustive of all relationships mentioned.

CIT tenet: information

Many participants were aware of the fact that they were a pilot site but lacked details of what their roles were. The most informed were those who had attended the Minister of Health road shows. They demonstrated an understanding of what NHI meant and were typically provincial, district and some senior facility actors that had been handpicked to attend the meeting with the Minister. The human factor seemed to play a role here. Access to information seems dependent upon seniority, who delivers the information (e.g. Minister) but also how the information is delivered seems to matter, if it is to be effective (in this case face to face). Below is what a participant said:

“Well in terms of the NHI, we had the first Doctor Motsolaedi`s road show. Well, I understood that they are looking at equal healthcare for everybody. We`ve also been motivating that for our patients. We also understood that, at some time, by 2014, everybody will be receiving the same healthcare. Right now, we`ve got the private sector, who are performing at a very high, a much higher level than us, but that`s because they have all the resources and things like that. So, hopefully one day, we will also be able to perform at that level, and offer that high-quality care to our communities.”-district actor contextual mapping

Attending the minister`s road show helped participants understand what NHI meant but even some senior participants left the road show unclear of what it meant to be an NHI pilot site as revealed by one participant below:

For me I always think it is a challenge that we are told we are a pilot, but we are not in essence a pilot site. Yes, we are a pilot site, but we are not piloting, because if you are a pilot site, I think it says you must try things that have never been done before, and see if they are working or not working. We cannot be guided by the same principles like the other sites, that are not piloting. If we are told that we are pilot site, but we are still being guided by same guidelines and policies, that guides other people, so we are not piloting. Because if we are a guinea pig, then they must allow us space to say we can try this and I can then say I tried this, it worked, I tried this, it did not work because of one two three, but now being in this environment, we cannot try something because we are confined.” -district actor contextual mapping

Many frontline actors who did not attend the road shows not only demonstrated little understanding of NHI but were also not clear of their roles in this regard from round one throughout to round two when the study ended. Below are excerpts from subdistrict to facility actors during round one through to round two.

“Us here on the ground and I wanted to come to this. we don't liaise with people from the province, we only liaise with people from the district. With the district manager and the other people, so we don't know much on the level of the people in the province and so on, but I don't think it (NHI) was introduced to us on the ground properly, we were just told this is NHI, its coming and we must do this. We did not understand what that means because most people couldn't tell us what that meant. So being a pilot site they would tell us this is from NHI budget and brought us new linen, new beds in which they put in one ward, which is known as the NHI ward, but you are not told what you are supposed to do. You get one or two renovations and new linen,

and when the provincial member of the executive committee (MEC) and national come to visit, they take them to that ward, because it's been renovated and so forth, but the ground people do not know what they are supposed to do, for this pilot phase to actually succeed, they just think it's something that will happen so their work continues as normal on the ground.”

-subdistrict actor round 1.

“We just heard on the radio that NHI is coming ...but nobody came to us to explain what NHI means...”-facility actor round 2.

“Yes, I will tell you, for instance, my understanding of NHI was to say, a patient can go wherever they want, whether private or government, wherever, to seek care. The care would be standardised and any patient can go anywhere where one wants including private sector, get care, and the government will reimburse the private sector, and the standard of care would be the same in private and public sector. The patient will have freedom to go wherever they want to go, and if the charges in private are higher, the government is going to subsidize the private sector. You see, that was my understanding of NHI. Now I have not seen that happening, you get that point? So, I might tell you that NHI is not happening because of that which was my understanding.”-subdistrict actor round 2.

Communication

Communication was said to be one-sided, top down and ineffective, making access to information difficult as revealed below:

“Top down process, so the staff here are not consulted before the policy is finalised you see. Before the policy is finalised there should be quality discussions with all the relevant stakeholders. We only heard about NHI when

everything was finalised... Everything is finalised, national adopts them then they send them to the province and then from the province to the district, district to the hospital and clinics they come.” -subdistrict actor round 1.

Some participants proposed having change agents or supervisors, who could orientate them so as to implement policies effectively. Below are statements of participants in that regard:

“It’s very difficult because right now they just do not visit us, if maybe they could orientate us, introduce us to these things nicely. But they don’t do that, like the national core standards (NCS), they just pushed the files; they gave us the files in one of the meetings. We didn’t even know what these files were for, what the content was. It was only after some time, that they came and asked for NCS and said check in your red file, check in your green file. It was then that we noticed “oh there is the red file.”” -facility actor round 1.

“We lack support of our district office. We need the devolution of power; if they could give power to us- they form these long lines of communication, that doesn't work for us and often they make agreements without involving us.”

-facility actor round 1.

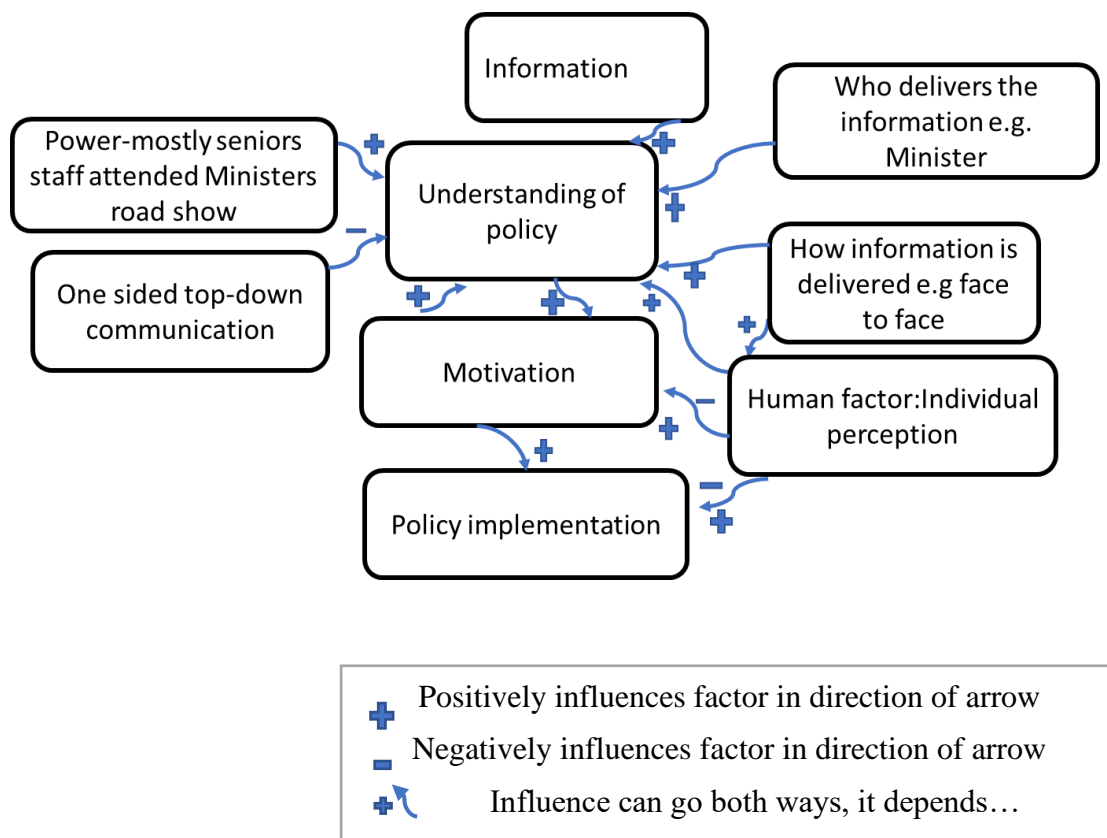
“The communication is very poor. There is no communication. I mean if they want us to put all this into practice, we need staff to go for training. They have got a big file here. National Core Standard file. They want us to do audits, but we have not been to a workshop to show us how we should you go about it. I do not know if what I am doing is right or wrong.” - facility actor round 2.

“What happens is that people at management level go to these meetings (workshops and road shows) but the people on the ground us, are expected to implement, but we have not been trained.” -facility actor round 2.

Human factor-perception

The human factor was revealed to play an important role in policy implementation. Of interest is the role of perception. Exposed to the same information and format of communication, face to face, actors understanding of NHI and roles differed. Policies with high levels of ambiguity or conflict can lead to non-implementation (Matland, 1995). Two team members, who received the same orientation training, had at the end a totally different understanding of what their roles in policy implementation were, with one saying clinical role and the other administrative role. These perception differences seem to be affecting the policy-practice gap. See **Figure 2** below for some of the relationships and connections alluded to by participants.

Figure 7: Summary depiction of Information led policy-practice gap



CIT tenet: motivation

The announcement of NHI brought hope to many South Africans and professionals alike, and this NHI optimism could be felt during contextual mapping as revealed by one participant below:

“You must really appreciate that there is progress that and also within the programme, the NHI, there have been clinics, that have been identified as ideal they are called ideal clinics, prototype where there is a lot of support to make them benchmarks for the rest of the other clinics in terms of implementation of the national core standards, in terms of the queues in the clinic, in terms of the infrastructure, how should it look like, so there is a lot of support from national to ensure that these clinics become the benchmark for the rest of the district, so we are fortunate that in this district, there are three clinics that are actually receiving support.” -district actor contextual mapping.

High intrinsic motivation

During both rounds one and two, most facility actors exhibited high intrinsic motivation with some facility actors reporting acting against policy, so as to ensure good patient outcomes at the risk of prosecution e.g. by taking patients to hospital in own cars when ambulances did not respond.

“If it demands that you take the client in your cars every day, you just do it for the sake of the client you know.” -facility actor round 1.

Love for patients, their work and support from family as well as faith, were expressed as factors that motivated staff to come to work during both rounds one and two as revealed below:

“I like my job...also, my clients, I love them. They motivate me because they are not giving me a headache... I just like interacting with patients....”

-facility actor round 1

The things that make me come back to work is, I think of the patients... my

daughters as well, I have two daughters who are very supportive and very understanding....and support from my church as well. Yes, prayers you know, are a strong resource to fall back on.” -facility actor round 2.

CIT tenet: resources

All facility actors expressed how the unresolved challenges and seemingly lack of support and solutions from the top, were eroding their motivation. These challenges ranged from equipment, human resources, infrastructure, maintenance, and material shortages. Actors at provincial district and facility level had often varying perspectives on the same issues as revealed below.

Human resource challenges

“Yes, for NHI, if you’re asking about resources for NHI, within the period that I’ve been here, I think we have more than enough resources. It’s a question of how we use the resources. You go to facility A and facility B. The bed occupancy rate here (Facility A) is consistently around about thirty per cent and fifty per cent. The bed occupancy rate here (Facility B) is probably let’s say around seventy per cent. Because they in government have a generic approved organisational structure, you still have the same number of nurses in both facilities. What is it that they are doing if these organisational structures were designed for a two hundred and fifty bedded hospital, which is consistently operating at a hundred births per year? Compare the clinics that you’re having in your area. We have the resources. Some of them are fine, well utilised. I went into another facility and found there were more nurses than patients on the ward, but these patients were lying in the beds-neglected. We went to another facility, took a walk about and this was a maternity ward. The nurses were having their ankles swollen. They’d been standing the whole day since morning, since they reported on duty. They were actually grabbing

their tea whilst working because probably unfortunately we came on the wrong day. We left that ward. We went to the surgical ward. We found nurses sitting at the nurses' station. They said to us now we are done with our said rounds. The doctors came in the morning. We gave patients their medication and we did everything and so they sat at the station. You have a nursing service manager, unit managers that have been doing rounds. They can't take the decision to say, today the workload is this, let us move nurses from the quieter ward to this side-busier ward. So those are the issues until such time we manage those systemic issues. So, to answer the question of resources, we can say, now we have more resources, the question is how much are we losing on the wastage?" -provincial actor round 1.

"...we are so short-staffed, because every month it seems somebody is resigning or retiring and with the workload and all that the staff is so few. It's worse if you work in Room 5, there's too much, you become mentally exhausted. You are constantly seeing patients, you are mentally exhausted and then your stress levels are high and then you find out your colleagues, some of them are not on duty because they are burnt out, and then the strain is on you." - subdistrict actor round 1.

"Shortage of staff, it's the main challenge here." - facility actor round 1.

During round two most facility actors expressed human resource shortages as dire to the point of affecting their well-being, quality of care and fuelling staff patient attitudes as revealed below:

"I think it is very demoralising for the staff. It causes a lot of heart ache... and besides demoralising them, it increases the absenteeism rate, they get sicker, they get more tired. It impacts on their attitude towards patients, because they

come in day in and day out. They are seeing the same thing and they know that they actually have no control over it. You cannot say to the patients, today I am only one so I can only see 10 patients. If there is 100 you have got to see to 100. She is going to miss something out you know, so it does have an impact and also affects the expectations of the patients. You know I have come to you. I do not care whether you are a Tertiary, Regional facility or whatever. I have come to you, so if I need brain surgery who must do it for me? You know so that whole thing is not understood that well. So, it is as if the staff get squashed in the middle of expectations from higher up and expectations from the patients. That is in-turn resulting in the high staff turnover, staff getting fed up, increase in adverse events, increased absenteeism and all of that.”

- subdistrict actor round 2

“What is your level of accuracy when you are seeing 100 patients and what is the standard of care? I can see a person and give them five minutes of quality care but by the time I have seen patient 60 I am exhausted and I am moving from one program to the next program to the next and I am getting muddled up.” - subdistrict actor round 2

Staff shortages and absenteeism

Some expressed how being overworked was leading to absenteeism consequently creating a vicious cycle as expressed below;

“Staff shortage affects us a lot. Because, as you see till now, we have not had breakfast. ...we don't have tea. Because of that sometimes you end up not doing a patient assessment thoroughly because of overload, you know. So sometimes, while I'm doing HCT (HIV counselling and testing), I have to check the patient status, I have to do a Pap smear, I have to do all the other

requirements for the patient. Maybe it takes an hour or 45 minutes. So, the patients end up complaining, we are working slowly, you know, they don't understand.” - facility actor round 2.

“Because of the staff shortages, you know what needs to be done on the patient, but sometimes you simply do not do it, because you don't get time. You are always over worked, so you would rather stay absent from duty or go see a doctor, so that you can do your own things sometimes” - facility actor round 2.

“...maybe because of the shortage of staff and too much work, people get demotivated and decide to stay away and be sick sometimes, when they need a break. I think they are burnt out. Yes, because even me, I get so much of burnout. If I could, I would go and get admitted and lie down for two days in hospital, you know. Well, I can't because things will fall apart here. So, I have to be here every day. I have backache, I'm struggling and I come in pain anyway.” - facility actor round 2.

Infrastructural challenges

Some policies dictate that the patients be treated separately and yet some facilities do not have the sufficient space. Infrastructural challenges were revealed as a major stumbling block, preventing many actors in this district from implementing certain policies for example, the three streams approach, where patients with different ailments follow different queues, so as to reduce cross infections. Provincial, district and facility actors shared the same concern as revealed below:

Some facilities, particularly primary health care facilities have a challenge and with the extension of programmes now like my colleagues are correctly saying, the old clinics were structured in such a way so as to take care of the preventative

components like family planning and immunisation and now with HIV and the ARV clinics, there are so many problems and we need more space.” -district actor round 1.

District actors not only acknowledged these infrastructural challenges but also expressed helplessness in that regard as revealed below:

Otherwise other challenges are beyond us, like the infrastructure ... because when you go there (to facilities), they think you are coming with all the answers and yet you are not, because really, I think even the way how to handle that, is not very clear to us, except to say write some motivational letters for this. We try to enforce them to do their work wherever they are. They should use whatever resources that they have at that time. But in other situations, you can see that really you are forcing them to do something that is impossible. There is no space. When you are talking about infection control, we too see that what we ask of them really, becomes unrealistic.” - district actor round 1.

“What I am saying is that infrastructure, as much as we can recommend, it is not within our control. We can recommend that is the best I can do, or say send a motivation letter there, but it is a process and the structures in our district, are built in phases actually. There is phase one up to phase five and even if you want the clinic to be built, but the clinic falls under phase five, that is long term. So, you can recommend but we cannot control that.” - district actor round 1.

“This is a very old clinic and we are expected to implement the ideal clinic; the infrastructure does not allow for that. In the ideal clinic, you have to divide the clinic into three streams, chronic, minor ailments and mother and child. But looking at this infrastructure, it does not allow for such. We’ve

tried to divide the clinic into three streams, and ended up not having space for the chronic part. We ended up dividing chronics into two, non-communicable and communicable on the other side.” -facility actor round 1.

Link between budgets, infrastructure and quality of care

Infrastructure was said to be affected by limited budgets but actors also pointed out how infrastructure in turn affected quality of care and infringed on patient privacy as follows;

“Yes, there are some challenges in this clinic. The problem we have is spacing, the consultation rooms are few in such a way that you will find there are two nurses consulting in one room because the space is just limited. We do not have a separate dressing room or immunisation room, so we are using one room for family planning and immunisation because of space constraints.” – facility actor round 1.

“Infrastructure: that is the major lack and it impedes on the staff work and daily activities as well. The district is not building a new structure as there is no budget for it.” – subdistrict actor round 1.

“We don't have space-the problem is infrastructure. We don't have places to work from. There are not enough consultation rooms. Even if I get additional staff one particular day, there is nowhere I can put them since the fourth consulting room is the one that is used by the doctor and other days an optometrist.” - facility actor round 1.

A new initiative, having doctors come into the clinics had been initiated successfully as part of NHI policies, but infrastructural issues had not been taken into account affecting quality of care like privacy in counselling as revealed below;

“...even the room for the Doctor, there's no space, he is using the room for the counsellor. The counsellor will go out and squash somewhere.” - facility actor round 1

Delays in commissioning of NHI buildings

Some facilities got new NHI buildings (new clinic models funded through conditional grant) during round one and two. Some of the buildings however, were still locked up despite completion. It was not clear who would and when the buildings would be handed over to the clinic OM for use. District actors acknowledged the issue but seemed not to know who had the keys.

“Yes, we were at one clinic [name withheld for anonymity], they have a new building, but it has been locked, under lock and key.” -district actor round 2.

Facility actors on the other hand thought the district was responsible and kept calling to no avail as revealed below:

“What I know is that there are rooms that side they need to be opened so that we can function... because patients are complaining, those who are collecting ARVs, they're complaining anyone, anybody who comes here will know that they are HIV positive. because all those people who go down there are collecting HIV tablets. So, that building is completed, we don't know why we're waiting for so long for it to be opened. We want everyone to get seen under one roof, Hypertension, ARV patients, so that no one can say that one is here for ARVs and the other one for that. That's NHI, I don't know why we are waiting, because everything is there-fully equipped. The operational manger (OM) used to call the District Office, but they keep on saying they are coming, they are coming. Nothing, all came to no avail.” -facility actor round 2.

Link between delays in commissioning buildings and quality of care

Elsewhere, the general practitioner (GP) was working from a very small dark room despite a ready, but similarly locked up new NHI building, raising fears of probably putting patients at risk as revealed below;

“Someone (the GP) now comes out here, he is in that small room, it's like a toilet room. He's working there, small room, without a light. We have sent several requests, that we are short of light bulbs to no avail. He's working in the darkness, in that small room, squashed. It's very difficult”. I don't know actually why they don't open the new building., I think it's Department of Health. How then can we put this Ideal Clinic idea together under conditions such as these.” -facility actor round 2

Lack of frontline staff involvement and shortcomings with some new NHI buildings

Some of the new NHI buildings had permanent shortcomings facility actors felt would have been prevented had they been involved as revealed below;

“Although you know, there's one thing that I would like to see. I wish with this new building, that they built for us... I wish they could involve nurses in future when they build. I want to say something about this particular building, the door is high up from the veranda, I've had two patients falling, fortunately there were students around otherwise they would have landed with her faces bruised on the floor.” - actor round 1

The actors at subdistrict echoed similar sentiments on how infrastructural challenges were affecting implementation of policies such as National Core standards as follows;

“Infrastructure. That is a very real challenge because in our NHI standards manual for infection control purposes and for us to be compliant, our patients are supposed to be at least 1.5 metres, apart, between beds. It is currently 0.5m, it is a half a meter. So, if we were to implement that standard, we are

going to cut our patient bed state in half and we cannot afford that, because we always have full capacity. Our bed occupancy is like 100% which is also exceeding the norm because it should be 75% in case there is an emergency.”

- subdistrict actor round 2

Shortages of beds at referral institutions

At hospital level, infrastructure challenges manifested in the form of bed shortages at regional and tertiary hospitals as revealed by many actors through-out phases below;

“We, as a district hospital, deal with psychiatric patients but we are not supposed to keep them for more than 72 hours. It’s observation only, for us. Then we refer them to the nearest hospital. Then we find ourselves having difficulties because we don’t have a seclusion room as we don’t have a ward for psyche patients. We mix psyche patients with medical patients – if it’s a female – the female medical ward, if it’s a male – the male ward, and then we find these patients now fighting the sick patients. The psychiatric patient ends up being here for more than three days. If we phone hospital X, [name withheld for confidentiality purposes], it will be the same story- no bed available, making the patient stay here for example more than five days in this hospital – so that’s a problem.” -subdistrict actor contextual mapping.

“That is still the same, you see. So many times, we are forced to keep the patient here because the regional hospital says no, we don’t have any bed, keep the patient with you. They say when a bed is available, we will come back to you. We are keeping the patient for one day, two days, sometimes then the patients end up not getting transferred. Sometimes patients die here, other times patients complicate. And as a district hospital, we cannot say to the

PHC don't bring the patient to us, you see. The tertiary then says to us keep the patient with you, okay. Or they say that they will give us advice, on how to manage patient you see. But then again, we don't have the necessary equipment you see. Sometimes the patient needs ventilation ... but now we don't have the ventilator machine here.” -subdistrict actor round 2

Equipment challenges

Equipment challenges were expressed by all facility actors during both rounds while provincial and district level actors perceived the equipment situation favourably as revealed below;

“At least I can report now, that all of our pilot facilities have their basic essential medical equipment. At least in the pilot sites. We invested a lot in the last financial year on that part. At least with regards to essential medical equipment, I can say we are fine.” -provincial actor round 1

“Yes, equipment they all have... some provinces (elsewhere in South Africa) have run out of ARV's but we have not... so we are well-resourced in terms of drugs and equipment.” - district actor round 1

“For instance, when they come here, right now, we are supposed to have all the basic equipment in each and every room, for each sister. Unfortunately, they said they are still going to do that. So that when the patient comes to my room, I will have to do everything for her, and then she goes home. Instead of going to that room, to that room and to that room. She will come to me, I have got everything, I have got BP machine, CTG [cardiotocography monitors] everything, I will just attend to all her needs, write in her file, take history, examine her and give her the medication and return date. At the moment we don't have that, each room does not have all the basic equipment. I have got the BP machine, but other sisters, they haven't got ... CTG is there, but it is

shared by all of us. So, we haven't got enough equipment for each and every professional nurse, so that when the patient comes to you, you can attend to all her needs and then she goes home.” -subdistrict actor round 1

Equipment shortage and staff motivation

Some actors pointed at how equipment shortages were in turn affecting staff motivation.

“It is very hard to work like this. It seems like we are complaining, you know, you cannot work when you have these challenges you cannot move forward. It is very difficult because when they come (PHC Supervisors) they see that the equipment is not there (national core standards assessment on availability of equipment etc.) and then it is as if we are not doing our work”. Well, it demotivates the staff, they are demotivated.”-facility actor round 1

“So instead if I had the equipment in my room, I could do everything the patient needs, but we do not have that amount of BP machines and glucometers. So, procurement of items takes very long. Yes, we do write a requisition form and then nothing comes.” -facility actor round 2

Equipment shortage and waiting times

Some actors revealed how the shortage of equipment was also affecting waiting times and patient staff attitudes;

“Yes, I have got it (proof of requisitions) in my file-yes. So, we are asking why is it always the patients' rights. What about the Nurses' rights and we are told to meet this target, meet that target, disregarding the fact that we do not have any BP machines? We have only got two in the clinic and there are five (5) Sisters. There is one glucometer machine. There is one HB machine. Ear, nose and throat (ENT) sets we only have 1, but it is not working properly. I have ordered all of that to no avail. If we do not have equipment how do you work? You are running around. Patients say oh the staff only knows how to run

around, but we are running around looking for stuff [equipment in other rooms] for the patients.”- facility actor round 2

“We do not have sufficient equipment in all the rooms, so what happens is that the patient has to go to one room for BP measurement and to another for haemoglobin (HB) and all that -you know what I am saying? Then come to another room to get assessed. It increases the waiting time.”-facility actor round 2

Supply chain challenges

Supply chain challenges were expressed at all levels provincial through to facility level during all rounds. The complexity of the matter was also highlighted;

“Let me say, I’m not saying our supply chain systems are corrupt but out of the lessons I’ve learnt in the past months, I feel there’s a need to review our supply chain processes and procurement processes. One of the questions I’m asking, why should I every time advertise to procure equipment for theatre for a hospital? I know very well that a hospital needs forceps. A hospital needs BP machines. Hospital needs all these so, why am I not engaging on a long-term three-year contract with suppliers for that. You’ll then understand that there’s certain interest in there. So, those are the internal forces you have to contend with. I mean, I’m making an example of the procurement processes because everybody is benefiting. ... Can we change that? Here I have a responsibility to pilot this NHI for the first five years. Do I have enough time to also meddle in there...? I would say no, the system is too big, too big to change the whole system, the whole string of policies, and other core issues.”

-provincial actor round 1

“The challenges lie with maintenance; we find that there is a problem and we report now and then. The toilets are leaking and when you phone or you send a job requisition, it takes long. For example, that waiting room, the door broke, you know. Even the pipes, they say they are waiting for managers, we are still waiting for new taps, meanwhile they are leaking. Even our staff toilet it is leaking.” -facility actor round 1

“We've got a problem when it comes to ordering. It takes time, it takes ages to get the supplies we have ordered.” -facility actor round 1

“With obvious exceptions, but they don't move fast enough. They are not efficient. Anyway, I shouldn't be saying this. Well it is frustrating, but I think I've learnt working in the department of health, you have frustrations and you have to sort of roll with the punches. If you are going to get hot under the collar about every issue, you will end up with a heart attack and that will help nobody, so some of the GP's came to me and said , oh how can you not have carbamazepine at the clinic, but what can I do about it? I complain to the pharmacists about it. She complains to head office. We just have to be a bit cool about it, because having a heart attack about it, is not going to help.”

-district actor round 2

Supply chain challenges and policy violations including infection control

Some actors expressed how they violated infection control principles due to material shortages as revealed below;

“For now, we don't have equipment. We don't even have delivery packs, if a delivery came here, we take everything we can lay our hands on, even unsterile stuff. Even though we do order sterile things, we often get no response, so we use expired packs, we put one for emergency, in case a

delivery comes and we use that expired one, you know.” -facility actor round

2

“Then we then said; ‘Let`s go back to the polices, now. Let`s check all the policies under transport.’ We phoned head office. They told us of the repatriation policy. It allows us to go and fetch the patient that has demised, but the challenge – we don’t have a dedicated, properly designed van, for fetching those patients. We use the normal one. It’s like we are mixing things up, because I’m thinking of the waste now, also which is a challenge. We don’t have a dedicated waste bukkie for the waste - I’m mixing. The waste is collected by us, from our satellite clinics on certain days, stipulated dates. As I said, there are six, there are going to be seven drivers, so we take our own guys, our own drivers – they go collect waste in the clinics with our ordinary vans. Whereas, according to the infection control standards, it is not accepted. The infection control practitioner always fights with us because that van will be used again, without any proper disinfection for other purposes you know- we have motivated for proper ones-no response till now.”

-subdistrict actor contextual mapping

Supply chain challenges as complex to tackle

Supply chain, maintenance and shortage of medication challenges worsened during round two and staff showed signs of resignation. Some actors even viewed failing national core standards with a glimmer of hope, as may be the only way the National Department of Health could catch their attention and come to their rescue as revealed below;

“But those are bigger problems, for us supply chain will bring us down but that is why we are saying with all the audit processes, (National core standard assessments) sometimes failing is not a bad thing, because it actually brings

attention to the areas and the gaps that we are having. So, we can say we are constantly failing on these. You national, you are getting our reports. You are getting our QI plan. You are seeing the things that we are doing and it is not working, so now it is in your hands. What are you doing about it?” -subdistrict actor round 2

“It is infrastructure and maintenance. It is massively frustrating. We have taken clinics over from the municipality two or three years ago and they are still not painted and are dilapidated. The department of health say oh no they are actually owned by the Municipality, it’s a municipal building, but we are all one government. I am ashamed to take people there, yet we are seemingly able to do nothing.” -district actor round 2

“That will remain a challenge I think forever until we retire. The processes, the SCM processes, they are actually an impediment to NHI.” -district actor round 2

“...maintenance is very poor here...when you want something to be restored or to be repaired, maintenance takes ages. I don’t have a suggestion box for four years, when we started the NHI. Brooms and mops broke, and we are expected to render services in a clean environment. maintenance and supplies are real issues.” -facility actor round 2

Vicious cycle of infrastructure, space, supply chain, drug stockouts, human resources and quality of care

Infrastructure was also associated with storage space, supply chain and drug stock outs. When facilities place an order for drugs or sundries, they do not always receive what they ask for and at the same time they cannot place too big orders in want of storage place.

In one facility they sent the clinic clerk to follow up supplies that were ordered a long time ago on the day of interview. Duties of the clerk were transferred to security guards raising some quality of care issues. One facility had suspended child immunizations for longer than a week including day of visit, due to supply chain challenges as revealed below;

“And at the moment there are no plugs. The plugs are not working so we had to pack the cooler box, a box with immunisations. Put the ice bricks in it and send it back to community health centre (CHC) (name withheld for anonymity reasons) and so we cannot dispense any immunisations in this clinic, because we do not have any plug points that are working for our vaccine fridge.”

-facility actor round 2

Buck-passing

Buck-passing with regards to supply chain challenges was revealed at all levels from provincial to facility levels. Other facilities that fell previously under the municipality, felt caught in between the municipality and the department of health with no-one taking responsibility for infrastructural upgrades and maintenance as revealed here;

So, there has been a complaint about the clinic, the infrastructure for a long time and no-one is addressing it. They keep on shifting responsibility to the Municipality and Municipality to DOH. If there is a storm, our roof leaks and we have to clean up and still see patients in the dirty environment. One of the ceilings collapsed during a storm in there in the toilets. The ceiling is ripped. You can go and see for yourself. It is worse than a rural clinic. The conditions we are working under- there is no equipment. Still the same as it was last time you were here. No-one has done anything. The toilets are disgusting still broken down-just terrible working conditions.” - facility actor round 2

The above sentiments concur with the expressions below. District and subdistrict offices

seem not clear on their supply chain roles towards facilities. One participant said the following;

“Because I’m not doing these- things supply chain management – I’m just ensuring and facilitating. With the maintenance part of infrastructure, we’ve got the Artisan Superintendent and the maintenance component. The artisan superintendent liaises with the district engineer and the provincial one. But it is said, we are supporting facilities and yet we end up not supporting them. The district office says they are the ones who are in charge of the clinics. The whole work lies with us at the end of the day with no resources ...so are we supporting?” -subdistrict actor contextual mapping

The province confirmed the existence of buck-passing with regards to supply chain and maintenance of facilities.

“Buck passing between the provincial office and the district offices first and foremost when you get into the district offices. They tell you about supply chain, problems at head office that `s what they always complain about.”

-provincial actor round 1.

Supply chain challenges affecting staff morale

Other actors explained how these supply chain challenges are in turn impacting on staff morale as revealed below;

“Such supply chain challenges happen a lot and maybe you will tell me, no this is not really care related but it definitely impacts on the morale of the staff, on how we perform. If there is no light bulb here I can’t, maybe, write my report, and yet that kind of work (reports) goes into the care. If we don’t have paracetamol, such things, sitting and waiting for things to happen, there

is no Panadol at the moment, you see, but we do not see such shortages that in private sector you see.” -subdistrict actor round 2

Supply chain challenges affecting attitude towards national core standard assessment

Actors highlighted how contradictory and demotivating national core standards were as they were assessed on factors that were beyond their control and jurisdiction. Below is what was said;

“We fail on the national core standards because of that. When they do an audit they say, Where’s your janitor’s trolley? Okay, you don’t have it, you have failed. Where is your pedal bin? Sorry, you’ve failed.” So, when we score these low figures it is not always because of our performance. I am not saying we are perfect or we are performing at a very high level; it is going to take a lot of time, a lot of manpower to perform at that level, that NHI wants us to perform at. But I’m saying the things that can assist us to reach that level; those are the things that we need to be put in place. It makes you feel inadequate. You know this is what I’m supposed to be having in my clinic, you order and do not get it. When they come to audit you are viewed as not performing at the level because of lack of equipment, or supplies or whatever the case may be.” -facility actor round 1

“But still with the issue of equipment, whatever we do request with the NSI’s (Non-Stock Item) it is very rare that we get the equipment. The basic things like if you can ask, we don’t have even the suggestion box. The suggestion box that we have is just a box, not the prescribed steel one you know. When the national people come (auditors), they want to see the steel one, we don’t have that one- such basic things despite ordering. It is damn irritating I am telling you.” -facility actor round 1

“They will tick, tick, you haven't got this, and that... Yes, you are then portrayed as a bad manager.”-facility actor round 1

“Not yet, we don't even have a defibrillator but that is a requirement of the current national core standards. We do not have the basic equipment. They tick us as zero.” -facility actor round 2

National Vocational training of artisans, vacant artisan posts and maintenance issues originating outside the health system

Actors at sub-district level, leadership responsible for supporting facilities, were aware of the supply chain challenges and pointed at the root causes of supply chain and maintenance woes as follows;

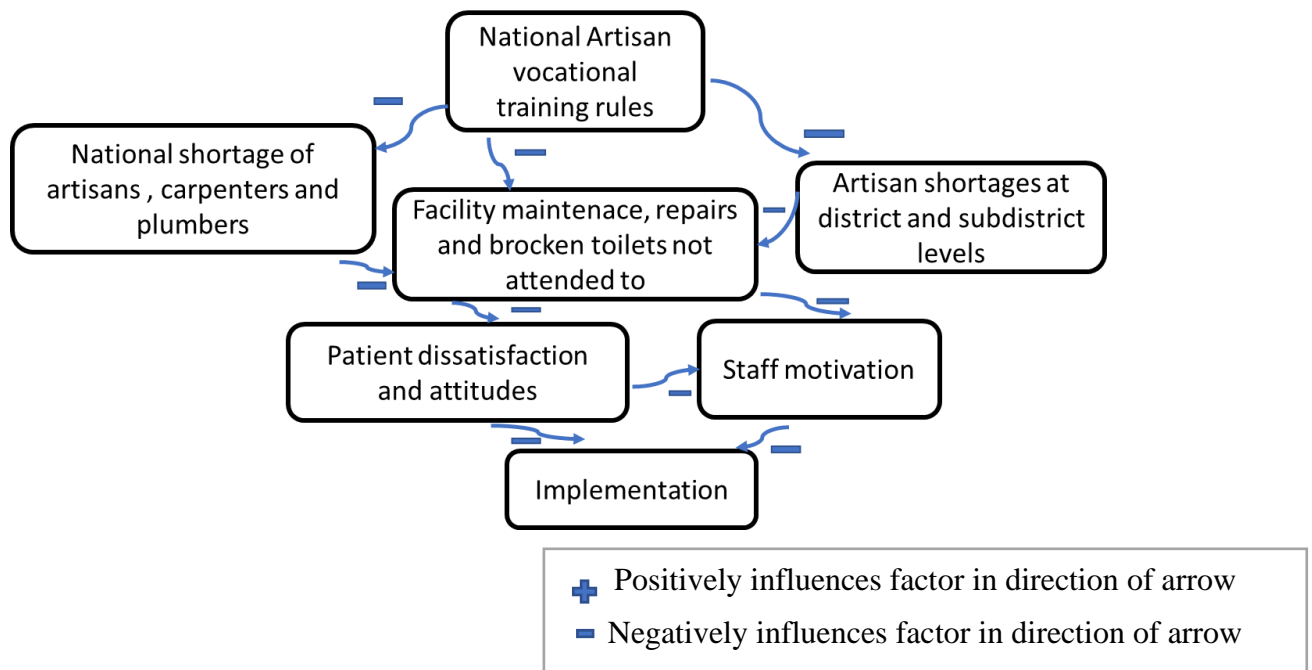
“But I must tell you that artisans are very hard to recruit. Electricians, plumbers, painters. They are very hard to recruit. The country needs to produce more. No, they are not producing them fast enough. Remember there used to be a process in the country where a youngster that does not want to go to university can...become an artisan? And that was stopped. Now they are trying to start it up again. So that is very important. We need qualified electricians' smiths etc. And you cannot find these people. They are very hard to recruit and then to retain.” -subdistrict actor round 2

One provincial actor also confirmed the phenomenon as revealed below;

“There is a lack of expertise to take up jobs e.g. money for shelving and air-cons in clinics is available but there is no carpenter in town to do the job.” -provincial actor round 2

See **Figure 8** below for some of the relationships and connections alluded to by participants.

Figure 8: Extraneous factors bringing about a policy-practice gap



Link between Resource challenges, Patient expectations and Patient staff attitudes

The announcement of NHI brought hope to many South Africans who have associated NHI with private care standards now to be provided for by public institutions e.g. cleanliness and reduced waiting times. There is currently a mismatch of high patient expectations created by the marketing of NHI in the media, and the conditions and resources on the ground that have not been fully upgraded to meet the advertised standards. Patients are then disillusioned when they attend a clinic or hospital, only to find a facility dirty or spend 3 to 4 hours in a queue due to staff shortages hence patient staff tensions. Some senior actors on the ground, at sub district level confirmed that nurses are being squeezed by supervisors from above and patients below as revealed here;

Link between staff shortages and patient attitudes

“One patient takes one nurse at least one hour. Right? And now you expect her to see 40. She has only got 8 hours in a day so how is she going to do justice to her task?” -subdistrict actor round 2

“It's the waiting period. Patients end up waiting for a long time and they end up complaining and we understand. They can see us busy, although we explain to them but it doesn't help. We can always say we are short today there are people on leave, some people go for workshops and then there is sick leave. It's affecting the patients, even the children will start crying because they have been in the queue for so long, and, you know, some of them are hungry. Even pregnant ladies, they need to go and eat and rest. You find them standing up because sitting for long too is uncomfortable, and they will walk around because they have been sitting too long. It's affecting the patients big time because although we have got waiting times of 3-4 hours, they end up waiting much longer due to shortage of staff.” - facility actor round 2

Link between staff burnout and patient attitudes

Some actors suggested a possible relationship between staff burn out and patient attitudes as follows;

“Maybe it's because we've also got a negative attitude, I don't know. Maybe they are feeling it from us, I don't know. But most of them, especially regarding my experience in this clinic, lodge complaints from time to time, I don't know. Some of the complaints are even lies. I don't know.... it's also hard to know, like you know patients are frustrated with different things. They can be frustrated with the queues; their own sickness their own problems, their own issues. I also think another thing; we as nurses also need to be attended to. Maybe we need some form of counselling at one stage or another. But we are really feeling burnt out. You know I can even tell you that sometimes we don't even get time to go for medical check-ups ourselves. At the moment I think it's because of the problem with burnt out syndrome. Hey,

sometimes, you can feel and see other staff members becoming very aggressive towards each other, yeah.” -facility actor round 1

Link between patient-staff attitudes and staff motivation

Most actors revealed how patients are creating a wedge between frontline actors and their supervisors by reporting what they said were untruths as follows;

“Recently, a patient came here. That patient had a problem waiting so at first, she went straight to the district hospital (name withheld for anonymity reasons), they asked her to wait in the queue, then she left. She came here, she was asked to wait in the queue and she left again. She reported us to the district and said she didn't get help at our facility but she didn't report the district hospital. I don't know, maybe she did. We got reported that we chased her. You know she came with a card from the other facility where she was asked to wait too and never did. She came here, we told her the same story that she has to join the queue but she was in a hurry. And then she went, I don't know where she went from here. In a letter she says she went to another facility now, a third one now, where she got help. She said she got help from there with no hustle, she said. We get demotivated sometimes, because sometimes most of the complaints are not true. It's not the exact reflection of what happened. You know, as I say, the ones that don't sort it out here, they just go and say something terrible that we get shocked when we get a letter or the public relations officer (PRO) phones and says someone is saying this. Someone who has been here, did not raise a complaint with us, only to find out it's that person you assisted with a smile and they pretended happy themselves. That's where you get a shock that this person was here and she didn't show any signs of unhappiness, the next thing they go and report or

maybe they'll report about the toilet or maybe they'll report about the waiting times but they were here, they got help, they didn't complain they went away as if everything was okay and that's where it just hurts eish, what can we do At least if they could complain here, we perhaps will be able to remember the person. Next thing you get a letter of complaint. That is not nice.”- facility actor round 2

Other actors revealed how patients even threaten them when they wait too long as revealed below;

“Well, for example, the community as you see, they don't understand when they have to wait for a long time. Sometimes they have to wait for the staff to come back from lunch. Well, we do have people who have attitudes, sometimes they do threaten us.” -facility actor round 2

Patients demanding care

Patients were reported to not only threaten staff but also made unrealistic demands, asking nurses to respond to these, irrespective of guidelines or protocol as follows;

“There are antibiotic protocols, where we are not allowed to give patients that are complaining of flu-like systems, antibiotics. I had this rude man that came to me. I assessed him. Checked his chest. His chest was clear. He is a smoker. He says he wants an antibiotic. I said Sir, I cannot give you antibiotics based on what you are telling me. On my clinical assessment, you do not qualify for antibiotics. I can give you something for your runny nose and something for pain, but you need bedrest. And that is the protocol. He swore at me. I called the operational manager (OM) to speak to him. The OM spoke to him. He came back to my room after chatting to OM and said to me

“I will show you and I will show this clinic”. That is a personal threat on my life. I wrote a statement, but nothing has been done. What protection do I have as a Nurse? I am being verbally abused but dare the patient complain, the Nurse is taken up. What about the Nurses? You know what I am saying?”
-facility actor round 2

Some actors suspected that the rise in complaints were being driven by an opportunistic attitude from patients as follows;

“There might be some other indicators like the caesarean section rate which is going up. So there also have been some litigation cases related to maternity which seems to be going up, also I don’t know...I don’t think that it’s really the care which is going down. I think its people becoming more demanding, more aggressive, more knowledgeable to say we can sue the hospital in this case and this case and that has made the number of litigations go up, but in terms of care itself, I think there is some improvement. No, I don’t think litigations are related to poor care, I don’t think so because the number of adverse events has to increase to match the number of the litigations going up, what I think is that patients have become more aware of what they can do if they are not satisfied with the care they are being provided.”-subdistrict actor round 2

Link between unresolved challenges, buck-passing and high staff turnover

Some actors even expressed resentment at their Operational managers for the unresolved challenges despite these clearly being beyond the managers control, further creating local staff tensions as follows;

“There is a lot of personal issues going on with the manager and the staff.

They...well I can speak freely here?... They feel that he is not a good manager in terms of everything because they feel he is not working as a team member. They also feel that he does not show initiative. He does not have the skills that are needed to be a manager. So, it is a big issue in the clinic. I mentioned the cleanliness of the clinic. That needs to improve because I am busy with infection control and I am not happy with the standards. I mentioned the cleaner, the environment, the infrastructure. So, there has been a complaint about the clinic, the infrastructure for a long time and no-one is addressing it. They keep on shifting it to the municipality to DOH and DOH to municipality.” -facility actor round 2

“The way things are going; staff are just wanting to leave and you wonder why they resign and leave DOH. Go on an interview...they do not do exit interviews at DOH. Ask them to do exit interviews and you are going to find out the reason why the staff are unhappy. Not because of their pensions. It is because they are burnt out and they are tired and they are fed up because things have not changed in the last 10 years, problems are never solved.”

-facility actor road round 2

Link between employee performance, management and development system (EPMDS) and motivation

The formal employee performance management development system that was introduced by DOH to instil motivation and reward performance was reported as a waste of time by many. provincial, district, subdistrict and facility views from contextual to round two agree on the matter as revealed below;

“With the performance management systems, we are using the performance management system basically for giving you one per cent increase or

whatever. The managers reward- not the primary purpose of improving the systems.” -provincial actor round 1

“That thing (EPMDS) must just be stopped. Because, you can see that I’m supposed to give a one, can you really just give that person a one? There are no 4’s and 5’s anymore. So just give 3 as an average. Useless thing, just wasting our money and time, must just give that one percent to everybody.”

-facility actor round 1

“Yes, it, it’s a useful exercise if it’s done correctly, but with our department even if you can praise somebody and you give her fours or fives, you are certain that she is doing well, there is no reward for that. So, at times, you just feel tired to do that, you just put everybody as average because it’s not going to be considered. Instead, it’s more work for you because you need to motivate for this, bring pictures, write lots and lots of papers, stating why you are saying she, she has gone an extra mile. So, it’s not a fruitful exercise.”

-facility actor round 1

“You know. At the end of the quarter it is a bit of a dicey issue with staff because they believe that initiative is not being recognised because what they do is, they score you on how you achieve your key result areas (KRAs) and if you achieve a score of 4 or 5 you are supposed to get like an incentive bonus- performance bonus and the department says there is no money. So, there is no money for that so whether you like it or not you will get a 3. Everybody gets 3. From me to the most junior clerk. We all get 3s.” -subdistrict actor round 2

“No, performance is not measured. It’s a waste of time with these EPMDS. Waste of time, waste of money, waste of everything. No, it doesn’t measure

anything. Because even if I'm a person who works harder than others, but the marks are the same, for everyone. No, it's a waste.” -facility actor round 2

Overall motivation

During round two, most actors revealed how their overall motivation was being affected by the multiple unresolved challenges (staff shortage, infrastructure, equipment, supply chain, lack of support, patient attitudes etc) as revealed below;

“None of us want to wake up in the morning and come to work. It is just that we are forced to come to work because we know we have to be here. We love...I am passionate about my job, but I cannot be passionate all the time when I am faced with these issues. I drag my feet to work. Because I have to be here.” -facility actor round 2

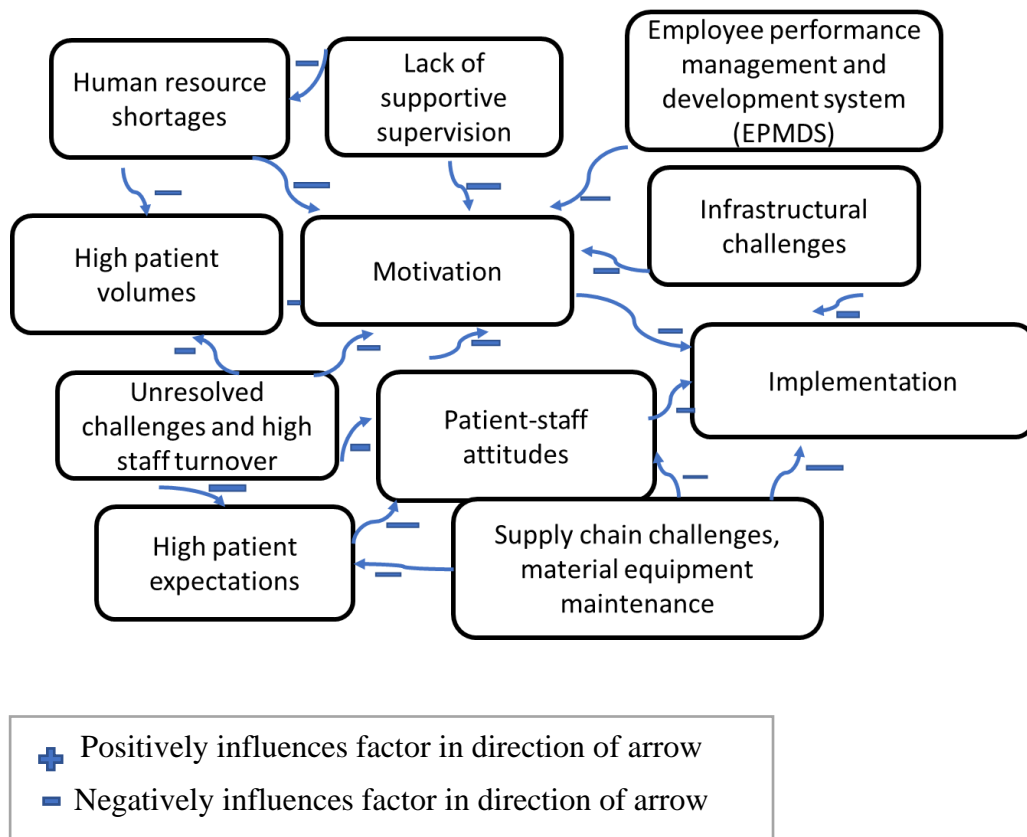
Managers at subdistrict and facility levels acknowledged that these multiple unresolved challenges actors face daily and felt limited in what they could do to keep staff motivated as revealed below;

“Because you know the staff get so bogged down with the challenges that we’re facing...And so and then you know we just try to pep them up with little open days and nurses’ day functions and sports days and things like that, but then also those things you know, it is you taking them out of the ward to do that. We are taking them out of the wards so while they are having a juice and a sandwich, there is another person that is getting stressed because they see double amounts of patients. You know and it is demoralising because if you compare the cleanliness from last year this time, to this year you can see the difference. Now already it will tell you in our next audit we are going to fail that and we are going to come down in that area, so it brings down the score for the whole facility and then it demoralises the staff because we try so hard

and we still fail for reasons beyond us. You know, it is totally, totally beyond our control.” -subdistrict actor round 2

See **Figure 9** below for some of the relationships and connections alluded to by participants.

Figure 9: Summary diagram depicting factors affecting motivation, leading to negative policy implementation



The PHC supervisor is supposed to be the bridge between facility and district, the first one to turn to when facilities have challenges affecting service provision or policy implementation. The actors revealed that these interactions are erratic and when the visit takes place, PHC supervisors are unable to assist facilities solve their problems. The district was also aware of the PHC supervision challenges citing among others human resource shortages as follows;

“These PHC supervisors rush from clinic to clinic, hence the application of the PHC supervision policy is not adhered to, because they have more than

five units to supervise. They supervise a lot of clinics.” -district actor round

1

Staff shortages at district level and supervision

Supervisors at district level themselves expressed how stretched they were with too many facilities, calling for attention as follows;

“.... unfortunately, it is just difficult for us to go back now and see if whatever we told them to do is being implemented ... Yes, to such an extent that whenever you meet some of them (facility staff), they keep on saying “you promised, when are you coming back?” You know now, it is as if we left them like that ... Yes, and they are looking up to us to be their saviours. Yes, they think if these people (PHC supervisors) come, our things will be sorted out. They wish we could visit them every month. But we can't... unfortunately we cannot cover all of them... because we cannot be in all the clinics.” - district actor round 1

Lack of support from above and non-responsive leadership

PHC supervision and support was revealed as demotivating at subdistrict and facility levels. Policing supervision was frequently cited by actors who were incensed by the fact that when they call for help, there is hardly a response-but when the supervisors hear or find something wrong, they punish the staff, instead of being supportive and understanding, bearing in mind the conditions they are working under. These interactions were revealed as affecting motivation accompanied by feelings that the leadership does not care for them as revealed below;

“I report to the district manager. Do we receive support visits from them? No... We only get a visit when there's something, which is not good enough. Yes, or when we're going to have the minister coming or something or when the Member of the Executive Committee (MEC) is going to visit us. So no, it's not a support visit, as far as I'm concerned with supervision, if only they could highlight the

problem while I am here, so that by the time we get there, at least they can ask me the question, “Why didn’t you do it, because we had spoken about it?” Then that is different but if no one has ever highlighted a problem then it’s a bit of a problem to all of a sudden descend on us. It is actually demotivating, because you only get spoken to when something is wrong. She only comes when there are assessments for national core standards or they’re coming to audit or something similar. That’s the only time she comes. Yes, and I’m not just talking about my immediate bosses. It is everybody. The bosses up there.” - subdistrict actor round 1

“Well, I think you know what, sometimes other PHC supervisors just come to find out your mistakes and all that, instead of you getting supported.” -facility actor round 1

Policing supervision, patient staff attitudes and staff motivation throughout to round two

The sentiments on lack of support and policing supervision did not change through to second round of data collection. Of interest is what actors termed as victimization and lack of support when a patient lodges a complaint or a negative incident, related to challenges beyond the facilities, of which the supervisors are aware of as revealed below;

“PHC supervision, Oh, what answer do you want? Two days ago, and I still don’t know how to deal with this, I was told the last time that the province didn’t approve of my motivations, my stats were too low, but it’s not possible to work effectively like this. The programs are getting bigger, the queues are getting longer, and we’re only two or three sisters. We cannot provide quality care. The sisters need leave, they need in-service training, they go on sick leave. I mean, so when one is gone what happens to the clinic? So those are the problems. The queues are getting longer, the patients are squealing, and

then I also have problems when people in this community, find something wrong, sometimes they don't come and speak to us, because they know people in the district office. They SMS the district manager straight. Not hearing the proper story, they then come down on us.” -facility actor round 2

“I have only seen our PHC supervisor when there are problems like she feels that the staff have attitudes or whatever and with her I find that you cannot communicate with her. It is like working with Hitler”. Because it is her way or no way at all. Okay. We are all robots here. I'm being very honest. We all are burnt out because we come to work and work and work. There is no appreciation for the staff.” -facility actor round 2

Too many initiatives and too many meetings

Many participants expressed how the number of meetings has increased with new NHI initiatives. Participants expressed how much they are failing to implement policies because of time. The district has its own meetings which the staff are summoned to as they are usually not told ahead of time. The department of health on the other hand, has chosen several partners to work with in order to improve services. These too have their own data demands and meetings resulting in too many meetings, with no time for policy implementation. District, subdistrict and facility actors all alluded to this throughout.

“Besides the national ones, there are many other external actors` that are helping with the health system-strengthening programme, that are helping with the leadership programmes in the district. Believe me there are a lot. There are a lot of partners here.” -provincial actor round 1

“Lots of meetings ... and people always have expectations from you ... they always remember to come up with ... new interventions. And they are so quick to complain. If we haven't been to their meeting for instance, I got a report that

I have not been to a hospital perinatal meeting, two meetings in succession. They don't care if I was somewhere else doing other things. The fact that I did not come, where was she? You know, people think that you are only attending to them when you have other duties too.” -district actor round 1

“Yes, it is a lot of meetings, hey, I just went for a district meeting and then I had to come back and we had to have another meeting within the hospital where we had to sit and work on all those things that they gave us to work on, like partogram audits- important things. We have to work on them but it takes you away from your department and little time is left to implement all else.” -subdistrict actor round 1

Lack of planning ahead

Many implementing actors expressed how no planning ahead could be an underlying problem leading to policy-practice gaps. They expressed not only how often they were summoned to meetings which are many, duplicates, not coordinated and often leading to clashes as a major but, some actors identified inefficiencies, that not everyone who attended the meeting had the knowledge of what needed to be done as follows;

“There are useful meetings but there are meetings that are duplicates and not useful and should be avoided. There are things that should be put together. The problem is that these things come from the top whether district or national they will say from now on you will have an x committee and they don't even ask whether you can or not do it every week and within 24 hours if there is an incident- you must meet. There was another committee, clinical risk, where almost 95% of people in the meeting didn't know what a clinical risk was. We were asked to report on clinical risks, they started doing it on adverse cases which is different from risks. When speaking about risks,

because risk is not something that has happened but something that you think will happen, so all those committees we are told we should have, sometimes do not understand what the committee entails and sometimes they duplicate things that have been done already. It's because it is the same people who are nominated for those meetings and these people have other clinical duties that they need to fulfil at the same time." -subdistrict actor round 1

"Most of the times they (meetings) are unplanned. It's unplanned and that is very disturbing because I plan. When you leave home, you tell yourself, today I am going to do this and this and maybe tomorrow I need to go to the regional hospital (name withheld for anonymity) to make a follow up of this and this – all your plans are just jeopardised." -facility actor round 1

"That's what I'm saying, I don't have time to do my work, because I have to go to all these meetings." -subdistrict actor round 1

"So, I think PHC supervisors have the same pressure as us. Some of the meetings, they are summoned too and cannot deny to attend, that is why they fail to visit us." -facility actor round 2

Some actors revealed that too many meetings are affecting implementation as they are left time deprived as revealed below;

"You know when we are undergoing our mentorship programme, we were told that we are going to do at least 20 % of clinical work ... yes, but because of the hectic schedules that we are having, it makes us not to be able to go and do our clinical work." -district actor round 1

"The meetings are killing our time and then they leave us very little time to do our particular work." -subdistrict actor round 1

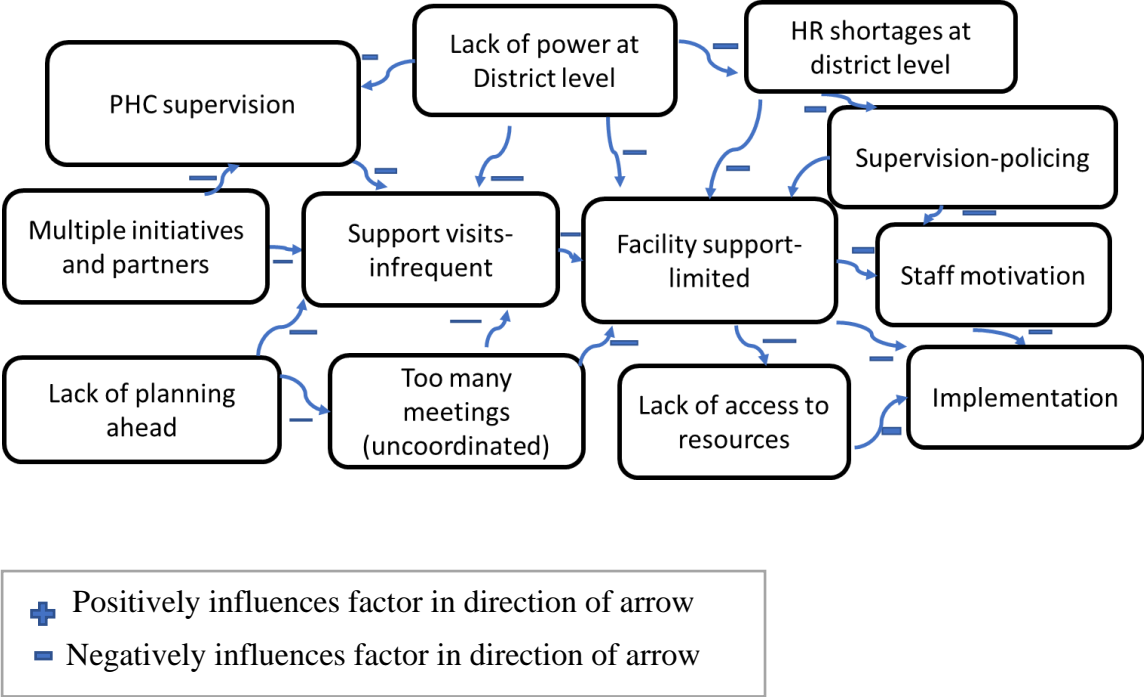
The multiple meetings at the backdrop of staff shortages were in turn reported as affecting patients staff attitudes (tertiary) as revealed below;

“Meetings are affecting our work clearly, because the patients then have long waiting times, they have to wait for longer periods. Sometimes the patients become very rude, they don’t understand they must come in and wait.”

-facility actor round 2

See **Figure 10** below for some of the relationships and connections alluded to by participants.

Figure 10: Actor Interaction factors affecting policy-practice gap



CIT tenet: power

Power is defined as the capacity to direct the behaviour of others or control over people or activities (Sinclair J.M, 1998). Actors at provincial level revealed different perceptions on the power the district management had. The district on the other hand said it had limited power to the extent of not even able to hire or fire staff. Facility actors concurred with this and revealed the lack of power at district and facility level as affecting policy implementation. Power was

associated with financial delegations which seem to be still concentrated at the Provincial and Head offices. Processes e.g. to employ staff were revealed as long and cumbersome so much so that patient care was inevitably affected, particularly when people retire, die, transfer or resign. PHC supervisors and the District expressed helplessness when facilities make requests e.g. for more staff as they then in turn have to cascade the problem to Province, only for the request to be accepted albeit with time lag or rejected.

Decision making space

Below are the different perceptions of power a district management team has, by provincial, district, sub-district and facility actors;

“They the district have enough decision-making space. Actually, our district (name withheld for anonymity reasons) is fortunate that it has got a fully decentralised but well-managed system. But of course, you’ll have the limits in terms of finance, the budgets are to be regulated by the treasury thresholds that you can only procure up to this far. This is the threshold but all the managers below the district manager are his or her responsibility to employ, fire and hire as she deems fit. The district manager, is responsible for hiring all the managers that work with her, all the deputy managers at the district office. They all have the responsibility to take decisions in there based on the allocated budget and all the CEO’s of these hospitals, report there, sign a performance agreement with him or her. They are reviewed by her. If there are any disciplinary processes, she has a responsibility to even discipline them. You allocate the whole budget here at the district office, and the budget is allocated per hospital facility. You have the district office that will remain with its own budget, administrative budget for running the district office and then we have the budget that is going to the different facilities. The CEO is

responsible for managing her own budget. They manage expenditure, the cash flows, and even submit motivation for movement of the budget within her facility, without necessarily removing accountability from the head of department. The head of department accounts to parliament for the expenditure here at province. Hence you have the Chief Financing Officer (CFO) who is actually supervising and overseeing the equitable distribution of the funds as per needs but the district manager here is responsible for the expenditure here up to this level-district.” -provincial actor round 1

“There is a challenge, I think there is a misunderstanding of how the NHI pilot sites are funded, because there is a conditional grant. You need to know that a conditional grant has specifics, you can’t use the conditional grant money to do whatever you want, because it is specified, what it is supposed to do. At the province level, they seem to think that they should not give you (district) more money because you have been given a conditional grant. Like I said earlier on, the recruitment of PHC teams and procurement of teams, it’s not covered in the conditional grant, but there is a perception that we can’t be given money because we have a conditional grant, but the conditional grant is specific for activities that it has to cover.” -district actor contextual mapping

Some posts, though created to further NHI initiatives had no power over resources and acted in an advisory role only;

“Well, I have got no space in terms of decision making, basically I’m in that NHI role, just as a project manager who has to work with the bare resources that are here, whatever I’m given by the province. I make recommendations to

the province if there are any bottle necks to them like say, we need this here, that's all- more like an advisory role.”-provincial actor round 1

Top down directives

Most actors expressed they get directives from the top, without being involved, and that these directives are often unrealistic.

“Even in the next business plan, that is what I was saying, the outcomes are determined nationally, so you can't put what you want.” -district actor contextual mapping.

“I will make an example, we are trying to argue for the issue of PHC teams, the family teams, their conditions of service, we are losing them because their conditions of service are not conducive. We were proposing that from the conditional grant, we be allowed to have a small trailer, it's a small office trailer that we can pull along, so that when we get to a household, we are able to interview people in a comfortable environment, and we are able to capture all information there-and they said we can't do that, but we are saying it's strengthening the PHC, which is a pillar for NHI, one of the pillars for NHI, but then they say you can't, you can't buy those trailers.” -district actor contextual mapping

Some actors pointed how top down directives associated with limited financial delegations are directly affecting service delivery as follows;

“Now with the state that our SCM and head office is in right now that is my biggest stumbling block. The contracts are not being renewed on time. Our outsourced services are letting us down very badly but they have come to an end like our catering contract. It has come to an end. Why is it still here? Why

has it now gone onto an extension? despite all the negative complaints...The cleaning contract. Why is that company still in place? That is like a R400 000.00 delegation. Mine is R250 000.00 so therefore I cannot choose my own company. Head office chooses the company that is cleaning my facility and then how is it that I get given a company that has no mops, no cleaning material, no trolleys. No equipment to clean. No infrastructure themselves.”

-subdistrict actor round 2

Unrealistic targets

Most participants revealed how unrealistic the targets set by those at the top are. They then fail to comply due to their unrealistic nature and lack of insight of those who set them.

Participants revealed the following;

Our occupancy target is 60%. We hardly reach 60, we are sitting at 51-55...the average is 55%. So that causes confusion also? Why are we sitting there-because even at a provincial level we are accused for failing to reach targets, because our beds are not full? When I'm giving narrations in our quarterly report, I always say, it means our primary care clinics are working well. Why do you want patients to be sick again? Our seniors are failing to understand that.” - subdistrict actor round 1

“Who sets the targets? Oh, I don't know, don't ask me I don't know. All I know is they are always talking about the targets”. That is the goal of us being here is to make these targets.” -facility actor round 1

Other actors expressed how those seniors who set targets for them fail to provide support to meet those targets when asked as revealed below;

“Let's say if you've got a target that you are not meeting, they'll tell you that you must upgrade this program, when I'm asking for support, no support. There's no support, I can say that so how can I reach those targets.” -facility actor round 1

Others expressed how the set targets infringe on respect for patients` autonomy to seek care as follows;

“Targets...I cannot go and fetch you from your house and force you to come to the clinic. It is your decision.” -facility actor round 2

Unrealistic data demands

All participants expressed additional unrealistic data demands with multiple registers, leaving little time for patient care. Data challenges were mentioned as one of the many unrealistic demands made from the top. Most participants expressed that there were too many registers and forms to fill, that at the end of the day, they seem forced to nurse either registers or patients. One participant revealed the following;

“The antenatal care (ANC)register, you will write from here to the capital city and each and every programme comes and says but my column is not complete ... my column is not this... then you think to yourself, you just end up looking at it and thinking, do you think really and truly I am worried about your column? I am not worried about your column; I am worried about the mother and the baby and the healthy baby that is going to come out.” -facility actor round 1

“Then you have got to take time with the recording so you make sure that all requirements are met so we do not have any litigations. After that we spend little time with the patient -you know what I am saying.”-facility actor round

2

Conditional grant and budgets

Each of the eleven NHI pilot sites in South Africa received a conditional grant which was to be spent on service delivery interventions being implemented under the banner NHI piloting (National Department of Health, South Africa, 2015). Many district managers indicated they were not involved and did not know what the NHI infrastructure money was spent on (National Department of Health, South Africa, 2015).

“From the conditional grant [what is not spent], at the end of the year it goes back, which is a waste, because there are real needs, but they want us to spend it in a certain way and we haven’t been doing that. Probably that’s our own fault. There are issues that are big to dissect. Sometimes the tender processes take time to get service providers and so on.” -district actor round 2

Other actors reportedly did not get any allocation of the NHI grant in 2015 as revealed below;

“We didn’t even get money this year in this hospital [no allocation of the NHI grant]” -subdistrict actor round 2

Financial delegations

The actors also described how limited their financial delegations are;

The only challenge that we say, we always say is in relation to the financial delegations, because the financial delegations, both at an institutional and a district level, are exactly the same. So if there is a challenge, in a hospital, there isn’t a thing that we can do at a district level to assist, we all have R30 000 for things that we get quotes for and anything about above R30 000 has to go to a tender, up to R200 000 and you know that the process is long and then anything above R200 000 has to go to province and that is where the bottle neck is. I think it’s because of capacity issues that they have at head office level, to such an extent that there have been items that we wanted to procure for NHI that have been there for approval for more than two years

and they have not been able to move at a provincial level- so there is a challenge in terms of that.” -district actor contextual mapping

“You know when it comes to the budget, you can say you have influence but then it depends on what the priorities are, but we do not have influence on the budget. I must say because yes, we do submit our requirements you know- the plans, but sometimes we do not get what we have requested. Our only influence is just to submit our business plan, that is all.” -facility actor round

1

Actors at facility levels throughout expressed that they are not involved in decision making with regards to budgets allocated to their facilities. Instead PHC supervisors sit in those meetings held at district level, where decisions are made on behalf of the facilities as revealed below;

“Whereas with us, we are not involved in those meetings so we don’t know. I’ll give you an example. Last year, at the beginning of the year, well, at the end of 2012, I submitted a Business Plan, saying exactly what I needed for my clinic. I was told then that there was no money available. The financial year starts in April, so I was told that in April I’ve got to fill in all my non-stock item (NSIs) forms, to say, according to your Business Plan, this is what I have asked for. And I did all that and, up until today, I haven’t received anything from them, so my point is, If you are going to keep on telling me, I don’t have any money to buy these things for your clinic, why then am I wasting my time doing this (submitting business plans yearly)?” -facility

actor round 1

Decisions made at the top do not match facility priorities

Participants also revealed how those decisions made by people removed from the coal face lead to their own facility priorities not being addressed;

“Because at times if let's say you have motivated for equipment, here we've got a challenge of privacy, we are short of curtains, we are supposed to do pap smears, but at the end of the day, they'll give you scales, they don't know your priorities, because you are not there when decisions are made, to emphasize this is the thing that I need most for now, this is exactly how I want it. So, they'll deliver... as they delivered the four watches (clocks) for the wall, we need them but it's not a priority for this facility, we need curtains to do pap smears.” -facility actor round 1

Budget allocations not clearly communicated to facilities

The district actors acknowledged that clinic budgets are low but there seems to be a communication gap since the facility actors seem not aware of why the requests they submit are not honoured as revealed below;

“Yes, and also the budget which is being allocated to the clinic is too little to run the clinic for the whole year.” -district actor round 1

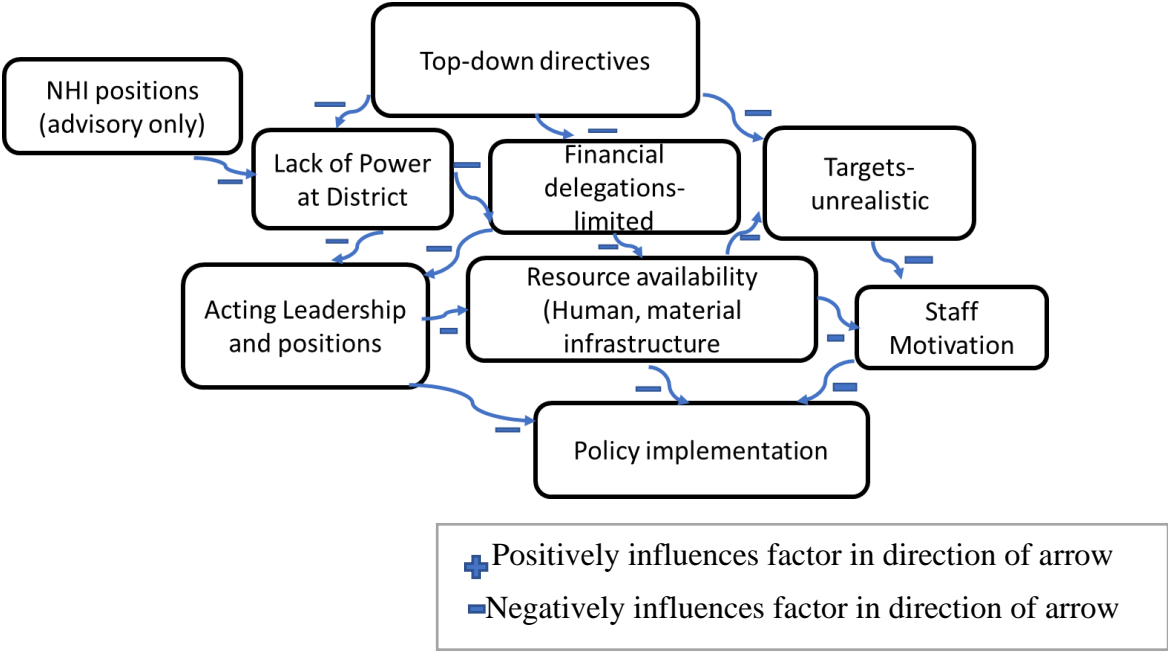
Link between budget restrictions, training and nurse performance

The budget restrictions were also revealed to affect training and consequently nurse performance as revealed below;

“Because we have to provide the person with the resources to work. You find that you recommend that maybe the staff be sent for a certain training, we are told there are no funds, you can't help that person. So, she will not perform up to an expected standard. At the same time, you can't penalize that person, because you didn't provide the relevant resources for her to perform well.” - facility actor round 1

See **Figure 11** for some of the relationships and connections alluded to by participants.

Figure 11: Power related factors associated with policy-practice gaps



Inductive themes

In addition to the CIT core constructs, actors gave insights into other factors bringing about a policy -practice gap in their everyday work.

A. Changing epidemiologic profiles-high patient volumes

Many actors revealed there were high patient volumes including a surge in non-communicable diseases (NCDs) that was not matched with human, material or infrastructural adjustments on the ground including new epidemics like violence;

“A surge of NCDs, yes. The problem is, I’m not gonna say it’s just stable there is a little increase, but it’s supposed to be more. The problem is that we don’t have enough staff to do the vital signs, for each and every visit, for everybody who comes here. So many patients remain undiagnosed.” -facility actor round

1

“There is an increased number of patients with non-communicable diseases, you see. But you see we are not able to manage them the way they have to be managed, because like the diseases of the life style, where you do lot of the

health education but the doctor has no time. Doctor has to see 50 patients but he cannot spend half an hour on one person explaining you need to do all those things. It is just to see that blood is taken and diagnosis and treatment and move onto the next person.” -subdistrict actor round 1

The unplanned for high patient volumes, are in turn affecting training plans and dictating services to be provided bringing in a policy-practice gap

“Yes, we’ve got our internal training plans, since we’ve got the PHC trainer; but unfortunately, we tend not to follow the plan as is because of the busyness of the clinic, currently that trainer is working on night duty due to shortages.” -facility actor round 1

“I have drawn up a training plan, yes, but unfortunately we don’t stick to it because of the circumstances of the clinic. Short staffed and too many patients.” -facility actor round 2

B. Transition states not planned for

Some facilities like hospitals that had once regional a status, were downgraded to district hospitals. Transitions take time. The establishment of a facility is prescribed from the top. Many actors at the subdistrict level revealed frustration as there is no contact person in case of transition challenges. They sought audience with superiors, to make them aware of the needs on the ground, that dictated keeping some services that had officially been declared as not relevant at this level, available as follows;

“The district package of service does not require an anaesthetist because anyone can do local anaesthetic for a caesar. For that kind of surgery. But because we have an influx of all of these cases, we still have anaesthetists. It is dictated by the public need. Now that needs to be brought into the minds of our principals. I have said that at meetings. They say we have an identity crisis

because we are doing the work of others but they do not realise that when you are on the ground, you know what actually transpires. Yes. Top to bottom prescriptions. They have prescribed, they say you may not do open reductions and fixations and that because it is not in the district package of service. But every second patient that comes out of a car crash needs that.” -subdistrict actor round 2

C. Ideal reporting

Left to deal with challenges on their own, participants revealed how they are forced to make decisions that work in their context. Many actors revealed how they then report according to expectations just to keep the supervisors off their back. This has led to what we termed ideal reporting -a response from frontline actors in response to policing supervision. Ideal reporting was alluded to by actors at provincial level. Facility level actors shared how that comes about below;

“It’s typical of the leadership gaps. Somewhere in the system, at whatever level... I went in to another facility like I’ve been running around recently. I went there to check my blood sugar and to get my chronic medication. They did not actually have the machine to check my blood sugar. So, that’s what you find hence it talks to all of us. Where I’m sitting in the health system, there are managers that are supposed to be monitoring that. Yet I am getting all these glossy reports that are saying everything is fine like this. When you go down there you discover something else.” -provincial actor round 1

“Quality improvement ... according to them, we should be having a quality improvement plan, but no, because the quality improvement plan needs the person to be there ... the human person to be there, who will be ensuring that these things are implemented. They ignore us. They say oh the nurses keep on

complaining. So, you end up not reporting some of the other things because they would say this nurse is the problem. So, we tell them what they want to hear.” -facility actor round 1

“There are even departments that do not exist according to head office but on the ground, we have to keep them open, because they are important departments.” -subdistrict actor round 1

D. Systems thinking challenges

Participants revealed how a lack of systems thinking is leading to discrepancies between practice and policy. This lack of systems thinking was revealed in different forms. Other actors expressed how a new boiler had burnt due to lack of maintenance. Many shared the computer example. During round one computers that were meant for clinics were found in a board room at subdistrict level. The reason being computers were brought to clinics without forecasting security issues and as a result some clinics were burgled into and the rest were returned to subdistrict for safe keeping until clinics had security guards. Actors at subdistrict and facility level shared similar concerns during both rounds;

“Yes, last month, as I'm responsible for all the computers, I received a phone call from one of our colleagues here saying there are computers that are coming, so you must organise the space for them, because this NHI thing, they need every consulting room to have a computer, even the clinics. Although they had installed the computers in the clinics, I had to go and fetch all those computers, they are sitting here now, in our boardroom. Yes, they received... maybe each clinic received about 13 to 15 computers, for each consulting room, so we had to go and fetch all those computers because we don't have security. So, we said no, it's risky to have to have the computers there while we are still organising the security. We said these computers will be stolen, so

we took a decision to go and fetch all of them and keep them here.” -subdistrict actor round 1

There is no security, so we don't have protection. We are protected by God. They even brought the computers here and then I asked them, how dare you bring the computers? Who is going to be held accountable ... I mean I am not going to write a statement and say these computers were brought here and then if they go missing, don't blame me. Because you know that nobody is here at night and if somebody comes and takes them, I will stand on one side and let the person take the computers, there is nothing I can do. Difficult is not the word. It is very frustrating.” -facility actor round 1

During the next round two nurses expressed how the security issue had been solved but that none of them had been trained to use the computers;

“So here we are wasting money. Computers are here, they are not installed, not in use, no the staff are not even computer ready (no training).” -facility actor round 2

“So, now each and every room has a computer. The computers are sitting there, because no one went for training.” -facility actor round 2

The lack of systems thinking was also revealed in other areas, for example in the companies that were contracted for services at provincial level but sent to hospitals e.g. catering and cleaning;

“You see you can have a clean facility but the facility could not be following infection control principles, because in infection control you know that you must clean with that kind of strength, that colour mop and stuff like that. So, what happens with the private companies because they do all their HR issues, training, everything they just say okay I want to clean now? This is probably

not a clinical person that owns the company so he knows how he mops his house and that's all. So that is what he expects to be done here and when they come in here, we say okay, infection control protocols demand that you must have three mops, you must use this colour here, this colour there and that makes no sense to them. You will find one will say okay my blue mop broke so never mind, I will just use the toilet mop in the kitchen, it does not matter you know. Because at home we do that, so why should it be different here you know, although there is this whole awareness of HIV, TB and things like that they do not take responsibility for taking care of their own health. so you will find them wringing the mops out. You will find them walking around without gloves, without masks. So, they have very little understanding of infection control principles. If we say to them the curtains in the ward need to be washed on a weekly basis, they ask why? At home I wash them once in three months, so why should I do it weekly here?" -subdistrict actor round 2

Other actors revealed the lack of systems thinking in how the new epidemiological profiles have not been planned for s follows;

"In those years we were, oh so well organised. We enjoyed working here. It was so beautiful to work here. You know, things were in place, but the other thing is, we didn't have so many patients. You know what, as the patient workload increased, we should have had some system improvements, but everything just stayed like that, instead of improving our systems, right? We were getting more patients, so our systems were supposed to be improved from the top to bottom, they remained like that. When the load started coming then the bottom started collapsing and it's collapsing as we speak."

-subdistrict actor round 2

E. Audit driven compliance-unintended consequences of policy

Policy implementation was revealed not to be linear and some unintended consequences of policy were reported. Of interest is the emergence of audit driven compliance with the national core standards. The assessment of the national core standards was meant to improve the standards of care and services in the facilities, by making sure they move towards accreditation. The process however, was seen by staff as punitive when their facility failed for not having equipment or infrastructure beyond their control. That spurred an audit driven compliance rush, where actors ran around borrowing equipment and material from other facilities, for the sole purpose of passing the NCS assessment. Post assessment, borrowed equipment and material is returned to respective facilities and service delivery carries on as before. Participants said the following;

“No colleagues and other OMs from other clinics are very helpful. Yes, and if only resources were within my power, then I would be ready for the audits, you know. Like I said, most of these things come from the supply chain. So, I went to theatre, I went to ICU, because I have connections, and I said, guys, I am being audited tomorrow and my emergency trolley is empty. I am being audited tomorrow and I’m thinking, I need this and that. I don’t want 100-percent, nobody gets 100-percent, but I don’t want to get 40. Personality, contacts and connections help before audits.” -facility actor round 1

Many actors also saw the national core standards assessment as a paper exercise or tick boxes as revealed below;

“National core standards are that thick document which has a lot of small boxes that must be completed (ticked).” -subdistrict actor round 1

“It is here in this file. I know that it is available, but as I have got to consult patients, I just forget about the paperwork.” - facility actor round 1

“I will be sincere; I don’t think that it helps much because it’s a paper driven process. So, you take these policies and you can tick compliant, non-compliant and so on. If they are not being implemented ...as most heads of clinical departments don’t attend those meetings...it does not help.”

-subdistrict actor round 1

National core standards assessments include verifying the availability of policy documents in the unit. Pre-assessment actors revealed how they run around to find policies, not for staff to learn and follow, but simply for the purpose of passing as follows;

“And if you don’t have one (a policy) and you’ve never heard of it, when you go to them (PHC supervisors) they don’t go out of their way to look for it or to help you look for it. Yes. There’s a lot of things now, the OM does a lot of running around, looking for things, now we are going to get assessed again we start looking and running again.” -facility actor round 2

Tired of running around every time, some actors resorted to the locking up of guidelines just to be audit ready making access if needed difficult as revealed below;

“It is very difficult to work. Even say, my training guidelines, set protocols, policies. I can’t leave them here; I have to lock them up. Who needs to use it? They have to sign for it, then I give them, then they give it back. I can’t leave them out here, they are gone and come audit time I have to run again.”

-subdistrict actor round 2

F. Disconnect between those who award contracts and those held accountable for service

As explained earlier in the section of limited financial delegations, appointment of companies that provide cleaning and catering services is done at provincial level, since these services cost much higher than the R250 000 a CEO has delegations on. The challenge is the disconnect

between the actors on the ground who get evaluated and those at the top who award these contracts but are not held accountable for facility cleanliness as revealed below;

“Yes, we are getting complaints about bathrooms, toilets, everything. The appointment of service providers cleaning and catering is done at higher level province because the budget is higher than R250 000.00 but we still have to pay from our own budget. And if the service is not good, there is nothing that we can do. It is beyond us but we are evaluated on that. It’s us who fail not those at the top who appointed the companies.” -subdistrict actor round 2

“The cleaning is out of my hands. It does make me angry but it is beyond my delegation. You expect that things should be put in place to not to frustrate you but unfortunately, they do frustrate. And then when the media queries come, I have got to answer. Yes, and that does frustrate me as a manager.”

-subdistrict actor round 2

G. Non-responsive leadership

Some actors revealed how supervisors seem oblivious to their infrastructural and supply chain challenges leading to infection control violations as nurses consult in non-conductive rooms with no hand basins as revealed below;

“Actually, they should condemn this clinic and then build a new one, because everything is wrong. There is a hole in the roof in one of the rooms in the ceiling. The Sister who is working there works without a wash basin which is a necessity. How does she wash her hands in-between patients? So, there is no infection control? And in the immunisation room there is no hand wash basin as well. How do you wash your hands in between patients, she sees ill patients? There is no way you can run into another person’s room every minute to wash your hands. So, there is no infection control. I put that in my

reports every month, but nothing has been done so how can this be an NHI pilot site?”-facility actor round 2

H. Bureaucracy

Some participants alluded to systemic issues that affect implementation as revealed below;

“What I’m trying to display here is that we still have these inhibiting policies. You see, in the public service, to get rid of this one official it takes two years in government. Just to finally get rid of dead wood. That obvious dead wood. It takes a lot of energy, a lot of documents for proof. Yes, getting the documents probably may not be the difficult part of it, but now managing these processes with all the leeways of appeals. All the leeways of appeals, all the different stages, and the energy that it consumes from a manager out of your core business? Managing one person and sacrificing the rest? The choice is clear.”
-provincial actor round 1

“So, government is over-regulated. You have all these red tapes that are affecting the whole of South Africa. Bargaining chambers for example to recruit a doctor. Any organisation will go to what you call these professional networks. You get a good CV there and invite the person for an interview, set up a panel. Here, I have to do a process three months long, just to get the adverts out. So, those are the systemic processes that are very difficult to actually work within, those are the major macro challenges. Then you also have what I would classify as micro challenges. There is the social silence, things that you cannot touch but things that are existing and persisting. In government, it’s business as usual. My job is secure. People do not get fired. They are just transferred out.” - provincial actor round 1

See **Figure 12** below for some of the relationships and connections alluded to by participants.

Figure 12: Inductive themes and some of the relationships affecting policy- practice gap and some relationships among them

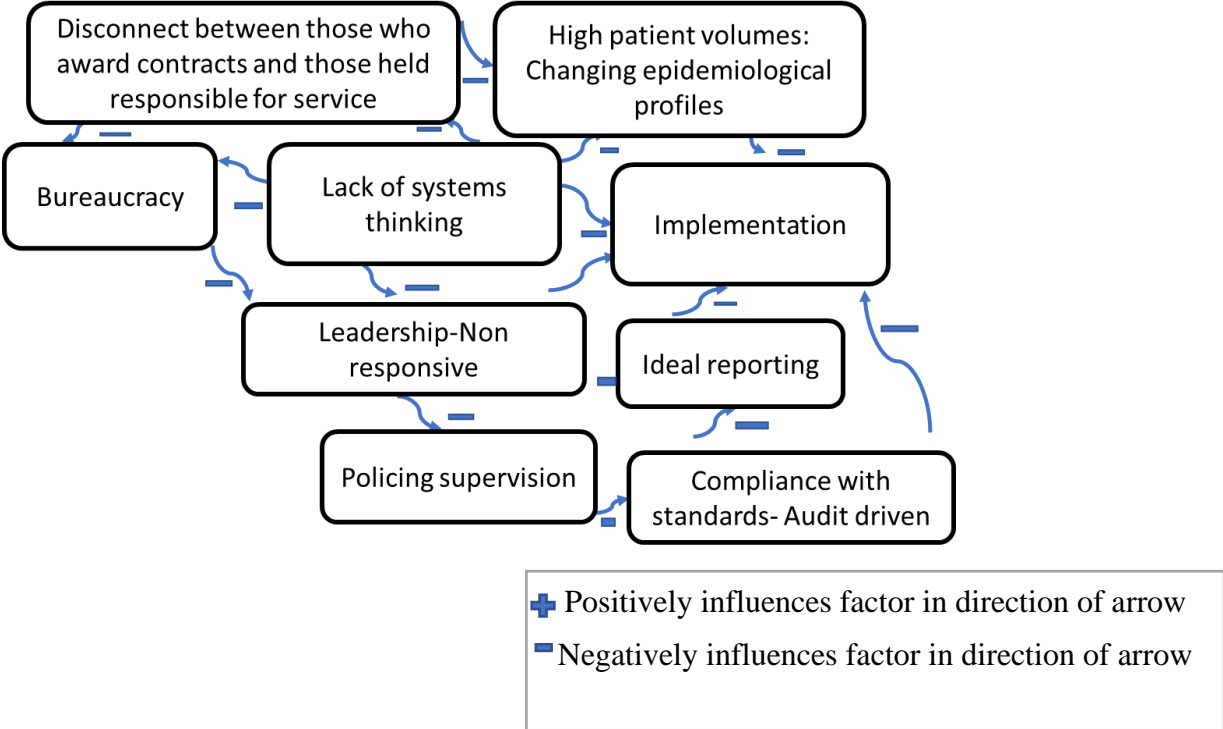
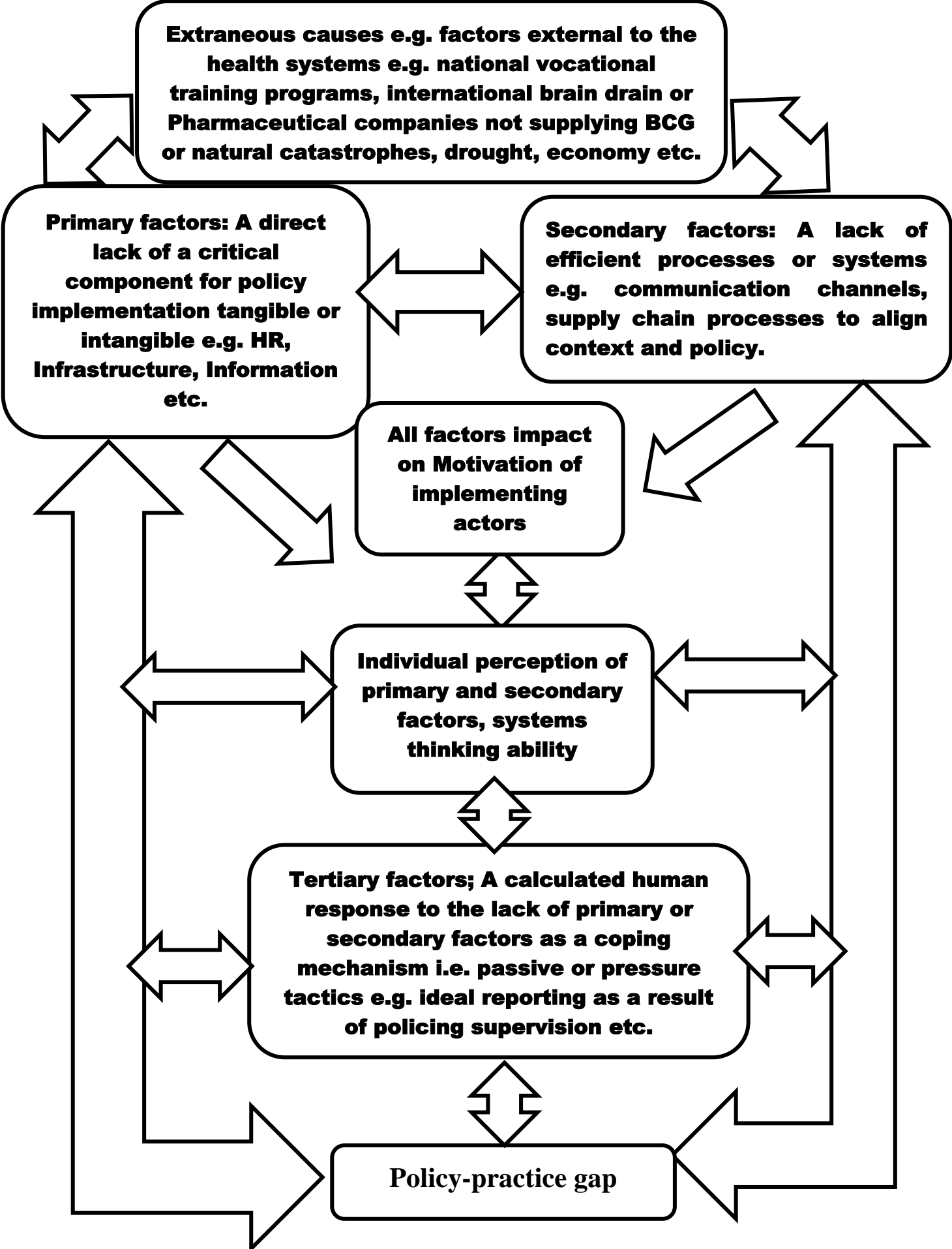


Table 5: Summary of emergent themes

Theme	Category	Unit meaning
Primary factors: A direct lack of a critical component for policy implementation tangible or intangible	Information (policy)	Top down directives
		Seniors have more access to information than juniors
		Reality on the ground unknown by supervisors and those at the top
	Motivation	High intrinsic motivation
		Demotivated by unresolved challenges staff, material and infrastructural, lack of support, supply chain challenges
	Power	District has no power to create posts, hire or fire staff
		Facilities have no power to hire or fire staff
Resources	Human resources shortages of nurses, data capturers, cleaners and security	
	Infrastructure, old dilapidated buildings	
	Limited space	
	Hospital bed shortages	
	New buildings not yet commissioned	
	Ownership and responsibility disputes between government and municipality	
Situation on the ground (context entailing all of the above)	Material resources, shortages equipment, and cleaning material	
Secondary factors	Budget and grants systems	Budget not sufficient for clinics
		Limited Financial delegations
		Disconnect between those who award contracts and those held accountable for service
Communication processes	Top down, mostly one way	
	Unrealistic targets	
	Bureaucracy	
	Non-response to motivation letters	
Supply chain processes	Long turn around and stock-outs	
Employee Performance, Motivation and Development systems	Waste of time	
	Does not reward performance	

	Interactions: Supervision systems	Policing supervision
		Erratic visits to facilities
		Lack of power and ability to help facilities solve problems
Tertiary factors	Actor perception	High patient expectations
		Patient attitudes
		Staff attitudes
		Patients demanding care
	Actor responses	Policing supervision (PHC supervisors)
		Buck-passing
		Non-responsive leadership
		Audit driven compliance with NCS
		Ideal reporting
Extraneous factors	National vocational training programmes	Shortage of plumbers and artisans
		Delayed repairs of broken toilets and taps etc.
		Delayed repairs and maintenance
Systems thinking	Lack of planning ahead and seeing the bigger picture	Transition states not planned for
		Interconnectednesses not seen
		Epidemiological transitions not planned for

Figure 13: Summary depiction of how policy-practice gaps come about (Inductive and Deductive themes)



DISCUSSION

Primary, secondary, tertiary and extraneous factors bringing about policy-practice gap

In line with Bressers (Bressers, 2009; de Boer and Bressers, 2011), our findings revealed that core constructs (deductive themes); information, motivation, power, resources and interactions affect policy implementation at all levels. Also concurring with Bressers (Bressers, 2009; de Boer and Bressers, 2011), we further found out that these constructs were interrelated and interconnected, creating new dimensions of responses (inductive themes) that further widened the policy-practice chasm. In addition to the core constructs of CIT (information, motivation, power, resources and interactions) our research revealed changing epidemiological profiles, dysfunctional processes and systems (supply chain challenges, lack of supportive supervision, bureaucracy, disconnect between those who award contracts and those held accountable for service, too many initiatives and meetings, top down directives), human factors (perception, ideal reporting, buck-passing, patient staff attitudes, audit driven compliance), national vocational training regulations and an overall lack of systems thinking as factors contributing to the policy practice gap in UHC policy implementation. See **table 2** for summary of themes. To facilitate discussion and understanding, we categorised these factors into five groups namely primary, secondary, tertiary and extraneous factors and a lack of systems thinking.

Theme 1: Primary Factors-a direct lack of a critical component for policy implementation, tangible or intangible e.g. information, resources, motivation and power

Our research revealed that primary factors; lack of information, motivation, power, human, material resource shortages, infrastructural challenges, the reality on the ground (context) are fuelling the policy-practice gap. In support of our findings Hardee et al (2012), identified resource mobilization challenges such as constrained budgets as affecting policy implementation (Hardee, 2012). These findings are also in line with Weaver et al, who identified that implementers often lack human, organizational, technological or financial resources needed to achieve program objectives (Weaver, 2010). Our findings further concur with Ranchod et al who revealed that the public health sector in South Africa faces financial

constraints, low human-resourcing ratios and ageing infrastructure (Fusheini and Eyles, 2016; Ranchod S, *et al.*, 2017). Nurses from the province took to the streets in December 2018, complaining of one nurse having to take care of sixty patients, poor working conditions and shortages of human and material resources (*'We are not slaves' - KZN nurses call for health MEC to be axed*, 2018). Human resources for Health are in short supply and these factors emerged as affecting staff motivation. If not addressed, these factors could compound the already dire human resources for health situation (Fusheini and Eyles, 2016).

Facility actors are cognisant of the reality or situation on the ground also known as context. Context is defined as anything external to a policy that may act as a barrier or facilitator to its implementation. According to Bowen and Zwi, context is defined as a setting in which policy is developed and implemented, consisting of political, social, historical and economic, epidemiological elements as well as health care system and service context (Bowen and Zwi, 2005; Peters *et al.*, 2013). For the purpose of this paper we define context as including the above-mentioned elements as well as what actors described as the reality on the ground. Implementation often varies from context to context (Moore *et al.*, 2015) and for facilities, the most pressing challenges ranged from human resource shortages, infrastructural challenges, high patient volumes and supply chain processes. Capturing context is important as an intervention may have different effects in different contexts even when implementation is uniform (Moore *et al.*, 2015). A policy might be relatively simple but its interaction with the context might be highly complex (Moore *et al.*, 2015). According to Bressers, context matters in policy implementation and it matters a lot (Bressers Hans., 2004). Facility actors would like superiors to take the individual facility contexts into account when planning and implementing policies, as the needs vary from facility to facility.

Interconnectedness and systems thinking

The links between motivation, power, resources, information, interactions and context demonstrate the need for a systems thinking approach since policy implementation is a complex process (Hongoro *et al.*, 2018). Our findings demonstrated the interconnectedness of information, motivation, power, resources and interactions among others (Peters *et al.*, 2013). Worthy noting is the onslaught on motivation, as each of the individual constructs (information, motivation, power, resources, interactions, context) not only individually but also jointly affected motivation.

Onslaught on motivation

Staff motivation was revealed to be affected by so many interconnected factors. Lack of power and resources affected motivation, lack of information affected motivation and interactions too affected motivation. This effect on motivation is critical to point out since a policy can be good, resources may be available but if the implementing actors are not motivated, implementation will be affected (Hardee, 2012). Dissatisfied clinical staff (Wolvaardt G., 2014) and burnout were revealed as recurring problems among nurses in South Africa (Harrison, 2010; Khunou and Davhana-Maselesele, 2016). Involving the actors in policy planning, ensuring resource availability, granting them power and providing supportive supervision are all effective approaches that will not only improve policy implementation but also the motivation of the implementing actors. Our findings also demonstrated interconnectedness and relationships between primary, secondary, tertiary and extraneous factors, making systems thinking, a cross cutting and universal factor essential for successful policy implementation. A fault in one part of the system e.g. lack of power inevitably affects the other parts for example resource mobilization and eventually the goal- quality health care services to all South Africans without financial impoverishment (Department of Health, 2015).

Lack of power and interconnections

Lack of power was revealed as affecting policy implementation at both district and facility levels (Oboirien *et al.*, 2018). Lack of power in the district health system (DHS) was revealed as not only affecting services but was also linked to motivation, policing supervision, resources, infrastructure and all the other factors identified. Lack of resources can be viewed as lack of leadership (Tomm-Bonde *et al.*, 2013). According to Ellokor and Gilson, it is local level managers (district, sub-district, programme and facility managers who must provide hands on leadership in strengthening the health system (Ellokor S and Gilson L, 2012) and to do that they need power. Chief executive officers (CEOs) need to receive appropriate delegations (Doherty J, 2013) for them to function effectively. According to the world bank, decentralization can reduce administrative bottlenecks in decision making, increase efficiency of government and its responsiveness to local needs, enhance accountability of public institutions, improve service delivery and allow greater representation and participation of diverse groups in decision making (Fusheini and Eyles, 2016).

No consultation-top down directives

Staff from facility up to district level, revealed that they were not consulted or involved in policy development. Such top down directives affect policy implementation (Tomm-Bonde *et al.*, 2013). Top down directives have been proven to increase resistance (Burke *et al.*, 2012; Béland and Ridde, 2016; Anderson, 2017). We did not encounter this phenomenon in our research. This could be due to the fact that UHC policies were hailed as novel, new at the time and were generally viewed by the international community (Bump, 2015), health system actors and communities in South Africa as a positive development and right thing to do (Department of Health, 2015; Béland and Ridde, 2016). In future, involving the implementing actors on the ground in policy development could go a long way in reducing policy-practice gap. The facility actors are keen to be involved in policy development. They argue that context matters, that every facility is different, hence they understand the reality on the ground better than superiors

at head office. Their involvement could lead to facility priorities being resolved faster and effectively, facilitating policy implementation. Nurses are demotivated by the way policies are being implemented (Khunou and Davhana-Maselesele, 2016). Involving implementing actors breeds a culture of innovation and makes it easier to pave the way for internal change (Anderson, 2017).

Different actor perceptions of power

Of interest were the different perceptions provincial, district, and facility actors had on power. Insufficient delegation of authority has been reported elsewhere (Harrison, 2010). The district actors complained of lacking decision making authority and financial delegations (Fusheini and Eyles, 2016) while the provincial actors believed the district had sufficient power. In line with our findings, Gustaaf et al reported that district and hospital management lack mandates to carry out functions effectively (Wolvaardt G., 2014) including inadequate budget spending (Fusheini and Eyles, 2016). Devolved decision making to teams on the ground contributes to successful implementation (Tomm-Bonde *et al.*, 2013). Addressing DHS is of utmost importance if UHC is to become a reality (Wolvaardt G., 2014; Fusheini and Eyles, 2016; Doherty, Gilson and Shung-King, 2018a). A DHS with power could also plan and allocate resources according to contextual needs, as the current conditional grants not only came late but are also attached with conditions making it difficult to deal decisively with priorities. The government still needs to invest significantly in strengthening PHC (Tangcharoensathien *et al.*, 2018a).

Theme 2: Secondary Factors: a lack of efficient processes or systems e.g., budget processes, communication channels, supply chain processes, motivation processes for resources, employee performance, management and development systems etc.

Our findings also revealed that secondary factors, referring to shortcomings in processes or systems in the form of supervision support systems (Hardee, 2012), bureaucracy, employee management and development system (EPMDS) (Hardee, 2012), lack of systems that take changing epidemiological profiles (Leader, 2011; Kettledas, 2016) into account, disconnect between those who award contracts and those held accountable for service and transition states

that are not planned for, were all contributing to policy-practice discrepancies. Policy attention is required in terms of accountability (Ranchod S, *et al.*, 2017). In support of our findings, weaknesses in support systems, logistics systems, health information systems, coordination and referral systems have been reported elsewhere as affecting policy implementation (Hunter, Killoran and NHS Health Development Agency, 2004; Burke *et al.*, 2012; Hardee, 2012). Capacity to implement is described as the target individuals, organizations and systems capacity to carry out policy objectives (Dodson EA, Brownson RC and Weiss SM, 2012). The reason for South Africa's deteriorating health outcomes lies in flaws in institutional design (Wolvaardt G., 2014). All actors agreed that supply chain management (SCM) processes are affecting implementation. At the same time, all levels revealed how difficult an issue it is to resolve. A sense of urgency is needed in this regard as unresolved challenges continue to erode on staff motivation (WHO, 2017). Bureaucracy was also pointed at. All actors alluded to bureaucracy as stalling policy implementation. They all professed lack of power to change what needed changing. These processes, supply chain and human factors (people in the system) were once again revealed as interconnected. Homogenous approaches to hospital processes and systems are needed (Ranchod S, *et al.*, 2017). Our findings concur with Weaver (Weaver, 2010) who revealed that bureaucracy contains a variety of program operators namely; Saints-bureaucrats who are doing the best that they can under difficult working conditions. Many actors fell under this category. Shirkers are described as bureaucrats who avoid doing work whenever possible. Some actors at province pointed that many managers at district level fell in that category. Subverters are bureaucrats who substitute their own objectives for those of the principal or outcomes measured. Provincial actors and subdistrict actors felt there might have been some of these in the system and associated that with the supply chain management. Shackled bureaucrats are those who have good intentions but are constrained by rules and red tape from being innovative to meet client individual needs. Many actors at district, subdistrict, and facility level expressed being in this group. Some came up with initiatives only to die, due to lack of support

from above. Rent seekers are bureaucrats who use their position for personal gain (Weaver, 2010). Actors suspected there could be some of these, due to the reluctance of some actors to deal decisively with systemic issues including supply chain. How many if at all of these actors are in the system is not clear. Weaver concludes that these program operators co-exist in a health system (Weaver, 2010).

Interactions: PHC supervision

Lack of supportive supervision was a major complaint with many saying, You have told me what, now tell me how (Tomm-Bonde *et al.*, 2013). Lack of clear policies guiding all levels of the health system related to program implementation increase policy-practice gap (Hardee, 2012). The emphasis of CIT lies on the social interactions and how they influence policy implementation processes. Communication was reported to be one-sided that is top to bottom. When the reasons and need for change are poorly communicated, actors feel frustrated and deflated ('Ditch "Change Fatigue" and Embrace Continual Evolution', 2017). When facility actors need something urgent, they are told by their superiors to write motivational letters, which according to them, are not responded to, let alone acknowledged. Hierarchy is the antithetical to dialogue (Senge, 1999). Performance is personal before it becomes organizational. Since people do not work in a vacuum, improved performance requires productive relationships with bosses (Anderson, 2017), clients and community. Complex systems require effective interactions among staff, supervisors and clients to reach goals (Lipsitz, 2012). The current employee management and development system (EPMDS) was cited by all as useless and a waste of time, calling for innovative ways of managing performance and motivating staff.

Theme 3: Tertiary factors-A calculated human response to the lack of primary, extraneous, secondary or all these factors as a coping mechanism

Our research revealed what we termed as tertiary factors. These are human factors and responses to either lack of primary, secondary, tertiary, extraneous and or all of these factors.

These human factors took different forms (different perception of issues like power, ideal reporting, Buck-passing, policing supervision, non-responsive leadership and audit driven compliance). buck-passing has been reported elsewhere (Dörrenbächer and Mastenbroek, 2019). These human responses are bringing about unintended consequences. Unintended consequences have been reported elsewhere in implementation (Burke *et al.*, 2012). Ideal reporting and audit driven compliance with standards, as a human response to lack of primary factors or secondary factor is a novel finding of this research.

Human factor, perception and bureaucracy program operators

People and the role people play in policy implementation, particularly communication, was demonstrated by the level of understanding and motivation of those actors that attended the Ministers road shows. He seemed to have communicated clearly and motivated those that attended. It's not clear if its power, charisma or both but his shows seemed to have had an impact on policy understanding. Those who attended his shows not only revealed a better understanding of NHI but a degree of optimism as well. Actors that did not attend the minister's road shows expressed little understanding of NHI and its policies. Inadequate information leads to misunderstandings and lack of direction (Anderson, 2017). In line with our findings, role ambiguity in policy implementation was reported as affecting policy implementation (Oboirien *et al.*, 2018). The role of individual perception was revealed to play a major role in policy implementation. Our findings concur with Anderson who revealed that many differing assessments to a given situation exist (Anderson, 2017). Different actors perceived things and issues differently. Perceptions of issues tended to be different at each level of the health system from provincial, district to facility level. The facility actors expressed for example a shortage of equipment, while the district and provincial actors viewed equipment as sufficient. These different actor perceptions of issues included among others power the district had, human resource situation, and understanding of NHI. Concurring with our findings, interpretation issues were documented elsewhere, where key elements of policies were left indeterminate

leading to substantial lost time and energy as implementers argue about ambiguous objectives and mandates (Bellush, 1981; Weaver, 2010). Of concern, different actors at different levels had different perceptions of the situation on the ground and how to solve them (Strehlenert, 2017). In-order to meet financial and other targets, managers and clinicians have to be encouraged to understand one another's viewpoints and experiences (WHO, 2017; Doherty, Gilson and Shung-King, 2018a).

Ideal reporting

Facility actors expressed how they adapt policy to suit the needs on the ground. This finding is in line with research elsewhere. Policies often go some tailoring or adaptations when implemented in different contexts (Moore *et al.*, 2015). Of interest is the ideal reporting which actors said they did in response to policing supervision. If they send a report to their superiors without using the expected format, the report is sent back and they are told to do it over again. They discovered that if they reported according to what is expected, they are left in peace. Weaver et al found out that actors use their discretion to make their jobs easier e.g. managing overwhelming workloads or difficult clients rather than advance policy e.g. physicians may provide a higher volume of services to benefit economically (Weaver, 2010).

Assessment driven compliance with National Core Standards (NCS)

Actors described how unresolved challenges, chronic resource shortages and policing supervision led to assessment driven compliance with NCS. This interesting phenomenon was common in phase one when facility managers went around borrowing equipment (Oboirien *et al.*, 2018), drugs and policy documents in order to pass the assessment, only to bring the equipment back post assessment. This creates a false impression of progress towards NCS when in actual fact the day to day running of facilities remains unchanged. Adversarial relations between reporting entity and the organization can drive non-compliance (Tomm-Bonde *et al.*, 2013). According to the NHI whitepaper, the piloting phase one (from 2011/2012 to 2017) was

supposed to achieve strengthening of the service delivery platform and overall improvement of quality in the public sector (Department of Health, 2015). Are we there yet?

The office of health standards compliance (OHSC) responsible for assessing national core standards conducted inspections in 1427 public hospitals and clinics over a four-year period up to 31 March 2016. Only 89 (6%) of the facilities met the pass mark of 70% (Fusheini and Eyles, 2016; Ranchod S, *et al.*, 2017). The actual figure might even be lower in light of compliance driven assessments. We acknowledge that assessments have their place in ensuring quality, but doing so at this stage seems to be generating unintended consequences, due to the multiple unresolved challenges facilities are facing. Instead of NCS audits, we recommend that the office of NCS standards carries on with higher level support visits to facilities and so rather than assess, engage with facilities and assist them in overcoming the multiple unresolved challenges they have, so as to meet standards and reach accreditation. It is also important to note that service readiness and availability do vary overtime, demanding close attention (Fusheini and Eyles, 2016). A facility that is compliant today might not be compliant tomorrow if for example a driven operational manager resigns or of equipment break and is not replaced.

Patient staff attitudes

Facility actors revealed how patient-staff attitudes are often misconstrued as rude staff illtreating patients, but that the mistrust is being fuelled by high patient expectations at the backdrop of resource shortages on the ground. This is a phenomenon worth exploring as it is affecting staff motivation. Resource provision is beyond facility actors and supervisors blame them when patients wait for too long and they also get blamed when a facility has no oxygen, issues well beyond their mandate. Facility actors termed this policing supervision. In line with our findings, blame culture in this context has been reported by others (Khunou and Davhana-Maselesele, 2016; Oboirien *et al.*, 2018). There is in each of us a propensity to blame someone or something else when things go wrong (Senge, 1999). When mistakes are viewed

as bad things and held against actors instead of being used as learning and opportunities for reflection, such organizations foster a culture of transferring responsibility of one's mistakes to others, hence never become learning organizations (Ackoff, 2006). Nurses took to the street expressing that they are being attacked by patients, relatives and communities, accusing them of being lazy, incompetent or negligent and yet it's because they are short staffed (*'We are not slaves'* - *KZN nurses call for health MEC to be axed*, 2018). Performance is personal and is affected by relationships between clients and community (Anderson, 2017). Lack of progress in establishing structures for community participation has been reported. Though hospital boards and clinic committees have been established in some facilities, it's not clear how these bodies facilitate meaningful community participation (Fusheini and Eyles, 2016).

Managing stakeholder Expectations is key in policy implementation

Management of expectations of key stakeholders in the health system, particularly patients and communities, is called for. The whole society should have a responsibility to account (Tangcharoensathien *et al.*, 2018a). These issues need to be visited and addressed if policy implementation is to succeed and the current patient-staff attitudes are to be overcome.

Theme 4: Extraneous Factors: factors beyond the health system e.g. national legislation, war, economic crunch, natural and other disasters

Extraneous factors are defined as factors of an external origin beyond the health sector. Our findings revealed how national vocational training regulations were contributing to supply chain woes, in the form of lack of artisans. These are factors beyond the ministry of health (Burke *et al.*, 2012), but are contributing to policy-practice gaps. We recommend taking issues beyond the health sector like brain drain, economic situation etc. into account when planning and implementing policies including intersectoral collaboration and health in all policies approach (WHO, 2014a) to reduce this gap.

Theme 5: Lack of Systems thinking

Systems thinking is a conceptual framework, a body of knowledge and tools that have been developed to make patterns of events clearer and help one see how to change them effectively. It's a way of seeing wholes rather than parts, seeing interrelationships rather than things (Senge, 1999). Our findings have revealed relationships and interconnectedness among primary, secondary, tertiary and extraneous factors; hence we think it deserves to be mentioned separately as a stand-alone factor contributing to the policy-practice gap. Seeing major interrelationships underlying a problem leads to new insights of what might be done (Senge, 1999). Actors pointed at the lack of systems thinking in different forms including computer procurement without security and training, lack of planning for transition states, lack of strategic planning skills and focus on short term planning. These findings are supported by research done elsewhere (Wolvaardt G., 2014). Officials and staff of central health ministries` often struggle with managing information over load and competing priorities (Hardee, 2012) making it difficult for them to see wholes (Senge, 1999). A lack of systems thinking affects primary, secondary, tertiary and extraneous factors making systems thinking a universal factor needed to be taken into account during policy planning and implementation. Factors in one group e.g. primary have their own relationships and interconnections within that category e.g. lack of information affects motivation. Furthermore, factors in the primary group e.g. motivation are also affected by secondary factors e.g. supply chain processes and vice versa. Primary or secondary factors themselves can further be affected by extraneous factors like vocational training and by tertiary factors like non-response from leaders. The interconnectedness of factors is worthy reckoning with as these add complexity in implementation, further widening the policy practice-gap.

Transition states

Policy implementation is a process and does not happen overnight. In line with systems thinking, actors revealed how transition states are not planned for. Transition shifts power and

resources, creates additional work and may bring about unwelcome shifts in organizational priorities. All of these factors may create resentment and negativity toward the transition process (Bao *et al.*, 2015). Poorly executed transitions risk reversing health achievements, negatively affecting services and outcomes for the population (Bao *et al.*, 2015). Even in instances where human, technological and other resources required for successful implementation are present, it takes time to put all needed systems in place and to make them work effectively (Weaver, 2010). Accountability is needed for successful transition (Bao *et al.*, 2015) hence we recommend transition authorities during new policy roll-out. Such an authority could serve as the body or person to contact in case there is a policy-context discrepancy and enhance policy implementation.

The bottom line in systems thinking is leverage-seeing where action and changes in structures can lead to significant enduring improvements-the principle of economy of means. The best results do not come from large scale efforts but small focused actions (Senge, 1999). Despite the existence of unknown unknowns in policy, many implementation problems recur across many programs and are quite predictable at least in their occurrence if not in their intensity (Weaver, 2010). To minimise unanticipated consequences, policy makers need to understand health care as a complex system and apply principles of complexity science (Lipsitz, 2012), one of which is systems thinking to achieve goals. Systems thinking helps deepen our understanding of complexity and the practical dynamics of policy implementation (Adams-Jack, 2016). Constantly changing guidelines were pointed at by some actors, raising the risk of change fatigue ('Ditch "Change Fatigue" and Embrace Continual Evolution', 2017). Of utmost importance is the need for dynamic leadership that can drive subordinates to embrace challenges of constant change, in a dynamic world of continual evolution, the health system is ('Ditch "Change Fatigue" and Embrace Continual Evolution', 2017).

6.7 Conclusions

Dedicated and committed political will is required over the long term for UHC to be achieved (Fusheini and Eyles, 2016). Existing experience of health policy implementation has demonstrated that new policies have generated unexpected and sometimes negative outcomes (de Paoli, Mills and Grønningsæter, 2012; Gutura and Tanga, 2016). Policies, once adopted, are not always implemented as envisioned and do not necessarily achieve intended results (Bhuyan, Jorgensen and Sharma, 2010). The South African public sector is experiencing a management crisis (Doherty J, 2013). Lack of power, financial delegations at district and facility level, coupled with lack of accountability, affect policy implementation. According to a provincial actor, there is an additional challenge.

“The main challenge is that this NHI is a new issue. We are all at a learning stage. National down to district level.” -provincial actor round 1

This challenge sums it all. Progress towards UHC have been made (Fusheini and Eyles, 2016) and initiatives like bringing doctors into the clinics (Mureithi *et al.*, 2018) and central chronic medicine dispensing have been met with success (Kettledas, 2016). The focus of this paper is on understanding how policy-practice gaps come about (Senge, 1999), hence successful policy outcomes were not dwelt upon.

A health system is a complex adaptive system making health care challenges complex and intractable (wicked problems) since they involve many actors from different levels of the organization and interconnectedness that introduce added layers of complexity. In implementation, focus is usually put on ensuring that primary factors, information, motivation, power and resources are in place. Our research revealed that paying attention to secondary, tertiary and extraneous factors individually and jointly is equally important in reducing policy-practice discrepancies in UHC policy implementation. Worthy noting are the human responses of actors in the system (tertiary factors) further widening that gap. We acknowledge that there are no easy solutions to wicked problems as every complex problem is unique (Strehlenert,

2017). We are also cognisant of the fact that policy implementation is seldom linear (Wolvaardt G., 2014; Béland and Ridde, 2016) and requires a lengthy period of implementation (Strehlenert, 2017). South Africa needs to be applauded for adopting UHC. Addressing the challenges identified in our research, utilizing a systems approach (Senge, 1999; Strehlenert, 2017) could go a long way in making UHC a reality in South Africa.

Limitations and strength

Implementation research entails the challenge of operationalizing and measuring implementation constructs because sufficiently valid measures often do not exist. Secondly, implementation research is just one component needed in a strong evaluation. Used alone, it will not establish causality or the efficacy of an innovation (Damschroder, Peikes and Petersen, 2013). Qualitative studies are context specific, findings though transferable may differ from studies done in different contexts (Brugha, 2000). Finally, our study did not cover other national policies being implemented, but focused only on those reforms aimed at achieving universal health coverage.

Very few systems are set up for the purpose of documenting and tracking policy implementation and monitoring in low and middle-income countries (LMIC). This was one of the first systems in SA to track UHC policy implementation, generating real time evidence on why policies fail. Furthermore, few studies have focussed explicitly on developing a qualitative understanding of the experiences of those at all levels of the health system province, district, subdistrict and facility, comparing and contrasting their implementation experience of the same policies (UHC). In this paper, we managed to reveal the challenges actors (policy makers and policy implementers) face during policy implementation, actions they undertake to cope with challenges and how these actions further widen the policy-practice gap.

Methodologically, theory of change facilitated actors to reflect on their expectations, roles and experiences of UHC policy implementation over a period of time, enhancing not only depth,

breath, credibility but also richness of our results. Triangulation and comparison of policy implementation experiences across the different levels of the health system from province, district, subdistrict to facility level, provides a wholistic picture of what is going on in UHC policy implementation in South Africa.

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Availability of data and material: Data and material from this study cannot be provided publicly due to our ethical obligations to protect anonymity of participants. As stipulated in the participants “informed consent form,” data access is limited to members of UNITAS research team. Data cannot be shared due to this restriction. For further information related to data, please contact the corresponding author.

6.9 Author contributions

JM, NC, MO, TB, DM were involved in research conceptualization, data collection and initial data analysis. JM, BO, NM, HB, DE were involved in further systematic data analysis. JM, NC, NM, MO, BO, TB, DE, FT, DM, HB and MT were involved in conceptualization of paper, analytic appraisal and write up. All authors approved the final manuscript.

Ethics: The study was conducted in full compliance with the principles of “Declaration of Helsinki” (as amended in Tokyo, Venice, Hongkong and South Africa and the laws and regulations of South Africa. UNITAS obtained Full Ethical approval for the study granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF BE197/13.

Gatekeepers permission was granted by the KZN Provincial Health Department; REF HRM4/2.

A support letter was also obtained from the District Manager. In addition, informed written consent was obtained from actors who took part in the study.

6.10 Competing interests

The authors completed the Unified Competing Interest form at www.icmje.org/coi_disclosure.pdf (available upon request from the corresponding author), and declare no conflicts of interest.

6.11 Key message 1

Policy implementation is not linear; hence complexities can arise. Availability of adequate information, power, motivation, resources, efficient processes and systems are key to successful policy implementation. Noteworthy however, are tertiary factors, which are human factors, perception, cognition and responses of actors in the system, to a lack of any or all of the above-mentioned key factors, that can bring about an additional layer of unintended consequences, further widening that gap.

6.12 Key message 2

South Africa needs to be applauded for adopting UHC. Addressing the challenges identified in our research, utilizing a systems approach could go a long way in making UHC a reality in South Africa.

7. Title: What we need is a health systems transformation for universal health coverage to work: perspectives from a national health insurance pilot site in South Africa.

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Under review

7.1 Abstract

Background: Globally, Universal Health Coverage (UHC) has gained traction as a major health priority in many countries. In 2011, South Africa embarked on a UHC journey, to ensure that everyone has access to quality health care services without suffering any financial impoverishment. This is in line with Sustainable Development goals (SDGs). National Health Insurance (NHI) and PHC re-engineering were two vehicles chosen to reach UHC over a fourteen-year period, 2012-2026. The first phase of health system strengthening initiatives to improve quality of health services in the public sector began in 2012. These health systems strengthening initiatives are still being carried out by the department of health in conjunction with other partners.

Methods: Qualitative data were collected during three phases 2011-2012 (Contextual mapping), 2013-2014 (Phase 1) and 2015 (Phase 2). A case study design was used. We gathered data from key informants (n=71) who ranged from provincial actors (policy makers) to district, subdistrict and Primary Health Care (PHC) facility actors (policy implementers). In-depth face to face interviews were held with participants using a theory of change interview guide, adapted for each phase. All interviews were audio-recorded and transcribed. An iterative, inductive and deductive data analysis approach guided by Contextual Interaction theory was utilized. Transcripts were coded with the aid of MAXQDA 2018.

Results: Findings revealed that policy makers at provincial level and implementing actors at district, subdistrict and facility levels view the way the current health system in South Africa is designed, as a hindrance to National Health Insurance (NHI) success and ultimately UHC. Six broad themes emerged; PHC was revealed as inefficient and ineffective, policy development and implementation as top down, public private partnerships as lacking, processes including leadership development as not suited to context, systems like supply chain as dysfunctional and a lack of systems thinking.

Conclusion: A third great transition seems to be sweeping the globe, changing how health care is financed and how health systems are organized. The actors in UHC policy implementation in South Africa have identified this need too. Health system transformation rather than strengthening they say, is needed to make UHC a reality. Universal health coverage is an opportunity but not a guarantee for progress: getting things right now can have big pay offs later, but letting things go wrong initially can be highly problematic and costly. Who is listening?

Key Messages

- Strong health systems are key to achieving universal health coverage
- A third great transition seems to be sweeping the globe, changing how health care is financed and how health systems are organized
- Health systems strengthening vs health systems transformation to achieve UHC

7.2 Background

Globally, universal health coverage (UHC) has gained traction as a major health priority in many countries (*WHO | Universal Health Coverage at the top of the global health agenda*, 2012). There is also recognition of the critical role played by social determinants of health in contributing towards improved health outcomes and a long healthy life for all (Department of Health, 2015). Good health is an essential and indispensable prerequisite for poverty reduction, sustained economic growth and socio-economic development (Department of Health, 2015). In 2011, South Africa embarked on a UHC journey, to ensure that everyone has access to quality health care services without suffering any financial impoverishment (Department of Health, 2015). This is in line with Sustainable Development goals (SDGs) (WHO, 2017). Multiple epidemics, powerful historical and social forces such as vast income inequalities, unemployment, poverty, racial and gender discrimination, migrant labour system and extreme violence, shape the current health system (Department of Health, 2015), making it two tiered, public and private, based on socio-economic status with one for the poor and the other for the

rich. This perpetuates inequalities. Poor management of public services threaten to further widen these disparities (Benatar, 2013). Over 80% of South Africans have no health insurance, leaving them with no choice but heaping the burden on the public health system. The two tiered system is unsustainable, destructive, very costly and highly hospicentric (Department of Health, 2015). Many South Africans remain severely impoverished with inferior access to health care except HIV/AIDS care (Benatar, 2013).The public health system itself faces a myriad of challenges. Among these are, the worsening quadruple burden of disease and an increasing number of patients in need of anti-retroviral therapy (ART) while simultaneously caring for millions of people already on ART (Schwitters *et al.*, 2015). Shortage of key human resources, (Cullinan, 2009; Department of Health, 2015) underperforming institutions, that have been attributed to poor management, underfunding and deteriorating infrastructure further compound the challenges (Department of Health, 2015).

South Africa finds itself in the midst of multiple interconnected social, economic, epidemiologic, demographic, technological, institutional and environmental transitions. These changes are having important impacts on health and well-being and on the capacity of health systems to respond to health related problems (Benatar, 2013; Schwitters *et al.*, 2015). Prior to the 21st century, patients had an episodic relationship with the health system that was dictated by acute care needs (WHO, 2014b). This approach to service delivery is now incongruent with current morbidity and mortality trends which demand regular, continuous care with a focus on needs rather than priority diseases (WHO, 2014b).The delivery of health services should continuously adapt and evolve according to changing demographics and epidemiological landscape. Changing demographics, economic constraints, increasing medical complexity, migration, overuse of services, discrepancies between policy and research, political culture and inefficiencies in the health system necessitate a health system transformation (WHO, 2017). An upsurge of noncommunicable diseases, other lifelong treatments and ageing populations

have given rise to multi-morbidities and chronicity, necessitating care that is pro-active rather than reactive, comprehensive and continuous rather than episodic and disease specific, founded on lasting patient-provider relationships rather than incidental provider-led care (WHO, 2014b). The current context calls for people centred health driven by the potential to secure health gains through the provision of services that are tailored to an individual's needs, for care that is continuous, appropriate, responsive and acceptable to the population served. This is in line with the principles of primary health care as well as vision Health 2020 (WHO, 2014b).

Health systems strengthening (HSS) involves initiating activities in the different components of a health system, and one way of thinking about this is to use the six HSS building blocks proposed by the World Health Organisation (WHO)-human resources, health finance, health governance, health information, medical products vaccines and technology and service delivery ('Health Financing Profile South Africa', 2016). Two vehicles chosen by South Africa to achieve UHC are NHI and PHC reengineering. Health systems strengthening is a component of the South African NHI initiatives being rolled out in 3 phases: 2012-2025.

- Phase 1:2012-2016 -focused on strengthening of service delivery platforms and overall improvement of quality in the public sector. The office of health standards compliance has been set up, audits of public health facilities aimed at improving quality have been completed (Katuu, 2018) and PHC re-engineering teams have been appointed.
- Phase 2:2017-2021-will focus on the development of NHI legislation and amendments to other legislation aimed at establishing institutions that will be the foundation for a fully functional NHI fund. This phase will also entail purchasing of personal healthcare services for vulnerable groups such as children, women, people with disability and the elderly
- Phase 3:2022-2025-this phase will focus on ensuring that NHI is fully functional (Department of Health., 2017)

Piloting health system strengthening initiatives in South African pilot districts, began in 2012. These health systems strengthening initiatives are still being carried out by the department of health in conjunction with other partners. Some of the initiatives are; leadership and management strengthening, general practitioner contracting, referral system strengthening, drug and supply chain improvement, district clinical specialist team, ward based and school health teams (Katuu, 2018; Michel *et al.*, 2018). The office of health standards compliance (OHSC) responsible for quality carried out audits to assess results of these health system strengthening activities (National Core Standards). Six priority areas were assessed namely; improving cleanliness, reducing waiting times, improving patient safety, preventing health facility acquired infections, improving staff attitudes and ensuring availability of medicines (National Department of Health., 2011). Findings revealed that only 6% of the public health facilities met the pass mark (70%) as of March 2016 (Fusheini and Eyles, 2016). The health systems strengthening initiatives though underway, were somewhat producing less than the expected results. The inability of the health system to effectively implement the six health system building blocks of leadership and governance, health care financing, health workforce, medical products and technologies, information and research and service delivery has been identified as one of the stumbling blocks on the road to UHC (Department of Health, 2015).

A central challenge facing policy makers today is implementing health system reforms to meet the challenges of the 21st century (WHO, 2017). There seems to be consensus that health systems transformation is key to dealing with these implementation challenges. The world health organization has prioritized two key areas namely; transforming health services to meet growing challenges of the 21st century and moving towards universal health coverage (WHO, 2017). Governments and policy-makers widely agree on the need to redesign the often fragments and reactive health system model generally viewed as no longer fit for purpose (WHO, 2017). If the current reactive health system model is no longer fit for purpose, can it`s

sub-systems like supply chain management, leadership development and performance management still be? The success of health systems transformation rests on an understanding of both the root causes (determinants) of poor performance and the contributions of the health system itself (WHO, 2014b). This can only be achieved through the engagement of health system actors involved in policy making and implementation.

Health systems transformation entails driving and designing stage, defining what makes an ideas time come 2) implementing and enabling, including the activities that support change and 3) Monitoring and feedback- assessing if change is working (WHO, 2014b).

UNITAS (Universal Coverage in Tanzania and South Africa-monitoring and evaluating progress) set up a system to monitor and track policy implementation aimed at achieving UHC in three pilot districts in South Africa, making it one of the few examples of steps taken to monitor and track policy implementation in low to middle-income countries (Hongoro *et al.*, 2018). As part of UNITAS, we tracked UHC policy implementation in one pilot district, through the engagement of both policy makers and policy implementers, documenting their implementation experience and progress towards UHC. In this paper, we focus on presenting perspectives of only one of the three pilot districts, 71 key informants in response to the question; What do you think needs to happen for the current UHC policies to be implemented successfully and why?

7.3 Methods

Selection of site

Ten pilot districts were identified by the department of health and selected as NHI pilot sites. The national department of health (DoH) selected these sites based on poor performance on key health indicators like high maternal and child mortality rates (Fusheini and Eyles, 2016). UNITAS purposively selected three out the ten selected NHI pilot districts in South Africa. This study is situated in only one of the three districts, district X (name withheld for anonymity reasons). We used a case study design for this research. A case study design is defined as an

empirical inquiry that investigates a phenomenon within its real-life context (Press Academia, 2018). The case was the district (X), conveniently selected as the only NHI pilot district in that province at the time. Managerial support and willingness to participate in the study also guided site selection.

District Health System description

A district health system (DHS) is the cornerstone of the South African health system (Department of Health, 2015). This is a geographically demarcated area with health care facilities to serve that population. Primary health care facilities serve as the first point of contact with the health system, followed by community health centres (subdistrict), which are slightly bigger, with resident doctors doing minor surgeries like caesarean sections. Cases that cannot be handled at this level are then transferred to the district hospital. The district itself is run by a district health team, headed by the district manager. She is supported by programme managers, primary health care supervisors and subdistrict managers among others, to provide support to health facilities. The district manager reports to the provincial authorities who in turn report to national authorities

Research Participants

Key informants ranged from provincial actors (policy makers) where the task of operationalising NHI reforms had been assigned (Oboirien *et al.*, 2018), and district, subdistrict and PHC facility actors (policy implementers). Purposive sampling of actors at provincial and district levels was based on, their knowledge and involvement in NHI activities, their availability at the times of interviews and willingness to participate. From district to PHC facility level, all actors were involved in NHI policy implementation and the district and subdistrict managers further assisted in the purposive selection of these key informants. Senior management, doctors and nurses from one district hospital, 2 community health centres and 10 PHC facilities were involved in the study. No patients were involved since their role in policy implementation is limited.

Data collection

Qualitative data were collected during three phases 2011-2012 (Contextual mapping), 2013-2014 (Phase 1) and 2015 (Phase 2). A theory of change approach was employed. TOC is a tool that describes assumptions actors have, explains steps and activities they take to achieve goals and connections between these activities and the policy outcome (Weiss C.H., 1994). Thus, theory of change allowed actors at provincial, district, subdistrict and facility levels to reflect on their assumptions, perceptions and experiences in the implementation of policies aimed at achieving UHC. In-depth face to face interviews were held with participants using a theory of change interview guide adapted for each phase (Annexure 1). This was informed by an iterative process of data collection and engagement with actors from contextual mapping through round one and two. Interviews took place in departmental offices and buildings where the actors worked, at a time suitable and agreed to by participants. The duration of each interview varied from 2-3 hours. Two researchers at every occasion, conducted the interviews in English. All participants were had qualified professionals who had no problems understanding or responding in English. All interviews were audio-recorded. All participants gave informed and signed consent and were free to withdraw from the study at any time. Below is a description of data collection phases;

Contextual mapping was carried out before the roll out of NHI policies (2011-2012). The goal of this phase was to assess the readiness of the district to rollout NHI policies. At this stage, only senior participants at provincial, district and subdistrict level (n=5) were interviewed using a semi-structured theory of change interview guide. Open ended questions were used to explore participants knowledge of NHI policies, knowledge of beneficiaries, assumptions held, challenges on the ground and activities they had planned to translate policy into practice. (See Appendix for Interview guide).

The first round (2013-2014) interviews involved actors from province to PHC facility level. Interviews were held approximately one year after NHI policy roll-out, and the goal of round 1 interviews was to elicit the experiences of policy makers and implementers one year into policy implementation. Utilizing the theory of change interview guide we explored their understanding of NHI, who the intended beneficiaries were, their assumptions as well challenges they were experiencing including challenges with regards to Information, Motivation, Power and Interactions. The same Provincial and district and subdistrict actors interviewed during contextual mapping were also interviewed during round 1. At hospital level and community health centre (CHC) level, management including senior doctors, operational managers and clinical staff. At PHC facility level, Operational managers and at least two other PHC nursing staff were interviewed (n=37). Occasionally, through-out the research, a facility data capturer was interviewed to fill the gaps on statistical questions like PHC head count, whenever the nursing staff were not sure.

The second round was carried out in (2015). The research took place in a context of provincial moratoria on human resource recruitment hence there was considerable high staff turnover and human resource shortages (Oboirien *et al.*, 2018). During this round, a new provincial NHI actor was interviewed. She herself was already on her way out as she had also just resigned. Most of the district actors from first round were interviewed, excluding one manager who had resigned and a senior one who had no time. The same subdistrict actors and many PHC facility managers and staff took part in this round (n=29). Despite the high staff turnover, including resignations and the death of one PHC operational manager, many participants were interviewed at least twice during the 5-year period. The goal of round 2 was to elicit from actors what they had achieved in terms of NHI policy implementation during this period. We explored with each participant, what had transpired since our last visit and what the participant had achieved in terms of activities they had planned to carry out. If they were successful, we

explored for factors that facilitated implementation and if they failed to carry out the planned activities, we also explored for factors that hindered implementation. We concluded the interviews by asking all participants the following;

Central Question

“What do you think needs to happen for the current UHC policies to be implemented successfully and why? Is it with regards to information, power, interactions and motivation, resources or other factors?”

Sub-questions

“Who in your opinion are the key structures / people or systems that are in place or need to be put in place to make these UHC interventions work at their best and to become part of routine services? These were followed by prompts based on response given. See table 1 below for a summary of key informants, research role and health system level they worked on;

Table 6: Overview of key informants, research phase, role and where they worked (health system level)

Health System Level	Role	Contextual mapping	Round 1	Round 2	Total
Provincial	Policy maker -making sure NHI policies are carried out	1	1	1	3
District	Policy implementers ranging from district manager, programme managers, district clinical specialist team, Emergency rescue service manager and PHC supervisors with policy implementation responsibilities including the PHC supervision manual	1	5	4	10
Subdistrict	Policy implementers at subdistrict level ranging from Chief Executive Officers (CEO) managers, nurses and doctors implementing policies aimed at UHC as well as providing direct patient care	3	12	8	23
PHC facility	Policy implementers including operational managers and staff in PHC facilities implementing policies aimed at UHC as well as providing direct patient care	-	19	16	35
Total		5	37	29	71

Data analysis

All interview recordings were transcribed into word documents. A deductive and inductive approach to data analysis was utilized. Contextual Interaction Theory (CIT) framework was

used as a starting point for data extraction allowing for new themes to be developed inductively following Braun and Clarke approach (Braun, V. and Clarke, V, 2006). Analysis followed an iterative process of familiarisation with data, coding, creating and reviewing themes as well defining them while avoiding over condensed data (Braun, V. and Clarke, V, 2006) which can lead to loss of content or context ('ritchie.pdf', no date). The basic assumption of CIT is that the course and outcomes of the policy process depend not only on the inputs (characteristics of the policy instrument), but more crucially on the characteristics of the actors involved, particularly, information, motivation, interaction and power (Bressers Hans., 2004). Data management and coding was done with the aid of MAXQDA2018. Trustworthiness criteria were used to evaluate rigour for this study (Forero *et al.*, 2018). Trustworthiness concepts included dependability, credibility, confirmability and transferability. To ensure dependability we described data collection process in detail and two researchers experienced in qualitative methods kept reflexive individual journals through-out data collection and analysis. Debriefing after interviews was done daily in the field. The two researchers further analysed the data independently before reaching consensus under the supervision of experienced qualitative researchers. To ensure confirmability findings were discussed with supervisors experienced in the field and their responses were incorporated. To enhance transferability, participants, context and process of analysis have been described in detail (Forero *et al.*, 2018). Data source triangulation was achieved using actors from different levels of the health system and interviews carried on until we reached data saturation (Saunders *et al.*, 2018).

Ethical Considerations

The study protocol was granted full ethical approval by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF BE197/13. Gatekeepers permission was granted by the KZN Provincial Health Department; REF HRM4/2. A support letter was also obtained from the District Manager. In addition, informed written consent was obtained from all actors who took part in the study.

7.4 Results

Seventy-one (71) participants involved in UHC policy implementation were interviewed. There was consensus among all actors from provincial to facility level, that the current health system was set up at a different time and that the structures and systems are no longer fit for purpose ('Leading-health-systems-transformation-to-the-next-level-report-eng.pdf', no date). Six main themes emerged from a thematic analysis of the responses given as presented below.

Theme 1: Make PHC work

Get basics of PHC right, including preventive and promotive focus

Astana declaration 2018, was designed to begin a period of a new global commitment to primary health care for all. In many countries, health resources have been focussed on single disease interventions like HIV care and treatment, rather than strong health service delivery systems close to the people who need them (*New global commitment to primary health care for all at Astana conference, 2018*). All actors cited the need to have the basics in the health system right, particularly primary health care. Some examples of what participants said follow;

“You see things will change when the District Health gets its system right, and I told them this in the District meeting. If they want primary health care, you know the District Health system has to work. They need to get primary health care working, which they are not, because our CHCs (community health centres) are not doing deliveries and yet they should be. They haven't developed the CHCs. Most of the patients without complications should be delivering at the CHCs. If they get the District Health system right, maybe we will improve.” Subdistrict actor round 2

“I think the way to improve the health service is to make basics well-functioning, the PHC clinics should be fully functional-most of the clinics are under-staffed, there is no equipment. So, they should provide PHC facilities with staff, equipment and the training,

those three things. Look, they are sent on training only to come back to a facility with no equipment, no staff, the clinic being served by one or two nurses. The best way to improve the service is to improve the services of the clinic first. Well, you could make them 24-hour service providers but then give them sufficient staff. If we improve PHC services, that will reduce the work at the hospital. Most of the clinics are open from 8 to 4pm. Even that 8 to 4pm shift is not functioning well due to shortage of staff; equipment and some clinics have no medicine. So, if primary health care is improved then hospital care will also improve because if our work load is reduced, we then can provide better care here.” Subdistrict actor round 1

“The hospitals are congested... they are congested. You see the department should put more focus on primary health care, so more resources should be allocated to primary health care. If the clinic is there, with no staff or closed, the patient has no choice but to come straight to hospital.” Subdistrict actor round 1

Regular and supportive PHC supervision needed

Closely associated with a functional Primary Health Care (PHC) is PHC supervision. It has been described as one of the most effective ways to improve quality in Primary Health Care Systems (Jacobs *et al.*, 2014) if functional. PHC supervisors are responsible for ensuring that resources needed for proper functioning of the PHC are available at all times (National Department of Health, 2009). All actors from Province to facility level agreed that PHC supervision was inadequate and erratic but gave different reasons for that. At district level, where supervision is coordinated, shortages of cars, human resources, acting supervisors, multiple initiatives (Jacobs *et al.*, 2014) and meetings were some of the reasons given for the infrequent visits. At provincial and sub-district level, some actors went on to blame laziness on the part of some supervisors as revealed below:

“So, it is critical to get the right managers. Managers that are prepared to take risks. Managers that are prepared to embrace change and if you still have the district managers who to them business is sitting in offices with air conditioners and comfy chairs, we will not get anywhere.” Provincial actor round

At facility level, actors being subordinates and having less power, speculated less about the reasons for the erratic PHC supervisors’ visits. According to them, the current PHC supervision system was simply not working irrespective of reasons, hence they called for a transformation of PHC supervision system. They said they need a new system that guarantees them regular supportive visits and assistance to overcome challenges that are preventing them from complying with policy requirements. Frequency of visits is what seemed to matter, as their expressed desire is to have the supervisors get to see the reality on the ground, and that way, understand their needs better.

“If only they could come to the facility, to see the real facility experience, see exactly what is going on, ...because when they just call us there (district office) to their meetings, they don’t see what is happening in the clinic.” Facility actor round 1

“I would like them to come more often and look, not just look at one thing, but look at what’s lacking in the clinic and how they can help us to get that because, obviously, they have a little more power than us. “

Facility actor round 1

Sensitivity to context and flexibility needed from Supervisors

To ensure standardization of PHC supervision, a PHC supervision manual has been developed (National Department of Health, 2009). According to facility actors, many PHC supervisors seem to focus on ticking the supervision manual checklist, one size fits all approach and fail to see their facilities in context. Although both rural and urban facilities expressed the same erratic PHC support, health facility needs differed for example with those located in the cities experiencing challenges like after hour care as compared to those in rural areas (no

demand for that service). To that end, all facility actors cited the need for PHC supervisors to consider each facility as separate, with unique needs and context including PHC head count etc. In a high staff shortage and turnover context, the actors cited a need for sensitivity and flexibility, particularly with regards to statistical report submissions. Actors said the following;

“Supervisors, come and see us and ask what our challenges are per facility because we are different.” Facility actor round 2

Planning ahead and progress meetings

Many actors cited meetings as multiple, uncoordinated and mostly unplanned, taking them away from work. They suggest transforming the way meetings are done by having constructive NHI progress meetings where the supervisors actually come to the facility and see the challenges and the actual ground situation as revealed below;

“What we need to have are constructive meetings on the go. You see what you(researcher) are asking me about challenges I am having, I would rather be asked by my bosses, do you understand? So that we can tell them that okay this is where the problem is, can you sort this out? NHI progress meetings walking about the facilities here you know.” Subdistrict actor round 2

Problem solving and dealing with root causes

Longstanding, unresolved problems were cited by all actors as impeding policy implementation. Facility actors suggest not only addressing symptoms but dealing with root causes as well as having timeframes for problems to be resolved. Root cause analysis entails looking deeper at why an event repeatedly occurs, identifying patterns and underlying structures that could be acted upon to prevent event from reoccurring. They also cited that when the PHC supervisors eventually visit, they often lack the power to effect decisions or help facilities solve their problems. Below is what some actors said:

“And also, we are dealing with the symptoms and the root causes are not being addressed. So, there is nothing that is directed as addressing the root causes at the moment. That is a real thing. And to develop sustainable strategies for NHI. Right? Going back to the human resources issue because sometimes your establishment may not have a post for an artisan you know or enough posts for a plumber and yet you are expected to look after a whole big hospital plus the clinics attached to you, and you do not have a post for a plumber? And you get taps and toilets that break, so who is actually going to fix it for you?” Subdistrict actor round 2

“It is also very important that, whenever there is a problem to say okay this particular problem will be solved by this time. Even though we identify gaps when we do the assessments... yes, they expect us to say these are the problems my facility is facing. Okay. Who will solve those problems by which time?” Facility actor round 2

Theme 2: Involve us in policy development

NHI policies were developed at the top and communicated to the frontline (*National Health Insurance - NHI, 2015*). All participants cited the need to be involved and the need to change from the traditional way policies are formulated. According to many actors, that is one of the reasons many directives from the top are not realistic. It is simply because the supervisors at the top are removed from reality. They also highlighted that each facility is different hence the need to engage with them individually as some policies though suitable for some facilities, are simply impossible to implement in other facilities due to infrastructural or staff challenges.

Involve us

All actors repeatedly cited the desire to be involved in policy development and priority setting. They also view their involvement as an opportunity for facility priorities to be taken into account.

“The NHI plan is a good plan, if it is implemented, definitely it will improve the quality of service, but then that good intention should start with the involvement of all parties if they really want to implement it” Subdistrict actor round 2

“I want to be involved. When they say, “This is your budget.” I want to sit down with them and they must tell me, “Okay, this is the money that is for your staff. This is the money that is going to be allocated towards your clinic maintenance, the items that you need, and your furniture or whatever.” So, I can say, look, this is what I need, in terms of priorities, this is what I need right now. There is so much more that I would like to see happening. Things that are vital necessities. For example, a vaccine fridge, a fridge where I can store vaccines at the correct temperature; I’m using a bar fridge. And I have motivated, I have put in a Non-stock item (NSI) but I have not seen anything up to this day.” Facility actor round 1

Policy relevance and facility readiness

Being involved and consulted was also viewed by actors as a way to assess policy relevance and readiness to implement, something they said is not done. Actors described this below:

“Okay the first thing is that consultation I think we must be consulted number one. Number two they must see before the policies are finalised how much resources you need to implemented this policy. And how much is available. So, considering those first then they should finalise the policy and start implementation. Just signing policy is not enough to have it implemented and involve stakeholders in every sector because policies must be relevant for us to implement. Subdistrict actor round 1

“If you introduce something, make sure that the receiving end is ready for it. And don’t assume that they are ready. Make sure that they are really ready.” Facility actor round 1

Support bottom-up initiatives

Staff establishment is dictated from the top. Actors highlighted how they come up with initiatives dictated by needs and situation on the ground. The supervisor on the other hand fail to recognize and support these bottom -up initiatives affecting service delivery

“NHI says strongly that the package of service of all the health institutions are determined by the public needs. It should be. Our package of service is determined by what? Because it gets given to us from head office. You are a District hospital. You should only work on this and that and then we get a staff establishment that is squeezing us into this District package of service which says XYZ only to be done. Yet here in this hospital as an example we have a growing orthopaedic service. Why is it growing? Because of the need. We are right next to the N3. The accidents on the N3. Easter weekend it is bumper to bumper there. They all end up here.” Subdistrict actor round 2

“The other thing that is happening to us is that our anaesthetic component no longer exists on our new structure. The District package of service does not require an anaesthetist because anyone can do local anaesthetic for a Caesar. For that kind of surgery. But because we have an influx of all of these cases, we still have anaesthetists. It is dictated by the public need. Now that needs to be brought into the minds of our principals. I have said that at meetings.” Subdistrict actor round 2

Theme 3: Transform the way policies are implemented

Policies are communicated from the top, and actors revealed how they often find themselves between a policy dictate and lack of resources on the ground, to translate that policy into practice. At provincial level (policy maker), availability of resources was viewed differently. According to them, the earmarked NHI conditional grants had made resources readily available now more than ever. On the other hand, actors at district level, subdistrict and facility level cited resource shortages as a major obstacle. NHI has quality requirements facilities have to

meet if they are to be credited. The province did not provide a supplementary equitable share (Fusheini and Eyles, 2016). The conditional grant on the other hand, prescribed to the district what has to be done with the money, leaving no space for facilities to address their own specific facility priorities. Resultantly, some actors reported how they received linen (they did not need) despite not having a basic item like fire extinguisher or sprinkler in case of a fire in the facility. They equated the NHI demands to a new red Porsche being parked in a dilapidated garage as revealed below;

“So, my one biggest concern is- give us the proper resources. Whether it is financial, human, material, delegations and everything. And then we will fly. The other part is parking, this NHI Porsche in the yard because our infrastructure is deteriorating and now there is this huge lovely red Porsche (NHI) that is here and we are more like a VW Shuttle. So, we are saying parking the NHI Porsche in a dilapidated infrastructure, in the car park, not in the garage will cause some kind of tension. Because if you walk through my wards there is not even a sprinkler system to protect my patients if a fire breaks out. Quality needs to become a way of life.” Subdistrict actor round 2

Stock taking of resources and the six building blocks before policy roll-out

The issue of resources was crosscutting. Participants repeatedly pointed out how they fail to implement policies as a result of human, material and infrastructural challenges, suggesting stock taking of resources before policy directives. Participants highlighted the need for the stock taking to be holistic, efficient and encompass the six-health system building blocks. Actors stated the following:

“So now you can't standardise the quality of care between us and the private when you don't have resources, you see, when government is not putting resources in terms of staff, equipment, medicine supply, facility improvement, you know, we will not get anywhere.”

Subdistrict actor round 2

Involve change agents

Most of the actors cited not being fully aware of their roles and some told how they got handed files with new policies and were neither trained nor orientated on how to prepare for national core standards to date. They suggest having clear policy orientation sessions and change agents in future as revealed below:

I know in the private sector, they hire private change agents, and work with these people and try and get staff to adapt to change. This is what we need, I even raised this in our district meeting, when the District Manager was there.” Facility actor round 1

“We need change agents and quality champions. Yes, people need to be motivated to internalise these standards but now when it comes to personal things like that, you need the person or the people to push to get that kind of internalisation. Quality is a way of life and I think we have got the will. Yes, you need the will but you need to also find the way because it is greater than just the papers and the standards.” Subdistrict actor round 2

Theme 4: Public private partnerships

Learning from the private sector

NHI has been associated with bringing private sector standards into the public health sector by many South Africans. South Africa has some of the state-of-the-art private facilities in the world. All actors from provincial to facility level, cited the private sector as a resource to be tapped into, suggested involving the private sector in improving public sector standards through partnerships or secondment of personnel.

“The other thing which can help also is to, probably to try and learn from private sector to have this kind of public private partnership, so that some of these institutions especially this pilot site, if maybe we can have some private sector involvement, so that we learn from them. The hospital can say okay, let’s have maybe some private people to come, give them some posts here, so they exchange their knowledge and their way of doing things with us. I

think that also can help, because I wouldn't know why, for instance, I can have this light bulb not being replaced for six months, but when you go to a private facility, if this light bulb goes off today, it gets replaced today, you get the point, and the government has got more money than the private sector, but this light bulb takes six months to replace. So, I think public private partnership will be a good thing also, so that we learn from them and they can observe, see how we do our things, and advise us, that this is how we do it."

Subdistrict actor round 2

"Yes, because if we are really talking about private care, they must assess how the private sector works in order to benchmark standards and they must be aware that okay they want to take care of a big pool of people or clients who use these particular services, then plan and budget for that. The private sector does not have a big pool of patients like in the public sectors. Only a few who can afford go to the private. That is where there is this particular quality but when you are assessing in realistic terms, it is not that the quality of care in private institutions is better." Facility actor round 2

Theme 5: Transform processes and systems

Actors at all levels without exception from province to facility pointed at the need to transform all systems if NHI is to be realized. These systems ranged from power to the frontline, supply chain, human resource practise and staff motivation.

A provincial actor gave the narrative below;

"But the question is, have we done enough in terms of transforming our health systems? Because probably or maybe I expect a manager to have undergone all the mentoring, the support, the coaching, the training but she comes back and finds I'm still using the same tools but aiming to achieve different results. If I still have the same old same supply chain frameworks and same delegation, same protocols. Back to that same system, same approach? So, government is over-regulated. You have all these red tapes that are affecting the whole of South Africa, for example to recruit a doctor. Other private organisations go to those

professional networks. You see a good CV there and invite the person for an interview, set up a panel, but here, I have to do a process three months long just to get the adverts out. So, those are the systemic processes that are very difficult to actually work within. So, those are the major macro challenges.” Provincial actor round 1

Organizational culture

“Then you also have what I would classify as micro challenges. There is the social culture, things that you cannot touch but things that are existing and persisting. In government, it’s business as usual. My job is secure. To get one person fired, no.... that does not happen, they just get transferred out. You have to produce bibles of evidence. Different committees around finally arriving at saying this person is not productive. So, those are (organizational) cultural decision and quality tends to be a secondary issue.” Provincial actor round 1

Communication channels

Some actors cited the lack of a functional two-way communication system as a huge stumbling block. They expressed how they themselves or the PHC supervisor spend time writing motivational letters for equipment or staff to no avail as revealed below:

“I really don’t know how that is going to happen. To implement NHI successfully, they need to put a whole lot of new systems in place. In fact, new buildings and facilities, our toilets are in such a terrible state, I need to take you to our toilets. We’re just not okay. There’s lots of systems that need to be put in place. This hospital is dilapidated. I’ve worked here for so many years we’ve never been in the state that we are now. Never. It is going to take long to reach NHI, because it’s major structural changes, buildings etc. You know new systems have to be put into place.” Subdistrict actor round 2

Supply chain systems

Supply chain systems were cited as dysfunctional by all actors from province to facilities. The challenges emerged as complex.

Include end user in supply chain system for efficiency

Facilities reported going for months on end without supplies or maintenance of roofs or toilets. Others cited getting the wrong orders. Other actors suggesting transforming supply chain systems by including an end user like a nurse in the supply chain department for efficiency purposes;

“There is another particular problem with regards to supply chain. I do get most of the things but I would further wish that the person who is a Nurse be in supply chain, so I am able to say these are the things are I need... because you find out that there are things that you need like whenever I need containers to extract mucus.... I even went there and gave them the sample. This is the thing I want, but they still gave me the wrong thing. Facility actor round 2

Plan for equipment servicing and have clear maintenance plans to save costs and improve outcomes

Hypertension is one of the biggest epidemics in South Africa but most people do not know they have high blood pressure (Cullinan, 2018; *The data brings it to light*, 2018). There are no clear maintenance or service plans for equipment and many actors revealed that their blood pressure (BP) machines for example have never been calibrated making them prone to giving false readings. A supply chain with clear service and maintenance plans for equipment could not only save costs but also outcomes. One actor said the following:

“Like, I mean, our HB metres, when the batteries are low, they give you wrong readings, they won’t even give us sufficient batteries for equipment. So, we get wrong readings. It probably causes more harm than anything else. We don’t have someone who comes and maintain our equipment including incubators. Our cardiotocography (CTG) monitors are used full time on a twenty-four hours basis. There’s no one who comes to do a service plan, you know, to maintain things. There’s nothing. So, ours (equipment) break at the end so we end up having to buy new ones all the time, and it costs more money. Where we auto-clave

things? It's broken, and I mean I spoke to the sister that's working there. She said its broken because she couldn't find oil to put into that machine and the whole thing is now broken.

Subdistrict actor round 2

Power and Decentralization

Lack of power to take decisive actions e.g. to hire personnel or get resources were cited as a huge stumbling block in policy implementation. The provincial actors agreed to a certain extent by saying decentralization is the way, but they also had some reservations as revealed below;

“So, decentralisation, yes of course it's the way to go. A very critical starting point but also putting then the systems that ensure that the decentralised functions, the managers are held to account. But also appreciate what are they contributing to the bigger scheme of things. To decentralise somebody who just enjoys the powers to be big boss to be called a boss somewhere there without using those powers that have been delegated to improve the bigger picture of things in the province. Again, it's a waste of time and resources.”

Provincial actor round 1

Give us power and decision-making space

District, subdistrict and facility actors on the other hand unanimously cited the need to transform the system by bringing power to the frontline as follows;

“They must give us power. Yes, decision making power for NHI to work”. Facility actor round

1

“Yes, give us the money. Give us all the powers and let us do the things ourselves. We won't buy stuff that we don't need. As long as we follow the Supply Chain Management procedures properly and we know we don't do wrong things, that's all that matters. That is what they should evaluate.” Subdistrict actor round 1

Leadership development

At provincial and district levels, all the actors reported having attended leadership training. Why this was not translating into results was not clear but could be partly attributed to the organizational culture (Gilson and Agyepong, 2018). Leadership challenges in the health system have been well documented (Dookie and Singh, 2012b; Jacobs *et al.*, 2014). One actor said;

“For everything else to work, the Head must be strong okay. Get the ones at the top to do their work then all these below will do their work too. That is all.” subdistrict actor round

2

The process of how leaders are currently being developed was raised. Actors suggest transforming the way leaders are developed with some suggesting the following;

“Eradicate the current cadre of practitioners, health managers. Get a new cadre of managers. Put them in a contained, controlled environment and then say this is what I need from you. But one, we need to have a cadre of leaders that are made to account...with that socialised in the culture of producing quality.” Provincial actor round 1

Leaders that are motivated needed

Many actors cited that motivated leaders are needed for NHI to work.

“I think some of the supervisors are very set in their ways. You know I think we need more of a younger, motivated generation-we need leaders. We do not need Managers. We need leaders, anyone can manage, but to lead? We need leaders that think outside the box, that are motivated and can motivate others.” Facility actor round 2

Many actors cited the need for leadership to transform from blame to responsive leadership, that is able to take action and solve challenges as revealed below;

“The District Team who wants us to be an NHI pilot site need to get involved from Management level. They need to sit and say these are the issues that are in the clinic. What

can we do? We cannot shift the blame from Municipality to DOH. It is a problem and it needs to be sorted out so as to motivate the staff. I think at the moment no-one wants to be here.” Facility actor round 2

“It starts at the top because even when it comes to the six priority areas about the cleanliness, we run short of toilet paper at times. But if we do not have money and you keep on writing the NSI, I request this and there is no response.” Facility actor round 2

“It is our management, because we have been pleading with them, that some of the things we cannot do on our own. They need to assist us. Because for instance for an ideal clinic, most of the things we are told to have, needs to be done by the District office, like the signage, it’s the district that needs to attend to that. We have no power. Like the notice boards and there are lots of outstanding things. It is their responsibility and we are not going nowhere if the District office is not going to assist us fully.” Facility actor round 2

Context specific leadership training and quality management

Transformation of leadership development systems have also been cited with actors recommending relevant and context specific leadership training and quality management. Many managers have degrees in management from local and international institutions, but they seem not to be equipped to lead locally as revealed below:

“Actually, we have done an assessment of our managers here. We’ve got a lot of academics in the Department of Health. Look at the managers that I’m working with here, the team. These are clinicians all with different degrees. Hence, we need a tailor-made programme, leadership-training programme that is not a masters, that is not probably a degree but that is business oriented, outcome-based trainers. Because taking me to Metropolitan Leads University and then coming back with this degree does not necessarily make me a better manager here in this context.” Provincial actor round 1

“So, if we are really serious about this whole NHI thing and all of that, nursing schools should actually have a component in their administration section (curriculum) about quality management.” Subdistrict actor round 2

Transform employee performance and management systems to motivate staff

All actors recommended the transformation of employee performance motivation and development system (EPMDS) which they cited as useless and a waste of time. Of particular importance seems to be the need for actors to be appreciated for what they are doing despite their current working conditions as revealed below:

“They say the stats are low, this is not right or that is not right. I wish somebody someday could come and just recognise us and the good things that we do.” Sub-district actor round 1

“Like I said before, maybe we also need to be attended to in the form of counselling or recreational facilities that can be provided to us. Staff wellness. Or motivation. I don’t know but there is something that is really lacking that we need. We can’t be attending to patients all the time without being attended to.” Facility actor round 1

“I am sure it is an experience in all other clinics. Nurses’ day came. Not one person said from Department of Health thank you to the nurses. We are pushing here. We pushing benches. We are not seeing patients. We are not giving quality care; we are seeing quantity. There is no flexibility. The supervisor does not come and say thank you guys for working so hard. It is always problems, problems, problems. Reach this target, reach that target. But what about the staff? We are working on fumes or adrenalin. We try our best, but from our point of view she (PHC Supervisor) has got no compassion. So, we are multi-tasking with no support system- we are burnt out.” Facility actor round 2

Theme 6: Adopt a Systems lens

The goal of NHI is to achieve UHC. To that end multiple initiatives are being rolled out. Many actors found these initiatives though interconnected and interrelated, not coordinated. Programme leaders often concentrate on having their indicators achieved, losing sight of the overall UHC goal. Many actors highlighted the need to adopt a system thinking lens, identifying points of leverage while at the same time on the lookout for unintended consequences (*Peter Senge's 11 Laws of Systems Thinking*, no date) if UHC is to be achieved.

Moving from silo mentality of “my programmes,” to seeing all programmes as interconnected
Health system strengthening interventions are often done in isolation from each other and without coordination within the overall PHC systems (Michel *et al.*, 2018). Many actors cited the need to transform the way programmes are operated and viewed, moving from silo mentality to seeing wholes and interconnectedness of programmes and activities all aimed at achieving UHC.

“When we talk about NHI we are talking about Virtual electronic medical records (VEMR) so what is happening here...I do not know people are so...they are one-sided, you know. When we talking electronic records, they just talk electronic records and forget about Medipost and when they talking about Medipost they forget about the GP contracting you know. And then you find that people concentrate on one thing and forget about everything else. Yet all these things are supposed to go together. We should have meetings where we have NHI progress meetings like okay with Medipost what is happening? Right which sites have you identified? How far are you? GP contracting. Are you happy? How often do the Doctors come? How often would you like the Doctors to come for this thing to work?” -subdistrict actor round 2

Adapt training programmes to maximize efficient use of limited human resources

Over and above leadership development, some actors suggest transforming and adapting some training programmes for relevance and efficiency as revealed below:

“How if we change the way how we practice as EMRS, if our staffing manning the obstetric units, could get more training, in dealing with the essential steps in management of obstetric emergencies those people could be absorbed, by the institutions and they do not merely transport maternity patients, but become physically involved in the, maternity wards, assisting in labours, doing whatever that is supposed to be done there, and then when patient that needs to be moved, they move the patient. What I am saying is, if you say you will have EMRS personnel, to transport patients only, there will be a huge underutilisation. Sometimes you will find that inside the particular institutions, everything is going well. It's going well in such a way that the obstetric unit is having no movement, I mean If I was waking up to go to work, and I haven't done any piece of work, I mean, I will get bored, sometimes I would be taking the vehicle, driving to somewhere, I'm not supposed to drive.”

District actor round 2

Take epidemiological transitions into account

Apart from being involved in policy formulation, all actors suggested taking epidemiological transitions into account seeing relationships and connections between demand and supply;

“Okay. This thing happened and that was before this HIV era. Previously the clinics were working well. It was nice. They were seeing around about 7, 10, 15 patients but today you cannot see 15 patients in the clinic. You can never see 10 patients you see 60 and more, so that further makes you wonder how can you provide all the particular quality of care that is supposed to be given with the same amount of resources?” Facility actor round 2

Streamline data collection for efficiency and maximise data use in planning and evaluation

Many actors suggested transforming the way data is collected, used and reported. They feel that reporting should be transformed to become a way of communicating with the higher levels, getting their attention and support, going beyond tick-boxing as revealed below;

“You know because a report does not just sit with us it goes to National. And it goes to the Office of Health Standards and Compliance so surely there must be red flagging, saying what, you always fail because of cleaning. What is happening there? What do we need to do to support you? I would like to see that.”-subdistrict actor round 2

Many actors suggested that supervisors adopt a proactive rather than a reactive approach to data and reports sent to them;

Like say for instance, okay, this programme is managed by nurse X, and this programme is still managed by nurse X, but nurse X may be managing four problems you see, so then I would love to see somebody say, but how can nurse X manage four programmes being one person? Isn't it a bit overloading for nurse X or what would happen if nurse X gets sick? So then intervene early and plan ahead.” -facility actor round 1

See table 2 below for a summary of emergent themes;

Table 7:Summary of Emergent Themes

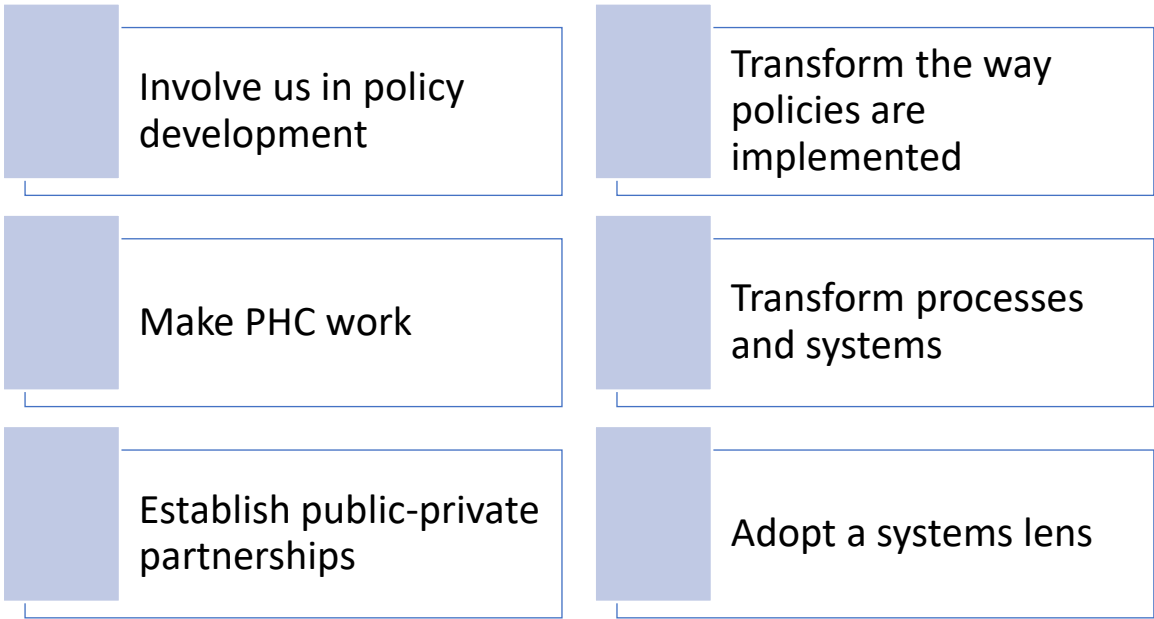
Theme	Category	Unit meaning
Make PHC work	<p>Get PHC basics right:</p> <p>Transform PHC supervision</p>	<p>Get the District Health System right</p> <p>Make the PHC facilities functional</p> <p>With sufficient resources, staff, infrastructure and material</p> <p>Get motivated supervisors who can provide regular supportive PHC supervision</p> <p>Supervisors that help us find solutions to all problems faced by facilities</p> <p>Be sensitive and flexible to context and situation on the ground needed</p> <p>Higher level support visits instead of assessments</p> <p>Plan meetings ahead and deal with root causes when problem solving</p> <p>Streamline meetings and have constructive NHI progress meetings on the go</p>

		Include clear time lines in problem solving
Transform health policy development	Involve us in policy development Support bottom-up initiatives	Involve us before policy is finalized to get to know the reality on the ground Involving front line staff ensures policy relevance We know what facility priorities are Staff establishments need to be dictated by local needs Involve us in streamlining activities and setting priorities
Transform health policy implementation	Stock taking of resources before policy roll-out Orientate us	Ensure resources availability and facility readiness to implement policy Employ change agents
Establish Public private partnerships	Learning from the private sector	Assess how the private sector works Get some secondments from the private sector into the public sector for knowledge exchange

<p>Transform processes and systems</p>	<p>Overregulation and systemic issues</p> <p>Micro challenges</p> <p>Transform supply chain management</p> <p>Power and Decentralization</p> <p>Leadership development and quality management</p>	<p>Red tape</p> <p>Effective and Efficient systems</p> <p>Have clear turn-around times for solving problems</p> <p>Have maintenance and service plans for equipment before they break</p> <p>Include End-user in supply chain e.g. a nurse.</p> <p>Power to the frontline</p> <p>Power and financial delegations to the district and facilities</p> <p>Responsive leadership that solves problems</p> <p>Responsive leadership that responds to motivation letters</p> <p>Relevant and context specific leadership training</p>
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	<p>Communication channels</p> <p>Transform staff development and Motivation systems</p>	<p>Include quality management in basic nursing curriculum</p> <p>Two-way communication-listen to us too</p> <p>New training that produces accountable leadership</p> <p>Employee performance system that rewards staff</p> <p>Staff appreciation</p> <p>Care for the carers</p>
Adopt a systems lens	<p>Adapt training programmes to maximise efficient use of limited human resources</p> <p>Epidemiological transitions to be planned for</p> <p>Streamlining data</p> <p>Seeing interconnectedness of activities and programmes</p>	<p>EMRS drivers trained to do deliveries</p> <p>Resource and service adjustments to be done</p> <p>Interact with and react to reports</p> <p>Moving from silo mentality of “my programmes”, to seeing all programmes as interconnected with UHC as goal</p>

Figure 14: Diagrammatic summary of Findings: Health system transformation rather than Health systems strengthening



7.5 Discussion

This study revealed that policy makers at provincial level and implementing actors at district, subdistrict and facility levels view the way the current health system in South Africa is designed, as a hindrance to NHI success and ultimately UHC. PHC was revealed as inefficient and ineffective, policy development and implementation as top down, public private partnerships as lacking, processes including leadership development as not suited to context, systems like supply chain as dysfunctional and systems thinking as lacking.

Our findings are consistent with a study that revealed that many service deliveries models have outlived their usefulness in terms of their ability to meet changing demands of people and populations. Outdated service delivery models constrain the extent to which systems can capitalize on 21st century advancements (WHO, 2014b). To strengthen means to make stronger or more effective, but actors revealed that the current systems were set up at a different socio-economic, demographic and epidemiological time even if they are made stronger, they have become obsolete. That is the reason they are calling for health systems transformation rather

than health systems strengthening for NHI to work. Innovation seems to be the way to cope but health systems in many countries have been slow to innovate (Lancet, 2018a, 2018b).

Findings indicated that PHC is currently weak and ineffective thereby affecting service delivery. The philosophy of PHC is an important component for the health transformation process in South Africa (Dookie and Singh, 2012b). This finding is consistent with research that revealed that Primary health care is in crisis (Lancet, 2018b). The strength of service delivery function is attributed to the spectrum of selected interventions across the full continuum of care-from preventive, promotive services, diagnosis, treatment, rehabilitation, long term palliative care, behavioural and psychosocial risks to ill health (WHO, 2014b).

PHC is underdeveloped, underfunded, facing severe workforce recruitment and retention challenges in many countries (Dookie and Singh, 2012b; Lancet, 2018b). Heavy workloads, staff and material shortages, staff patient attitudes, long waiting times, poor supervision and support are persistent challenges health systems face (*WHO / Universal Health Coverage at the top of the global health agenda*, 2012; Johns Hopkins University- Global Health. Bloomberg School of Public Health, 2013; Department of Health, 2015; Nxumalo, Goudge and Manderson, 2016). Our findings confirm all of the above. Many years post the Alma Ata declaration, half of the world's population still has no access to the most essential health services (Lancet, 2018b). What is needed are more prevention focused systems that centre on smart primary health care with more upstream emphasis on issues such as health-positive behaviour, water, sanitation, hygiene, and addressing adverse cultural practices (Barbiero, 2014). In 2018, the Astana declaration marked the recommitment of countries to primary health care (Lancet, 2018b). To reach the UHC goals, dysfunctional public health infrastructure must be resuscitated and extended, efficiency and effectiveness of management practices must be enhanced, priorities set in an accountable and transparent manner. This will help to ensure resources are used more effectively and efficiently. It is worth mentioning that there is a global health worker

crisis too, hence tens of thousands of additional skilled and motivated health care workers must be trained and retained (Benatar, 2013). According to the World Health Organization, weak Primary Health Care is one of the top ten global threats facing 2019 (WHO, 2019)

Findings called for transforming the way policies are developed. Current policy development approaches are mostly top down, with little or no involvement of frontline actors to give their input on the actual situation on the ground (Pressman, Jeffrey L and Wildavsky, Aaron, 1973). Lack of staff consultation and involvement in policy development (Coovadia *et al.*, 2009; Michel *et al.*, 2018) have been cited as contributing to the discrepancy between HSS initiatives and challenges on the ground (Michel *et al.*, 2018). Actors repeatedly cited unrealistic targets set for them without the provision of the needed means to achieve them. This has often resulted in blame when actors failed to reach targets, further eroding their motivation. Our findings concur with a study that revealed that, when unrealistic expectations are set by policy makers, blame is often used when expectations are not met (Dookie and Singh, 2012b). Early involvement of staff and taking into account the needs of the public and staff have been revealed as key to successful policy implementation (Hongoro *et al.*, 2018). Asymmetrical relationship between high level policy-makers and frontline workers is of particular relevance in policy development. Those working on the frontline do not necessarily need to take into account the considerations of those working at a higher level, the high-level policy makers on the other hand cannot succeed without a grasp of what happens on the frontline hence serious attention, must be given to how effective relationships, between high level policy makers and frontline workers can be achieved (WHO, 2017).

Actors are calling for transformation of the way policies are implemented. Policy implementation was revealed by many actors as challenging, with many actors citing role ambiguity, resource and infrastructural challenges as well as lack of supportive leadership. Consistent with our findings, PHC post 1994, failed in South Africa due to insufficient attention

paid to implementation (Dookie and Singh, 2012b). Key factors that foster innovation and policy implementation are supportive leadership, dedicated resources including funding, staff and time (*WHO / Universal Health Coverage at the top of the global health agenda*, 2012; Lancet, 2018a) and South Africa seems not there yet.

Public private partnerships were suggested by many as one way the public sector could improve the quality of services. However, very few such partnerships exist. Our findings are supported by recent debates. Global health concerns, private sector involvement and alternative investments in global health were some of the issues debated at this year's world economic forum (*As Davos gathers, the development community struggles for attention*, 2019). We live in a pivotal time (*Because money alone cannot change systems, these billionaires are trying something new*, 2017), achieving sustainable development goals (SDGs) including health for all, will require fundamental changes on the way governments, private and civil society work together (*Because money alone cannot change systems, these billionaires are trying something new*, 2017).

Leadership development was revealed as not producing the required results. Policy development on integrated health care has failed to guide the translation of policy rhetoric into health action due to lack of leadership (Dookie and Singh, 2012b). In support of our findings, current health system contexts have been found to commonly encourage negative leadership practices (Gilson and Agyepong, 2018). Poor leadership impacts negatively on staff motivation and patient care (Gilson and Agyepong, 2018). Leadership after Astana is essential to rejuvenate and revitalize Primary Health Care (Lancet, 2018b). Harnessing innovations in health care is paramount in meeting evolving population needs (Lancet, 2018a). It is critical for health systems in Africa to develop new approaches that produce leaders with exceptional skill, a sense of urgency, an attitude to serve and not be served and a sense of accountability (*africa doesn't need charity it needs good leadership*, 2017; Witter et al., 2019). According to

Tangcharoensathien et al (Tangcharoensathien *et al.*, 2018b), health professionals` education should be transformed to achieve a socially accountable, culturally competent health workforce (Tangcharoensathien *et al.*, 2018b). Rwanda and Cambodia have started moving away from training staff abroad to developing local institutions and capacity for growing leadership (Witter *et al.*, 2019).

Findings indicated that current processes and systems needed to be transformed. Dysfunctional inefficient, ineffective and outdated systems were cited as obstacles to policy implementation. These system challenges including among others communication, district health system, supply chain management, employee development and motivation systems and problem solving have been revealed elsewhere (Dookie and Singh, 2012b). For health care services to be delivered to the desired benefit, systems need to be functional such that health workers are available to those needing service, capable i.e. having knowledge and skills required for that particular service, motivated to provide service and enabled i.e. have the necessary infrastructure, equipment, drugs and other supplies (Johns Hopkins University- Global Health. Bloomberg School of Public Health, 2017).Enhancing health workforce, ensuring equitable access to cost effective medicines and technology, improving health information and health information systems are all essential for the transformation of the health system (WHO, 2017). Lack of power and financial delegations were revealed to be impeding policy implementation from District throughout to facility levels, concurring with research elsewhere (Coovadia *et al.*, 2009). A lack of a supportive environment and managerial capacity in a DHS has been revealed to lead to service fragmentation, increased inequity and political manipulation by the powerful interests (Fusheini and Eyles, 2016). The district health system in South Africa remains poorly structured, unintegrated, characterized by poor resources and weak managerial capacity (Coovadia *et al.*, 2009; Nxumalo, Goudge and Manderson, 2016). A well-functioning District

Health Systems with appropriate power and delegations is critical for UHC and PHC to succeed (Coovadia *et al.*, 2009; Dookie and Singh, 2012b).

A lack of systems thinking was cited by many as an obstacle to seeing the big picture. There is consensus that strong health systems are critical to achieve health for all (Health, no date; Taghreed Adam *et al.*, 2012) but in line with our findings, debates surrounding UHC are rarely tied to those relating to health systems strengthening or other health care delivery priorities on the ground (*Financing universal healthcare coverage [excerpt]*, 2017). This decoupling of UHC and health systems strengthening initiatives (Michel *et al.*, 2018) coupled with varying interpretations of health systems strengthening, remain issues to date (Taghreed Adam *et al.*, 2012; Chee *et al.*, 2013; ‘What does “Strengthening Health Systems” Mean?’, 2016). A transformative process challenges the status quo and tackles the entirety of the service delivery function and system as a complex adaptive system, seeing coordinated/integrated health service delivery as the means and guiding design principle rather than the goal in pursuit of in and of itself (WHO, 2014b). The design of interventions ought to be flexible and responsive to individual needs i.e. the difference between disease specific service provision and people centric models (WHO, 2014b). Transforming health service delivery calls for a systems-lens, (Johns Hopkins University- Global Health. Bloomberg School of Public Health, 2013; WHO, 2014b) further supporting our findings. All health systems struggle to meet health needs with constrained resources particularly in low-income countries (Witter *et al.*, 2019). With finite resources some form of rationing or priority setting is needed in selecting what services to devote resources to and this would ideally be done on the basis of best available evidence (WHO, 2014b). It is important to acknowledge that some modest investments in health systems have been made, but largely chosen, have been shorter term vertical programmes to rapidly address key global issues such as Malaria, polio and HIV/AIDS. Such efforts yielded results but the price has been paid in the lack of investments in general systems strengthening. By

definition, systems are interdependent and all elements need to be addressed (Barbiero, 2014) hence the need to adopt a systems lens. Today`s problems come from yesterday`s solutions (Senge, 1999). A weakness in one part will affect the other parts and consequently the whole system (Senge, 1999)

7.6 Conclusion

The 2008 financial crisis led to hardships and widespread austerity measures in many countries including deep health budget cuts. Consequently, progress towards universal health coverage is variable in and between countries, slow in many and inequalities persist (Lancet, 2018a). According to the former WHO Director General Margaret Chan, UHC is the single most powerful concept that public health has to offer (Rodin and de Ferranti, 2012). Advancement in research have changed the way pain is alleviated, health is restored and life is extended. Service delivery innovations like ehealth, mhealth have brought possibilities of personalized, more affordable and effective health in ways previously unimaginable (WHO, 2014b). There is now consensus that a third great transition seems to be sweeping the globe, changing how health care is financed and how health systems are organized (Rodin and de Ferranti, 2012). The actors in UHC policy implementation in South Africa have identified this need too. Health system transformation (Katuu, 2018) rather than strengthening they say, is needed to make UHC a reality. Universal health coverage is an opportunity but not a guarantee for progress: getting things right now can have big pay offs later, but letting things go wrong initially can be highly problematic and costly (Senge, 1999; Rodin and de Ferranti, 2012). This study suggests some positive ways in which the system could transform in the search for UHC. Who is listening?

Limitations and Strengths

This study took place in one pilot district. Qualitative studies are context specific, findings though transferable may differ from studies done in different contexts (Brugha, 2000). Finally, our study did not cover other national policies being implemented but focused only on those

reforms aimed at achieving Universal Health Coverage. Very few systems are set up for the purpose of documenting and tracking policy implementation and monitoring in low and middle-income countries (LMIC). This was one example of systems in South Africa to track UHC policy implementation, generating real time evidence on why policies fail or succeed without recall bias. We acknowledge this study focused on perceptions of actors working in the health system, to gain their policy implementation experience. The views of patients though important are not represented, making it a limitation. In this paper, we managed to reveal what the actors at the front-line think should be done to reach UHC. Triangulation and comparison of policy views across the different levels of the health system from province, district, subdistrict to facility level provides a balanced view of what these coal face actors think needs to be done for UHC to work.

Declarations

Ethics approval and consent to participate

The study was conducted in full compliance with the principles of « Declaration of Helsinki » (as amended in Tokyo, Venice, Hongkong and South Africa and the laws and regulations of South Africa. UNITAS obtained Full Ethical approval for the study granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF BE197/13. Gatekeepers permission was granted by the KZN Provincial Health Department; REF HRM4/2. A support letter was also obtained from the District Manager. Actors that took part in the study are not defined as a “vulnerable population” and participation did not induce as far as we know, any undue psychological stress or anxiety and anonymity was guaranteed as far as possible. Informed written consent to participate was obtained from all actors who took part in the study.

Consent to publish

Not applicable

Availability of data and material

Data and material from this study cannot be provided publicly due to our ethical obligations to protect anonymity of participants. As stipulated in the participants “informed consent form,” data access is limited to members of UNITAS research team. Data cannot be shared due to this restriction. For further information related to data, please contact the corresponding author.

7.7 Competing interest

We declare no competing interests

Funding

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7.8 Authors contributions

JM, TB, DM were involved in research conceptualization, data collection and initial data analysis. JM and BO were involved in further systematic data analysis. JM, BO, TB, FT, DM, DE and MT were involved in conceptualization of paper, analytic appraisal and write up. All authors approved the final manuscript.

7.9 Acknowledgements

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8. Title: Achieving universal health coverage in sub-Saharan Africa: the role of leadership development

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8.1 Abstract

Countries world-wide are striving towards Universal Health Coverage. Financial resources are extremely limited in developing countries and many developing countries are in the midst of multiple interconnected social, economic, epidemiologic, demographic, technological, institutional, environmental and political transitions. Multiple epidemics are being experienced simultaneously, HIV, TB, Violence, Maternal and Child mortality, NCDs and Ebola to mention but a few. These changes impact on health and well-being, as well as the capacity of health systems to respond. According to the World Health Organisation report (UHC in Africa; A framework for action) accelerating progress towards UHC in Africa will require strong leadership.

At the recent Global Conference on Primary Health Care (PHC), the Astana Declaration, the world recommitted to comprehensive Primary Health Care as a keystone of Universal Health Coverage. There is evidence that PHC works. Countries that followed the Alma Ata PHC principles have demonstrated population health outcomes and reduced inequalities at low costs as seen in Chile, Cuba, Ethiopia and Rwanda. What seems to be missing is leadership to apply and uphold these PHC principles. There seems to be consensus that strong leadership and governance in the health system is key if UHC policy implementation is to succeed. There is also consensus that if Astana is to be realized, strong Political, Economic, Education, Health, Science, Institutional, and Community leaders are needed to make PHC work this time around.

At the same time, Governments and leaders in Africa have been conveying a constant message, that those leading and managing health systems are not sufficiently prepared to succeed in leadership roles they now occupy. Africa has had different leaders with the same results for decades. Leadership development efforts made to date seem not to be producing desired results. Students taken out of Africa to be trained in leadership at Western Universities, seem to go back home and carry on as usual. Many students have been taken to the West for education, developed great visions and ideas of how they can transfer knowledge learnt, got home and got

swallowed by the system. Pumping more money into a health system with no leadership development will not help us achieve Health for All in sub-Saharan Africa. How can accountable leadership with a sense of consciousness for social justice be developed successfully in these contexts? If leadership is key for Universal Health Coverage to be achieved in sub-Saharan Africa, is it not high time attention is paid to leadership development approaches.

8.2 Background

At the recent Global Conference on Primary Health Care (PHC), the Astana Declaration, the world recommitted to comprehensive Primary Health Care as a keystone of Universal Health Coverage (*New global commitment to primary health care for all at Astana conference*, 2018).

The definition of Universal Health Coverage embodies three objectives namely;

1. Equity in access to health services-everyone who needs services should get them, not only those who can pay for them.
2. The quality of health services should be good enough to improve the health of those receiving services.
3. People should be protected against financial risk, meaning ensuring that the cost of using services do not put people at risk of financial harm (McIntyre, Doherty and Ataguba, 2014; *WHO / What is universal coverage?*, 2019).

Since the 1978 Alma- Ata agreement on Health for All, the birth of the idea of Primary Health Care, significant progress has been witnessed with a 50% reduction in mortality of children under five, improved life expectancy and decreased mortality globally (Health Affairs, 2018).

Yet today far too many preventable deaths still occur (Health Affairs, 2018).

- At least half of the world`s population still do not have full coverage of essential health services.

- About 100 million people are still being pushed into extreme poverty because they have to pay for health care out-of-pocket.
- Over 800 million people spent at least 10% of their household budgets to pay for health care.
- One billion people live beyond the reach of a modern health system and do not benefit from public health efforts others take for granted (Health Affairs, 2018).

PHC status in Africa

African countries have continued to occupy the lowest rung of the ladder in the area of primary health care delivery. In spite of the various global efforts, including funds and technical support, healthcare in many African PHC systems have remained deplorable, unattractive, and irresponsible to peoples' needs (Issa and David, 2012; Chimezie, 2015; Agyepong *et al.*, 2017). PHC failed the first-time round in South Africa, because insufficient attention was given to its implementation, resulting in a neglect of taking comprehensive services to communities, disease prevention, health promotion and community participation. Some of the major challenges facing PHC today include inadequate political, financial, human and material commitments, suboptimal use of available resources, challenges in changing management techniques including decentralization and ensuring effective community participation and intersectoral collaboration (Dookie and Singh, 2012c). The majority of health systems in Africa are characterized by poor leadership and management and absence of health promoting amenities making PHC in Africa fail (Chimezie, 2015). Meaningful community participation in PHC has not been achieved to date (Mulumba *et al.*, 2018).

Some specifics missing in the Astana Declaration

The Astana Declaration reconfirms the solidarity of commitment to the right of Health for All enshrined in Alma-Ata declaration, specific actions needed to make this vision a reality are as absent as they were in 1978 (Walraven, 2019). This leaves room for many challenges including a dangerous tilt towards personal health care at the expense of population health and a hands

off approach to governance allowing commercialization of health care to flourish (Walraven, 2019). There is also the danger of a shift towards vertical approaches and an entrenchment of selective primary health care which caused a failure in realisation of the Alma Ata vision (Gillam, 2008).

UHC Financing

Financial resources are extremely limited in developing countries and resources are often poorly distributed among regions urban and rural. Although member states of the African Union agreed to allocate at least 15% of their national budgets to health (2001 Abuja declaration), only five countries in the region have been able to do so including South Africa. Evidence shows that in many developing countries, resources available for health are less than required to deliver the National Minimum Health Care package, leaving households to carry a heavy out-of-pocket expenditure (Chimezie, 2015; *WHO | Out-of-pocket payments, user fees and catastrophic expenditure*, 2019). Community health funds have been proven to be ineffective, donor funding not sustainable and general tax as the most reliable mechanism to finance health. How can this be achieved in the current context of inadequate economic growth, conflicts, migration, unemployment, poor management of public services and not to mention corruption? (Mwije, 2013; Chimezie, 2015; Economic Activities, 2019).

Multiple Epidemics at the backdrop of resource challenges

Noteworthy, many developing countries in sub-Saharan Africa are in the midst of multiple interconnected social, economic, epidemiologic, demographic, technological, institutional, environmental and political transitions. Multiple epidemics are being experienced simultaneously, HIV, TB, Violence, Maternal and Child mortality, NCDs and Ebola to mention but a few (De Cock *et al.*, 2013). These changes impact on health and well-being, as well as the capacity of health systems to respond. Different countries have adopted different paths to UHC (Rao KD, *et al.*, 2014). In many African countries including Algeria, Cameroon, Central Africa Republic, Democratic Republic of Congo, Kenya, Niger, Nigeria, Senegal, Uganda and South

Africa, weak health systems, poor preparedness for health emergencies, poor quality of care and an overall inadequacy of drug supply have been reported as challenges (Africa, 2012). Capacity in planning, management and human resources development remains weak and gaps in human resources for health numbers, skill mix and distribution pose a challenge for effective service delivery (Walraven, 2019). Even in parts of South Africa, like the Western Cape, where when compared with the rest of Africa, better infrastructure exists, greater efforts are required to address the upstream determinants of health which continue to be major challenges (Western Cape Government, 2011).

Leadership gaps in all spheres of the society Political, Economic, Educational, Health, Agriculture

According to the World Health Organization (2000) report, poor organizational structure, bad leadership, insufficient funding, and corruption are among the problems that affect the delivery of health care (WHO / *The world health report 2000 - Health systems: improving performance*, 2000, p. 200; Chimezie, 2015). The effects of poor leadership and inefficient health management greatly affect the manner in which residents have access to the health care they need (WHO / *The world health report 2000 - Health systems: improving performance*, 2000; Chimezie, 2015). This problem is more peculiar in developing African countries (WHO / *The world health report 2000 - Health systems: improving performance*, 2000; Chimezie, 2015; Agyepong *et al.*, 2017). Healthcare leadership means the ability of the managers of the health-care system to look ahead, identify problems, propose solutions, and plan strategies to overcome them (WHO / *The world health report 2000 - Health systems: improving performance*, 2000; Chimezie, 2015). Governments and leaders in Africa have been conveying a constant message, that those leading and managing health systems are not sufficiently prepared to succeed in leadership roles they now occupy (Chimezie, 2015; *Africa doesn't need charity it needs good leadership*, 2017). It is the interplay of power and character that for many has proved to be the

ultimate test of capability and effectiveness in the crucible of leadership-here many fail the test (Motsahi, 2018).

“The most challenging test of my administration as president was the temptation to abuse power.” Nelson Mandela (Motsahi, 2018)

Evidence shows that PHC works

There is evidence that PHC works. Countries that followed the Alma Ata PHC principles have demonstrated population health outcomes and reduced inequalities at low costs as seen in Chile, Cuba, Ethiopia, Nepal, Rwanda and Sri Lanka (Walraven, 2019). What seems to be missing is leadership to apply and uphold the principles. Africa has had different leaders with the same results for decades (Issa and David, 2012; *A lack of leadership in Africa threatens economic progress*, 2013; *Africa doesn't need charity it needs good leadership*, 2017). For the above mentioned challenges to be addressed, the cultivation of leaders with exceptional character, skill and a sense of accountability to communities served is paramount (*Africa doesn't need charity it needs good leadership*, 2017; Walraven, 2019). There is a need to strengthen leadership and governance in the health system if UHC policy implementation is to succeed (*Lucy Gilson: South Africa: learning sites & implementation - Nuffield Department of Medicine*, 2014). Africa needs leadership development systems that produces leaders that are willing to serve and not be served, where occupying a leadership position does not make leaders superior and unaccountable to the people they lead (Issa and David, 2012; Rispel, 2016; *africa doesn't need charity it needs good leadership*, 2017).

Leadership development efforts to date

Context in leadership has been ignored, may be because partly context is difficult to quantify (Royle, 2016). Context matters and it matters a lot (*WHO | The World Health Report - primary Health Care (Now More Than Ever)*, 2008; Bressers, 2009; Royle, 2016; Agyepong *et al.*, 2017). The role of contextual intelligence cannot be overemphasized (Agyepong *et al.*, 2017; Motsahi, 2018). Leadership development efforts made to date seem not to be producing desired

results (Issa and David, 2012; Rispel, 2016; *Africa doesn't need charity it needs good leadership*, 2017), despite leadership being categorised as a critical outcome of training, in for example the health sciences (Chen, 2018). Students taken out of Africa to be trained in leadership at Western Universities, seem to go back home and carry on as usual. Many students have been taken to the West for education, developed great visions and ideas of how they can transfer knowledge learnt, got home and got swallowed by the system (*Africa doesn't need charity it needs good leadership*, 2017). Could that be because of context? One is educated in one context (the West) and expected to function in another (Africa)?

Complexity

It's the conditions in which people are born, grow up, live and work that determine their health (Bloomsbury.com, no date). For these conditions to be conducive, leadership in all sectors of the society; political, economic, housing, labour, agriculture, education, health etc is needed (Issa and David, 2012; *A lack of leadership in Africa threatens economic progress*, 2013). In the face of climate change, dwindling resources, multiple epidemics including cancers, we need leaders who can deal with complexities, involving more variables and whose decisions have far reaching implications. The paradox of our time is that best decisions do not require the fastest speed, but more consciousness (Motsohi, 2018). Many leaders seem to lack in systems thinking. Systems are designed to be self-sustaining. An intervention aimed at changing the system fundamentally needs to be carefully selected for its capability to impact the parts of the system that gives the system its life (Senge, 1999).

8.3 Leadership development is key to achieving UHC

If Astana is to be realized, mass quality education and participatory approaches, that empower people and communities to play an active role in shaping policies, and a whole of government approach beyond ministries of health are needed (*WHO | The World Health Report - primary Health Care (Now More Than Ever)*, 2008; Agyepong *et al.*, 2017; Motsohi, 2018; Walraven, 2019). For this to happen, leadership across all sectors is needed. Incompetence in leadership

in most African countries is not only the problem of people who occupy positions in government, but a reflection of leadership culture (Issa and David, 2012). How can we develop caring leaders with a sense of consciousness for social justice, integrity and character? (Motsohi, 2018). Communities and the whole society should have a responsibility to account. Local leadership development and training could be one chance for us to confront dysfunctional systems in context and that could be the impetus for us to resolve issues facing our health systems and society at large (Issa and David, 2012). Adopting UHC is primarily a political rather than technical issue (Stuckler *et al.*, 2010). The leadership gap seems enormous. Pumping more money into a health system with no leadership development will not help us achieve Health for All in sub-Saharan Africa. According to the WHO 2006 bulletin, poor leadership and inefficient organizational capacity are responsible for ineffective oversight and preponderance of corrupt practices in healthcare delivery (WHO, 2006). If Astana is to be realized, strong Political, Economic, Education, Health, Science, Institutional, and Community leaders are needed to make PHC work this time around (Agyepong *et al.*, 2017; *Countries urged to strive for universal access to good quality health to spur economic growth*, 2018; Walraven, 2019). If leadership is key for Universal Health Coverage to be achieved in sub-Saharan Africa, is it not high time attention is paid to leadership development approaches? How can these leaders be developed successfully? We reckon this as a case for randomized controlled trials (RCTs) (Curry *et al.*, 2012; White, 2013; Wilson *et al.*, 2018) in context, to find out what approaches produce the needed results-accountable leadership with a sense of consciousness for social justice.

8.4 Acknowledgements

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Ethics approval: None. No data was analysed

Funding: None

8.5 Authorship contributions

JM, contributed to the initial concept of paper and wrote the first draft. MID, TJM, TB, FT, DM, MT and DE commented and contributed to subsequent drafts

8.6 Competing Interests

Authors have no competing interests

8.7 Key Messages

Key Message 1

There is evidence that PHC works. Countries that followed the Alma Ata PHC have demonstrated population health outcomes and reduced inequalities at low costs as seen in Chile, Cuba, Ethiopia, Nepal, Rwanda and Sri Lanka. What seems to be missing is leadership.

Key Message 2

Adopting UHC is primarily a political rather than technical issue. The leadership gap seems enormous. Pumping more money into a health system with no leadership development will not help us achieve Health for All in sub-Saharan Africa. If Astana is to be realized, strong Political, Economic, Education, Health, Science, Institutional, and Community leaders are needed to make PHC work this time around. How can these leaders be developed successfully? We reckon this as a case for randomized controlled trials (RCTs) in context, to find out what approaches produce the needed results-accountable leadership with a sense of consciousness for social justice.

9. Title: Why are there varying UHC policy implementation states and outcomes among facilities in the same district? the process and lessons learned from a national health insurance pilot site

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9.1 Abstract

Background: Globally, increasing attention is now being paid to understanding what works for whom and under what circumstances for health interventions to be useful in informing wider implementation. All countries are striving towards universal health coverage (UHC). Reforms are being implemented to ensure no-one is left behind.

Methods: We draw on our experiences of tracking implementation of policies aimed at achieving UHC in one pilot site district in South Africa as part of UNITAS (Universal Coverage in Tanzania and South Africa). We tracked policy implementation aimed at achieving Universal Health Coverage in one pilot district in South Africa from 2011-2015. We wanted to understand why the varying UHC policy implementation states and outcomes among facilities in the same district?

Lessons learned

- To adopt or adapt policy is a process. Actors at the front-line seem to engage with policy, carry out a policy-context audit, try to engage with superiors if there are discrepancies between policy and context and eventually take a decision to adopt or adapt policy.
- Local facility contexts matter and vary. Decision to implement policy is influenced by the conditions on the ground, hence implementation states can vary from one facility to the other despite being in the same district.
- Implementation states range from full policy adoption and implementation, policy adaptation and partial implementation, delayed implementation to non-implementation, when policy is deemed not relevant to context or resources are not available.
- A resource audit before policy is implemented could go a long way in reducing policy-practice gaps.
- Policy implementation states are dynamic. A facility that is policy compliant today may find themselves non-compliant the next day e.g. if a staff member trained to offer a

particular service like anti-retroviral therapy (ART) falls sick or resigns or equipment break down and is not replaced immediately.

Conclusion: There seems to be inherent respect among implementing actors, for the department of health and people above them. They are however concerned with the fact that they are removed from the ground, could have lost touch with realities on the ground, hence the policy directives sent from the top, are often not congruent with ground conditions. Actors revealed how they engage with the policy, assess what they are being asked to do and compare that with the existing resources. To adopt or adapt policy in a UHC context: there seems to be a series of steps actors take.

9.2 Background

Globally, increasing attention is now being paid to understanding what works for whom and under what circumstances for health interventions to be useful in informing wider implementation (Peterson, 2010; Reynolds *et al.*, 2014; Kruk *et al.*, 2016). Volatility, uncertainty, complexity and ambiguous (VUCA) are terms that have been associated with the current climate in all sectors including the economy, and the health system has not been spared (Halamka J., 2011). Health systems in Southern Africa are already strained amid pervasive poverty, meagre human, infrastructural, material and monetary resources (van Rensburg, 2014).

The transition of South Africa to full democracy in 1994 introduced fundamental reforms both in broader society and health system. Primary health care as an approach to deliver health care was initially adopted by the South African government in 1994 (Harrison, 2010). Since then, much has been done to gear up the health system to implement PHC. Nine provincial departments of health have been established out of the fragmented state of pre-1994 South Africa. Racial and gender inequalities in the managerial structures have been largely eliminated. There has been a large investment in infrastructure and building of new clinics and facilities to make health services more accessible. Services have been massively scaled up to deal with the

burden of disease that includes the human immunodeficiency virus (HIV) and associated tuberculosis (TB) epidemic (Harrison, 2010).

In 2011, South Africa decided to pilot National Health Insurance (NHI) and PHC re-engineering embarking on a journey to achieve UHC (Department of Health, 2015). PHC implementation has been fraught with obstacles including failures in leadership and stewardship and weak management that have led to inadequate implementation of what are often good policies (Gilson, 1995; D. Berwick *et al.*, 1997; Leader, 2011; Ellokor S and Gilson L, 2012). According to Harrison (2010) (Harrison, 2010), the district based system was one of the biggest post 1994 innovations making health management more responsive to local conditions and distributing resources more equitably. Success of earlier attempts to implement PHC were hamstrung by the failure to devolve authority fully and the erosion of efficiencies through lack of leadership and low staff morale (Harrison, 2010). For example, infrastructure, staffing and supply chain issues were revealed as challenges in implementing ideal clinic in South Africa (Barroni P. and Padarath A., 2017).

All countries are moving towards UHC. UHC is defined as ensuring that all people obtain the health services they need, of good quality, without suffering financial hardship when paying for them (L Brearly, R Marten, T O'Connell, 2013; McIntyre, 2015). Public policy or government policy is defined as whatever governments choose to do or not to do (Burke *et al.*, 2012). Policy implementation refers to the mechanisms, resources, and relationships that link policies to program action (Hardee K *et al.*, 2012). Many barriers can inhibit policy implementation even when there is widespread agreement about the merits of an intervention (Mangham and Hanson, 2010; Kohl, 2014). The barriers may present themselves at many levels of the system and policy failure can result from bad execution, bad luck, or bad policy. It may also result from too much policy that simply overwhelms those charged with its execution. At times external circumstances may be so adverse that bad luck is identified as the reason for

failure. The policy itself may be defective, in the sense of being based on inadequate information, poor reasoning, or unrealistic assumptions about what is possible with the human and financial resources available (Hunter, Killoran and NHS Health Development Agency, 2004). In low and middle income countries, barriers to implementing policy include complexity of the intervention, lack of consensus; limited human resources, leadership, management and health system capacity; poor application of proven diffusion techniques; lack of engagement of local implementers and of the adopting community and inadequate integration of research into implementation (Yamey, 2012). The South African public health system currently suffers from the implementation gap between sound policy frameworks and the delivery of improvements they seek (Ellokor S and Gilson L, 2012).

9.3 Methods

Research context

We draw on our experiences of tracking implementation of policies aimed at achieving UHC in one pilot site district in South Africa as part of UNITAS (Universal Coverage in Tanzania and South Africa). We tracked policy implementation aimed at achieving UHC in one pilot district in South Africa from 2011-2015.

A qualitative, exploratory case study design utilizing a theory of change (TOC) approach was followed to explore universal health coverage policy implementation experiences. TOC is a theory of how and why initiatives work (Weiss C.H., 1994). TOC is a tool that describes assumptions actors have, explains steps and activities they take to achieve goals and connections between these activities and the policy outcome (Weiss C.H., 1994). Thus, theory of change allowed actors at provincial, district, subdistrict and facility levels to reflect on their assumptions, perceptions and experiences in the implementation of policies aimed at achieving UHC. Qualitative data were collected during three phases: 2011-2012 (Contextual mapping), 2013-2014 (Phase 1) and 2015 (Phase 2). In-depth face to face interviews were held with key informants (n=71) using a theory of change interview guide, adapted for each phase. Key

informants ranged from provincial actors (policy makers) district, subdistrict and PHC facility actors (policy implementers). All interviews were audio-recorded and transcribed. Transcripts were coded with the aid of MAXQDA2018. An iterative, inductive and deductive data analysis approach guided by Contextual Interaction theory was utilized.

Research setting and sampling

Ten pilot districts were identified by the department of health and selected as National Health Insurance (NHI) pilot sites. The national department of health (DoH) selected these sites based on poor performance on key health indicators like high maternal and child mortality rates (Fusheini and Eyles, 2016). UNITAS purposively selected three out the ten selected NHI pilot districts in South Africa. A case study design was used for this research. A case study design is defined as an empirical inquiry that investigates a phenomenon within its real-life context (Press Academia, 2018). This study is situated in only one of the three districts, district X (name withheld for anonymity reasons). The case was the district (X), conveniently selected as the only NHI pilot district in that province at the time. Managerial support and willingness to participate in the study also guided site selection.

Study Aim

The study aimed at tracking NHI policy implementation process through the engagement of policy makers and policy implementers in order to explore, identify and describe why and how policy-practice discrepancies come about in UHC context. Several research questions were explored guided by an interview guide.

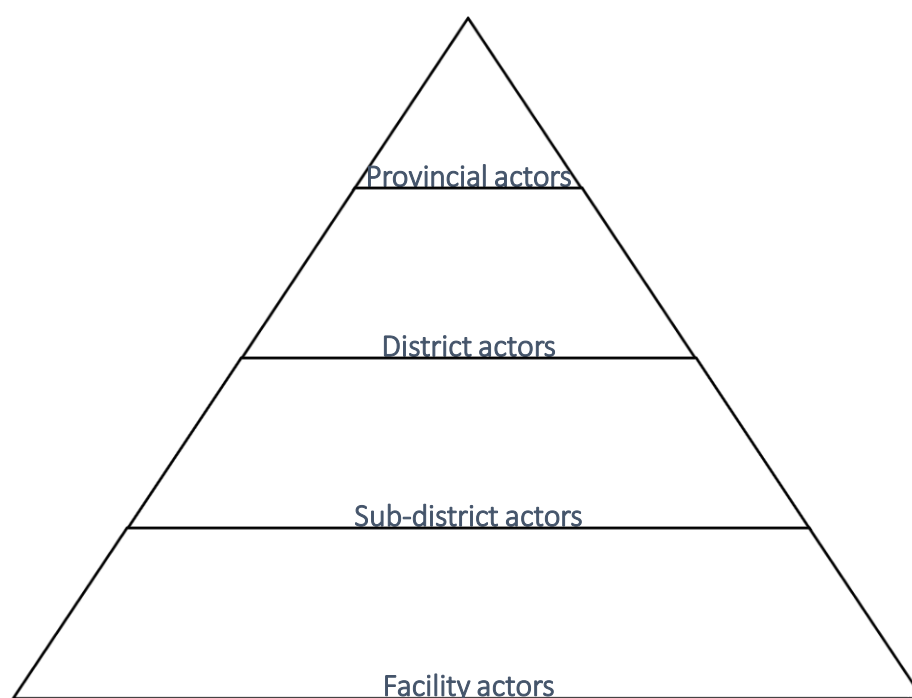
Central Research Question

“How and why do discrepancies between policy and practice come about from your (actors) current policy implementation experience? Identify and describe an instance in the course of duty where you (actor) or colleagues deviated from policy.”

Table 8: Overview of key informants, research phase, role and where they worked (health system level)

Health System Level	Role	Contextual mapping	Round 1	Round 2	Total
Provincial	Policy maker -making sure NHI policies are carried out	1	1	1	3
District	Policy implementers ranging from district manager, programme managers, district clinical specialist team, Emergency rescue service manager and PHC supervisors with policy implementation responsibilities including the PHC supervision manual	1	5	4	10
Subdistrict	Policy implementers at subdistrict level ranging from CEOs managers, nurses and doctors implementing policies aimed at UHC as well as providing direct patient care	3	12	8	23
PHC facility	Policy implementers including operational managers and staff in PHC facilities implementing policies aimed at UHC as well as providing direct patient care	-	19	16	35
Total		5	37	29	71

Figure 15: Level of health system actors represented



Data analysis and measures to ensure trustworthiness

An iterative, inductive and deductive approach guided by CIT theory was utilized. Transcripts were coded with the aid of MAXQDA2018. Trustworthiness criteria were used to evaluate rigour for this study (Forero *et al.*, 2018). Trustworthiness concepts included dependability, credibility, confirmability and transferability. To ensure dependability we described data collection process in detail and two researchers experienced in qualitative methods, kept reflexive individual journals through-out data collection and analysis. Debriefing after interviews was done daily in the field. The two researchers further analysed the data independently before reaching consensus under the supervision of an experienced qualitative researcher. To ensure confirmability findings were discussed with supervisors and co-authors experienced in the field, and their responses were incorporated. To enhance transferability, participants, context and process of analysis have been described in detail (Forero *et al.*, 2018). We achieved data saturation (Saunders *et al.*, 2018) and data source triangulation, through interviewing actors from different levels of the health system

9.4 Results and Discussion

We interpreted these constructs from across our collective experiences and insights from interviews held with actors involved in UHC policy implementation and have categorised these as a set of lessons learned. Each lesson is described below with supportive quotes and examples from the field. Each lesson represents interpretation of experiences across multiple actors. We observed through-out our study that there seems to be inherent respect among implementing actors for the department of health and people above them who have authority. They are however concerned with the fact that they are removed from the ground, often have lost touch with realities on the ground, hence the policy directives sent from the top are not always congruent with ground conditions (Bressers, 2009; Kirton J, and Kickbusch I., 2019). To that effect, the actors revealed how they engage with the policy, assess what they are being asked to do, compare that with the existing resources, personnel, material and infrastructural, and if these allow- a policy context fit is proven, the policy is adopted fully. If on the other hand, a challenge is identified, depending on the resources available- a policy context alignment is done, resulting in adapted policy, delayed implementation or non-implementation. To adopt or adapt policy in a UHC context there seems to be a series of steps actors to take as explained below

9.5 Policy adoption or adaptation: the process

Step 1: Policy context audit: Actors engage with top down policy directives upon receiving them

Facility actors do engage with the policies they receive. They do a policy-context audit in which they assess what the policy is saying, how it should be implemented and then equate that with existing and available resources. When resources and capacity are available, they are motivated to implement policy and did so during the research period.

Step 2: Engagement with supervisors

If on the other hand, they find incongruencies e.g. the infrastructure does not allow or there is a staff shortage, they tried to engage with the superiors and authorities to meet policy requirements. There is however no clear person to contact and negotiate policy adaptation when needed. Front-line actors tried to engage with their primary health care (PHC) supervisors. They wrote motivational letters which were usually futile as they were hardly if at all responded to. Lack of stewardship and leadership has been associated with the poor quality of care delivered in the public sector (Coovadia *et al.*, 2009). The problem of insufficient stewardship and implementation is present in all sectors in South Africa (Nthabiseng Mohlakoana, 2014). These endless motivational letters were for equipment, material or staff that they needed in order to implement dictated policy. Non- response from above in turn affected their motivation. They revealed the following;

“And when we report to our PHC supervisors, they said no they can’t do anything. it is beyond them.” -facility actor round 2

“The shortage of staff is beyond our operational manager and PHC supervisor’s control. Sometimes, our manager motivates for posts and they say there is no money. That is the problem.” -facility actor round 1

Some initiatives like the one register that was meant to streamline more than 17 registers the clinics had to contend with, were communicated to implementing actors as coming but never saw the light of day during the research period. Frontline actors are often not updated.

“That one register. It was supposed to have been implemented I think three months ago. But it never started, excuse me, never happened and our bosses never communicated.” - subdistrict actor round 2

“And I do not know what is delaying the process of replacing the staff that is gone. I communicate with the PHC supervisor and I plead with him to please come so that he can see what I am talking about but he has not come.” -facility actor round 2

Step 3: Decision making and implementation states

Depending on the outcome of policy-context audit, engagement with supervisors, actors are then left to take a decision. According to Lipsky 1980 (Lipsky, M, 1980) implementing actors implement policies according to what they think is best. This is not a result of defying authority or going against the rules set by those at the top, instead it is a way in which actors at the bottom cope with the implementation of policies that are otherwise out of their scope because of the way they are planned. According to Bressers, implementation can be differentiated whether the implementation is adequate to satisfy policy aims (Bressers Hans., 2004). Decisions taken can be any of the following;

Potential Outcome 1: Full policy adoption and implementation

One policy initiative being implemented is the ideal clinic, which recommends patients to be seen in three streams, namely chronic illness, maternal, new born, child and women`s health and minor ailments. Facilities that got new NHI buildings and the needed staff, implemented this approach and were very happy with results as revealed below;

“We got more staff last year and a new NHI building. yes, from last year and you can see patients don` t wait too long anymore. So, we could implement the three streams approach and the waiting times have improved greatly.” -facility actor round 2

Potential Outcome 2: Policy adaptation and Partial implementation

Some of the facilities revealed how they adapted policy to meet the situation on the ground. For example, a three-stream approach requires at least 3 PHC nurses and some facilities only had two and so had to combined some streams, adapting policy as revealed below

“At the moment, we are not fully implementing those, but because, personally, I didn’t have staff. There are only two Sisters, and the streams approach needs three or four Sisters to cater for leave and absences.” -facility actor round 1

Potential Outcome 3: Delayed implementation

The three streams policy was viewed by all facility actors as good and relevant. The staff and infrastructural challenges led to different implementation outcomes based on each facility context. Many decided to delay the implementation until a conducive time as revealed below

“Staffing. We have very few staff. Right, because if they want this three-stream program kind of thing, we need about three registered nurses, each per program. We only have got one registered nurse. I cannot implement that.” -facility actor round 1

“The structure of the clinic does not allow. According to ideal clinic the way we do things needs to change to make three streams; children to be in one area and the chronic patients to be in another area and so on. Then when we looked at the structure of the clinic, it does not allow for that, but we were told to do those things but unfortunately, we cannot implement them.” -facility actor round 2

“The policy says there should be an integration whereby all the chronic patients should be treated under one roof-not discriminating especially the clients that are for ARV’s, and TB’s. You know the communicable and non-communicable diseases. To be honest to you for us right now we are not implementing that because of the infrastructural challenge.” -facility actor round 2

“At the moment, we are not fully implementing those, but because, personally, I didn’t have staff. There are only two Sisters, and the streams need three or four Sisters.” -facility actor round 1

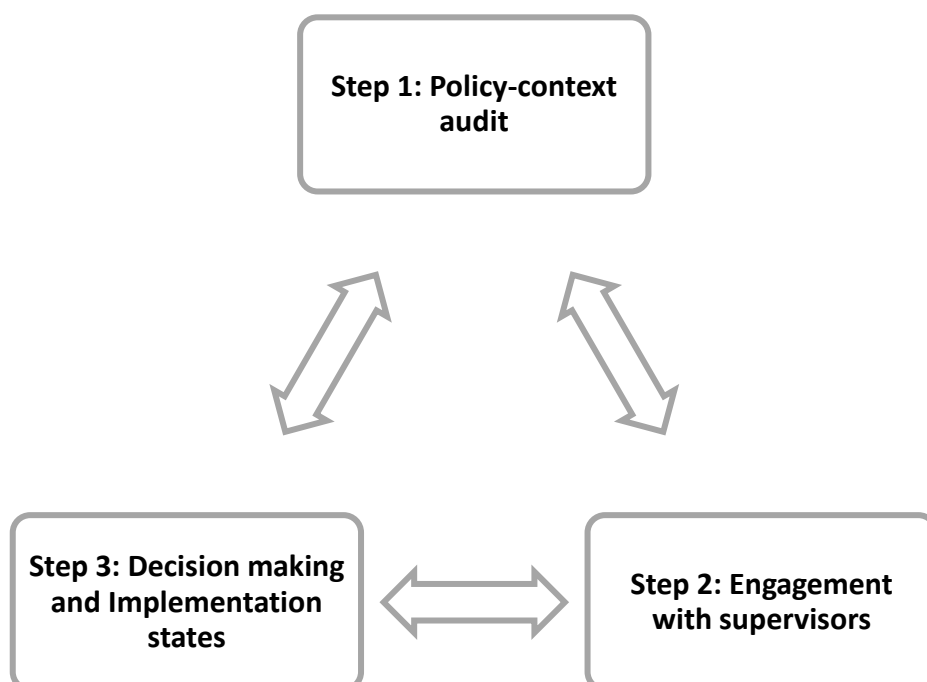
“But we have not started because when we were about to start or initiate that particular program (Medipost), we identified lots of things that need to be in place before we could start on that particular day. First of all, the data capturer, because we are supposed to capture data every day then file all those things and we found that we do not have filing cabinets.” -facility actor round 2

Potential outcome 4: Non-implementation

Some facility actors, after policy-context audit concluded that there was a policy context misfit or irrelevance- and did not even bother to implement the policy-saw it as does not work here and never got started at all (Bressers Hans., 2004, p. 200) as revealed below;

“Especially with that one stop shop they are proposing, I am saying that one stop shop is not going to function at all. Not with us, maybe somewhere it will work... because you can't keep all these registers here. You can't see an antenatal care (ANC) client after seeing a TB client, after seeing a prevention of mother to child transmission (PMTCT) client. The queue will just stand.” -facility actor round 1

Figure 16: Diagrammatic summary of the process



Dynamic states of policy implementation

Actors also revealed that policy implementation is not static but a dynamic process. An institution can be policy compliant one day and may find themselves non-compliant the next day e.g. if a staff member trained to offer a particular service like ART falls sick or resigns. According to Kotzebue the place affects motivation, perception and capacities of implementing actors and the outcomes of implementation processes. During implementation characteristics of the place can change affecting implementation (Kotzebue, 2012). Another dynamic state is transition. Actors found themselves in a state we termed transition state, when the old policy or way of doing things has not really been phased out and the new has not taken root. Such transition states need to be planned for.

“The infection control practitioners with the initial lot do training when they come into our facility, they train the staff but when there is staff movement and resignations, we lose the trained staff. So, if you are getting two new staff every day you do not expect us to go and train two new people every day.” -subdistrict actor round 2

“The change that has come with NHI in this facility is that when I came here there was no pharmacy assistant. Now there is pharmacy assistant who orders the medication. But also, we only have one, now she is gone for maternity leave and there is nobody relieving her. We are now back to having a nurse to fit in her place. She does not have a relief; the duties fall back onto the nurses. So, okay it is implemented but it is not fully implemented.”

-facility actor round 2

Gap-Who to contact after policy-context audit?

The absence of a clear person at district level to engage with when the actors find a policy-context misfit, a discrepancy between policy demands and the resource realities on the ground is fuelling policy-practice gaps. PHC supervisors are contacted but they often lack power and

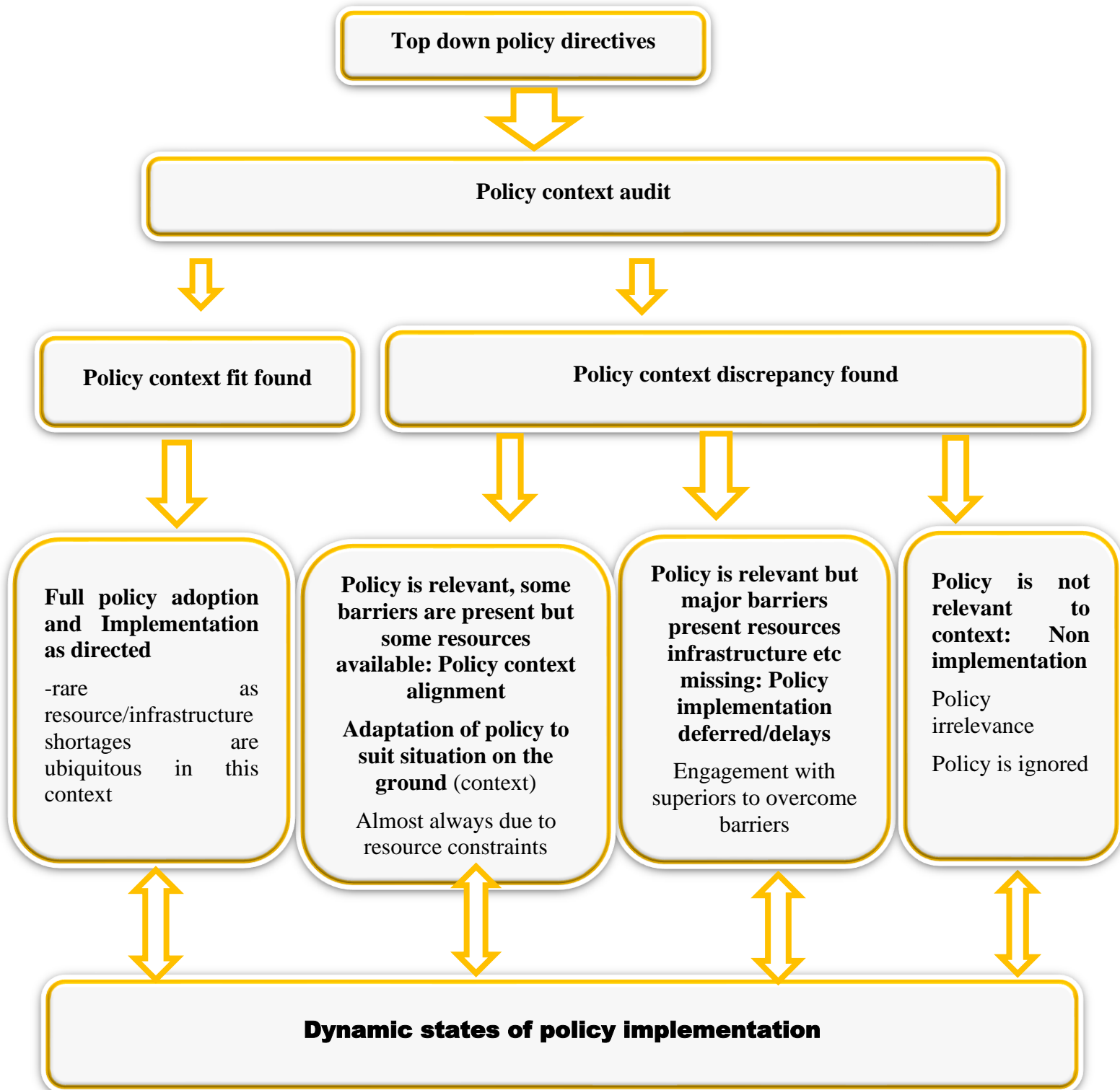
authority to solve problems. Attempts to get help yields nothing as they are often met with non-responsiveness. It is this interaction process that we found critical to policy implementation in our study. This non-responsiveness accompanied by policing supervision creates another set of responses from frontline actors further fuelling policy practice gap above and beyond the resources, process and system challenges. The actors revealed how in such cases they are then forced to delay or adapt policy implementation

“They have prescribed, they say you may not do open reductions and fixations and that because it is not in the district package of service. But every second patient that comes out of a car crash needs that. So that has an impact on us as we do not get funds for that but it has to be done, because I can see the need.” -subdistrict actor round 2

“We are told to improve our figures (statistics), go out to the community and tell them about circumcision....because we are short staffed as it is, one of the sisters resigned and, she’s still not replaced and then Sister ... our operational manager passed away, so that means we are two professional nurses less in the team. Go to the community and tell them about circumcision when we short staffed, who is going to stay here and run the clinic when we go out? You see that’s a problem?” -facility actor round 2

“Because it is not easy to implement all these new things-the new programs if we have got limited resources. Medipost... we are supposed to be implementing these pick-up points in the community. All of us realise that it is going to be of use to us because it is going to decongest the clinic, but at times we do not know how we are to implement it without a vehicle.” -facility actor round 2

Figure 17: How implementing actors proceed and why the varying implementation states in facilities



9.6 Lessons learned

- To adopt or adapt policy is a process. Actors at the frontline seem to engage with policy, carry out a policy-context audit, try to engage with superiors if there are discrepancies between policy and context and eventually take a decision to adopt or adapt policy
- Local context matters and varies. Decision to implement policy is influenced by the conditions on the ground (Yamey, 2012); hence this can vary from one facility to the other despite being in the same district.
- Implementation states range from full policy adoption and implementation, to policy adaptation and partial implementation, delayed implementation or non-implementation when policy is deemed not relevant to context or resources are not available.
- A resource audit before policy is implemented could go a long way in reducing policy-practice gaps.
- Policy implementation states are dynamic. A facility that is policy compliant today may find themselves non-compliant the next day e.g. if a staff member trained to offer a particular service like ART falls sick or resigns or equipment break down and is not replaced immediately.

9.7 Conclusion

Ideally policy implementers should be involved in policy development to ensure buy in and policy relevance. Actors revealed that NHI policies were developed at the top and communicated to the frontline. In line with our findings top down approaches have been found to inhibit ownership and not reflect local contexts (Gautier and Ridde, 2017; Kirton J, and Kickbusch I., 2019). Our engagement with both policy makers (province level) and policy implementers revealed that the process to adopt or adapt policy, seems to be complicated (Hudson, Hunter and Peckham, 2019) among others by a structural gap. There seems to be a no identified official or office to contact, in the event actors at the frontline have challenges with policy or see a policy-context misfit. Policy makers seem to assume that when policies

are communicated down to the implementing actors, the actors immediately understand, know what to do and that conditions are conducive (Sabatier, P.A., 1986; Anderson, 2017). This was revealed not to be the case; hence we recommend having such a transitional authority or office to smoothen policy implementation.

Our engagement also revealed that compliance with policy implementation is dynamic concurring with findings elsewhere (Kotzebue, 2012). Being compliant at one stage does not guarantee continued compliance for example, the training of cleaning staff in infection control principles is subject to change the moment the staff resigns or the three-stream approach is only manageable as long as the clinic has at least three PHC nurses. The moment one staff member goes on leave or falls sick, the facility actors are immediately forced to adapt policy. Planning for staff leave and relief of special cadres and staff categories particularly the new cadres, pharmacy assistants could go a long way in ensuring facilities remain compliant. Policy implementation takes time (Hudson, Hunter and Peckham, 2019). Between the point of policy communication and full compliance, many issues may arise and patient care has to continue either way. Acknowledging and planning for transition states could ensure positive patient outcomes. The same authority that attends to policy-context challenges could be tasked with assisting facilities deal with transition states like staff establishments dictated from above despite the patient needs on the ground.

Limitations and strengths

Methodologically theory of change allowed us to explore the implementing experiences of both policy makers and policy implementers giving us a broader picture of how change happens in a UHC context. We also got to engage with actors at different levels of the health system giving us an opportunity to triangulate and get a rounded picture. The study being qualitative in nature means that our findings though transferable, might not reflect what happens in other contexts.

9.8 Key messages

Key message 1: Policy implementation takes time. Between the point of policy communication and full compliance, many issues may arise and patient care has to continue either way. Acknowledging and planning for transition states could ensure positive patient outcomes.

Key message 2: Policy implementation is dynamic. Being compliant at one stage does not guarantee continued compliance for example, the training of cleaning staff in infection control principles is subject to change the moment the staff resigns

Key message 3: Local context matters and varies. Decision to implement policy is influenced by the conditions on the ground; hence this can vary from one facility to the other despite being in the same district. A resource audit before policy is implemented could go a long way in reducing policy-practice gaps.

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Ethics approval: The study was conducted in full compliance with the principles of « Declaration of Helsinki » (as amended in Tokyo, Venice, Hongkong and South Africa and the laws and regulations of South Africa. UNITAS obtained Full Ethical approval for the study granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF

BE197/13. Gatekeepers permission was granted by the KZN Provincial Health Department; REF HRM4/2. A support letter was also obtained from the District Manager. In addition, informed written consent was obtained from actors who took part in the study.

9.10 Competing interest

We declare no competing interests

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9.11 Authorship contributions

JM, contributed to the initial concept of paper and wrote the first draft. NM, TB, FT, DM, HTAB, MT and DE commented and contributed to subsequent drafts

Availability of data and material: Data and material from this study cannot be provided publicly due to our ethical obligations to protect anonymity of participants. As stipulated in the participants “informed consent form,” data access is limited to members of UNITAS research team. Data cannot be shared due to this restriction. For further information related to data, please contact the corresponding author.

10. A comparative analysis of how actors implement: Testing the Contextual Interaction Theory in a UHC pilot district South Africa

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10.1 Abstract

This paper applies a two-actor deductive theory of implementation *Contextual Interaction theory (CIT) to analyse 71 key informant interviews from one NHI pilot district in South Africa. The theory uses motivation, information, power, resources and the interaction of these to explain implementation experiences and outcomes. The research question centres on the utility of CIT tenets in explaining the observed implementation experiences of actors and policy outcomes. All CIT central tenets were alluded to by actors in their policy implementation experiences. A central tenet that was present in this context but not fully captured by CIT was leadership.

10.2 Introduction

Empirical research discloses implementation as a significant impediment to change (Pressman, Jeffrey L and Wildavsky, Aaron, 1973; Owens, 2008). This paper contributes to implementation studies by testing an analysis tool, the Contextual Interaction theory. The theory evaluates the policy implementation experiences of 71 actors involved in UHC policy implementation in one South African pilot district using the CIT lens.

South Africa is the focus of this study because the South African government began piloting policies aimed at achieving UHC in 2012. Policies aimed at achieving UHC have been and are being rolled out in the selected 10 pilot districts. World-wide, there is growing UHC enthusiasm at global and national levels (Fusheini and Eyles, 2016). Almost everyone world-wide believes that no-one should be pushed into poverty for accessing health care. Many also believe in a world in which everyone can live healthy productive lives regardless of who they are or where they live. This outcome will depend to a great extent on how UHC policies are and will be implemented. For example, the South African Ministry of health's role in providing guidance has been characterized by good policies without equivalent emphasis on implementation, monitoring and assessment of these policies through-out the system (Coovadia *et al.*, 2009). When filtering public policy through the circumstance of reality, it is important to bear in mind

that intention may not correspond with outputs and outcomes (Owens, 2008). In 2017, the South African NHI pilot phase, health systems strengthening came to an end, though health strengthening initiatives and improvements of service delivery platforms continue to be implemented (Department of Health, 2015). Many lessons have been learnt during the past five years including implementation bottlenecks such as supply chain, infrastructural and resource challenges and underspending of conditional grants (*NHI Pilot Phase progress; Health Conditional Grants: report by Minister of Health / PMG*, 2014; Fusheini and Eyles, 2016). In addition, there is a call that it is essential that once data and information from pilot districts becomes available, should be fully utilized, evaluated and results be published to allow for government and public engagement with the process and accountability (Section 27, 2013).

Defining Implementation

To understand implementation, it is important to define the concept as used in the scope of this study. Pressman and Wildavsky (Pressman, Jeffrey L and Wildavsky, Aaron, 1973) defined implementation as to carry out, accomplish, fulfil, produce, complete a policy. Mazmanian and Sabatier (Mazmanian, D.A. and Sabatier, P.A., no date) define implementation as the carrying out of a basic policy decision. O'Toole (11) defines implementation as what develops between establishment of an apparent intention on the part of government to do something or to stop doing something and the ultimate impact in the world of action. For the purpose of this study we define policy as translating public policy intention into results (Owens, 2008).

Policy implementation is a complex process incumbent upon a number of factors. It is important not only to understand why policies succeed but also why they fail. Many scholars find it useful to treat implementation as a distinctive point for analysis within the policy process with an ability to shed light on the whole (Pressman, Jeffrey L and Wildavsky, Aaron, 1973; Hill and Hupe, 2002; Bressers Hans., 2004). Three generations of implementation theories shape the policy implementation field. The first generation, illustrated by the work of Pressman and

Wildavsky is also known as top-down. Researchers analysed the implementation of a regional employment programme and came to the conclusion that amongst other things, implementation failed due to poor policy planning. This generation assumed that implementation happens as a pure application of earlier decisions and consisted of solitary case studies featuring negative reports of the way governments implement their own programmes (Owens, 2008). Policy making was assumed to be automatically followed by successful policy (Pressman, Jeffrey L and Wildavsky, Aaron, 1973). This generation of theories is also likened to what Elmore (Elmore, 1985) describes as forward mapping. Forward mapping assumes that implementation is controlled from the top and stresses factors that emphasize control such as funding formulas and authority relationships. The closer one is to the source of policy, the greater their influence and authority (Elmore, 1985). According to Goggin et al (Goggin, M.L., Lester, J.P. and O'Toole, L.J., Jr, 1990), the first-generation studies have been criticized for being a theoretical, case specific and noncumulative and overly pessimistic. They however have been valuable in shifting the focus and showing how a law becomes a programme and demonstrating the complex and dynamic nature of implementation among others (Goggin, M.L., Lester, J.P. and O'Toole, L.J., Jr, 1990).

The second generation theories, according to Sabatier (Sabatier, P.A., 1986) started in the late 1970s to early 1980s, where the bottom uppers started with an analysis of the multitude of actors who interact at an operational (local) level on a particular issues. The focus was on strategies pursued by various actors with the aim of fulfilling their objectives. Efforts were focused on setting out to record and illustrate the complexities of implementation and to show that just because a policy exists, does not guarantee that it will be implemented (Sabatier, P.A., 1986). The bottom up approach emphasizes the role of the smallest actor in the implementation process all the way to the top (Elmore, 1979). Lipsky work on Street Level Bureaucrats (Lipsky, M, 1980) is one bottom up example. The study illustrates how civil servants at lower levels

implement policies according to what they think is best and not according to directives. This is not a result of defying authority or going against rules set by those at the top, but it is a way in which actors at the bottom cope with implementation of policies that are otherwise out of their scope because of the way they are planned (Lipsky, M, 1980). Walker and Gilson used the street level bureaucrat's framework in South Africa, investigating, "how a group of nurses in primary care clinics experienced the implementation of free care and other South African national health policies post 1996." They too, came to a conclusion that, civil servants faced with policy implementation use their discretion based on their views and values (Walker and Gilson, 2004). After years of debate between proponents of top down and bottom up approaches, most researchers concede the merits of both perspectives with several scholars recommending a synthesis of the two into a unifying model (Goggin, M.L., Lester, J.P. and O'Toole, L.J., Jr, 1990; Bressers Hans., 2004).

Van Meter and Van Horn (Van Meter, D. and Van Horn, C.E., 1975) highlight the systems model of implementation" in which they show that there is more to what influences the performance of a programme or a policy than separate factors. The separate factors include policy standards, resources, support for policies in a political environment, economic and social conditions, characteristics of implementing agencies, communication of policy standards incentives to promote compliance and policy dispositions of implementing officials. These factors highlight the importance of context in policy implementation process leading us to the third generation of implementation research and how it combines both top down and bottom up approaches. The third-generation implementation researchers see implementation as an ongoing process, regardless of result (Nthabiseng Mohlakoana, 2014). Goggin et al (Goggin, M.L., Lester, J.P. and O'Toole, L.J., Jr, 1990) promote a third generation of research to illuminate the variability within implementation scenarios using more stringent scientific methods. Ad-hoc explanations do not capture the essence of why policy implementation fails,

are often incomplete and insufficient in telling and explaining the whole story (Bressers Hans., 2004) Implementation theory and research have outgrown the search for a single theory of implementation and have entered a new era that recognizes multiple theories appropriate to various implementation research questions (Mischen, 2006).

Justification of Contextual Interaction Theory

Contextual Interaction Theory (CIT) is a third generation theory (Goggin, M.L., Lester, J.P. and O'Toole, L.J., Jr, 1990) developed in the Netherlands during the late 1990s and has been applied in several studies (Owens, 2008; Spratt, 2009) but not widely used in the health policy domain. CIT is relatively simple, with broad applicability as it analyses the very core of implementation: the motivation, information, resources and power of target and implementer. CIT emphasizes the policy target and implementer, whether they exist as local implementers or higher-level administrators. A useful theory must condense reality into less detailed but informative elements (Owens, 2008)

Scharpf (Scharpf, F.W, 1997) writes that overly parsimonious theories ignore either actors or institutions in pursuit of the other. CIT is parsimonious, distilling a sea of options for implementation variables into core variables of motivation, information, resources and power. These variable are not arbitrarily chosen as three important variables among others but because they have high explanatory power and exist at the core of interaction process (Bressers Hans., 2004; Owens, 2008). CIT is therefore a deductive and realistic approach that allows implementation to be effectively analysed (Owens, 2008)

Description of CIT

The theory focuses on motivation, information, power, resources and interactions of these. CIT also allows this study to focus not only on CIT variables but also context, structural and outer. CIT has been used in the South African context before (Nthabiseng Mohlakoana, 2014). Applying CIT to analyse UHC policy implementation is a new domain. Based on the amount of information the actors have on policy, their level of motivation, the amount of resources they

have to implement and the amount of power they have to mobilize needed resources and various interactions of these, a policy can be successfully implemented. In this study we analysed how much Information, Motivation, Power, and Resources they had with regards to UHC policies they were tasked to implement. We also analysed the data inductively.

One of CIT's key assumption is that factors influencing implementation are interactive. The influence of any factor whether positive or negative depends on the particular context. The theory distinguishes a set of core constructs or concepts related to the actors involved which jointly contribute to implementation. Core constructs are;

Motivation: The level of importance the actors place on a policy and the degree to which policy contributes to their goals and objectives affects implementation. If actors have low motivation, they may ignore implementing the policy. Examining motivation helps to understand the perspectives of implementers, their belief system, value priorities and perception of the importance and magnitude of specific problems often revealing root causes of implementation barriers (Spratt, 2009).

Information: Successful policy implementation requires that those involved have sufficient information including technical knowledge of the matter at hand, levels and patterns of communication between actors. For example, do those responsible for implementation actually know with whom they should be working and who the policy should benefit? Do they know which department is assigned to lead the implementation and how the programme will be monitored? How is information and communication between actors coordinated? Have guidelines been developed and are they readily available ? (Bressers Hans., 2004; Spratt, 2009).

Power: Who is empowered to implement policy and to what degree? Power may derive from formal sources such as a legal system e.g. appointment or from informal sources such as charisma or being an elderly.

Resources: Having adequate resources for the intended action is important for actors to realize policy implementation goals. Resources provide the capacity to act (Oboirien *et al.*, 2018). The relevance and availability of resources influence the actors motivation which in turn influences the whole policy implementation process (de Boer and Bressers, 2011).

Interactions: interactions predict the level of collaboration among and between actors which in turn influence policy implementation. They must be considered to further analyze barriers to implementation. These interactions can take different forms from cooperation, passive cooperation, forced cooperation, opposition or joint learning. In turn actors collaboration depends on how they perceive the problem being addressed as a priority, how convinced they are that there is an acceptable solution, that taking action now is in own best interest and if they have implementing capacity (Bressers Hans., 2004; Spratt, 2009). Specifying the above constructs facilitates the development of tools to measure the level at which each of the core construct contributes or hinders implementation (Spratt, 2009). These central CIT tenets guided our analysis and interpretation of findings in this study.

10.3 Methodology

Study Aim

The study aimed at tracking NHI policy implementation process through the engagement of policy makers and policy implementers in order to explore, identify and describe why and how policy-practice discrepancies come about in UHC context.

Research setting and sampling

Ten pilot districts were identified by the Department of Health and selected as National Health Insurance (NHI) pilot sites. The National Department of Health (DoH) selected these sites based on poor performance on key health indicators like high maternal and child mortality rates (Fusheini and Eyles, 2016). UNITAS purposively selected three out the ten selected NHI pilot districts in South Africa. A case study design was used for this research. A case study design is defined as an empirical inquiry that investigates a phenomenon within its real-life context (Press

Academia, 2018). This study is situated in only one of the three districts, district X (name withheld for anonymity reasons). The case was the district (X), conveniently selected as the only NHI pilot district in that province at the time. Managerial support and willingness to participate in the study also guided site selection.

Research participants

Table 9: Overview of key informants, research phase, role and where they worked (health system level)

Health System Level	Role	Contextual mapping	Round 1	Round 2	Total
Provincial	Policy maker -making sure NHI policies are carried out	1	1	1	3
District	Policy implementers ranging from district manager, programme managers, district clinical specialist team, Emergency rescue service manager and PHC supervisors with policy implementation responsibilities including the PHC supervision manual	1	5	4	10
Subdistrict	Policy implementers at subdistrict level ranging from CEOs managers, nurses and doctors implementing policies aimed at UHC as well as providing direct patient care	3	12	8	23
PHC facility	Policy implementers including operational managers and staff in PHC facilities implementing policies aimed at UHC as well as providing direct patient care	-	19	16	35
Total		5	37	29	71

Study design and data collection

A qualitative, exploratory case study design was utilized. We tracked policy implementation aimed at achieving Universal Health Coverage in one pilot district in South Africa from 2011-2015. Data was collected during three phases 2011-2012 (Contextual mapping), 2013-2014 (Phase 1) and 2015 (Phase 2). A theory of change (TOC) approach was followed to explore universal health coverage policy implementation experiences. TOC is a theory of how and why initiatives work (Weiss C.H., 1994). Theory of change describes assumptions actors have, explains steps and activities they take to achieve goals and connections between these activities and the policy outcome (Weiss C.H., 1994). Semi-structured in-depth interviews were held with participants using a standard interview guide. Participants ranged from provincial, district, sub-district and facility actors involved in policy implementation. No patients were involved since their role in policy implementation is limited. The duration of each interview varied from 2-3 hours. Two researchers at every occasion, conducted the interviews in English. All participants were qualified professionals who had no problems understanding or responding in English. Full Ethical approval for the study was granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee; REF BE197/13. Support letters were also provided by the provincial and district offices in our study site.

Data analysis

All interviews were audio-recorded. All participants gave informed and signed consent and were free to withdraw from the study at any time. An iterative, inductive and deductive data analysis approach guided by Contextual Interaction theory was utilized. Transcripts were coded with the aid of MAXQDA2018. Trustworthiness criteria were used to evaluate rigour for this study (Forero *et al.*, 2018). Trustworthiness concepts included dependability, credibility, confirmability and transferability. To ensure dependability we described data collection process in detail and two researchers experienced in qualitative methods, kept reflexive individual journals through-out data collection and analysis. Debriefing after interviews was done daily in

the field. The two researchers further analysed the data independently before reaching consensus under the supervision of an experienced qualitative researcher. To ensure confirmability findings were discussed with supervisors and co-authors experienced in the field, and their responses were incorporated. To enhance transferability, participants, context and process of analysis have been described in detail(Forero *et al.*, 2018). We achieved data saturation (Saunders *et al.*, 2018) and data source triangulation, through interviewing actors from different levels of the health system.

This paper applied a two actor CIT theory to analyse 71 interviews from a South African NHI pilot site. This paper`s contributes to implementation studies through the testing of the contextual interaction theory. The study aims to depict how actor characteristics (Information, Power, Motivation) influence UHC policy implementation process in one pilot district in South Africa. To a certain extend the study combines first generation and third generations of research approaches. The first generation is illustrated by identifying policy-practice gaps as a result of top down UHC policies. The second generation by initiatives and decisions taken by the frontline actors. The third generation of implementation research is illustrated by using CIT factors to understand how the policy-practice gap comes about. We also expand the theory by adding one more core variable: Leadership to information, motivation, resources and power. Leadership Interaction is defined as an occasion when two or more people communicate with or react to each other (Sinclair J.M, 1998) particularly between senior and junior actors including supervisor-supervisee relationships

Justification of two actor scenario

It is worth mentioning that a multi -actor scenario in health policy evaluation is possible and appropriately suitable in cases of assessing successful policy implementation, involving policy maker, policy implementer, partners and target actors in this case patients. The focus of our study was to understand how policy-practice gaps come about, hence our focus is on two actors, policy maker and policy implementer instead. We therefore tested the viability of a two-actor

model-policy makers at provincial level and policy implementers (district, subdistrict, facility actors)

Table 10: Actor description: In a UHC pilot site the following actors are present (Nthabiseng Mohlakoana, 2014)

Policy Maker Actors	Linking actor	Implementing actors	Target actors
National DOH Provincial DOH	NGOs providing training	District, subdistrict and PHC staff	Patients and communities

Study actors

The focus of our study was to understand policy practice gap hence our two actors are policy maker and policy implementer leaving out linking and target actors as they did not play an active role in UHC policy implementation.

Table 11: Study actors

Policy Maker Actors	Implementing actors
National DOH Provincial DOH	District Managers and District staff Subdistrict managers and staff PHC facility staff

10.4 Findings

Detailed findings of study were published in paper 2 and 3 and it is beyond the scope of this paper to present them here. A summary of findings from the overall study with regards to CIT tenets are presented below;

Table 12: Summary of Findings

Core CIT construct	Policy maker	Implementer
Information	Fully informed and aware of NHI policies and intended benefits +++	District and senior staff aware but many frontline actors have little understanding of their roles -----
Resources	Some actors had access to budgets +	District, subdistrict and facility staff cited lack of human, material and infrastructural resources to fully implement policies. -----
Motivation	Some actors were new appointees to drive the NHI policy implementation and were generally motivated	District and subdistrict actors were demotivated by dysfunctional systems particularly supply chain. Facility staff were demotivated due to lack of resources, dysfunctional systems including employee performance and management systems and lack of support from above Facility staff were demotivated due to being caught in between with pressure from both patients and supervisors Facility actors were demotivated due to longstanding problems that do not get resolved -----
Power	Some actors had access to budgets and power to appoint personnel	District, subdistrict and facility staff all cited no power to appoint staff

	Other functions are only advisory in nature e.g. NHI project Manager	<p>Facility actors have no access to budgets</p> <p>District and subdistrict Managers cited having limited power and financial delegations</p> <p>According to Elmore funding affects implementation (Elmore, 1985)</p> <p>-----</p>
	+	-----
Interactions	Actors were housed in one building and had regular meetings though many posts vacant	<p>PHC supervision not frequent enough</p> <p>PHC supervisor not able to solve facility challenges.</p> <p>PHC supervision seen as policing and not supportive</p> <p>National core standards failing facility staff for issues beyond their control</p> <p>According to Elmore , authority relationships affect implementation (Elmore, 1985)</p> <p>-----</p>
	+	-----

-----negative
+present
++ high levels
+++ very high levels

Figure 18: Policy Implementer CIT tenets

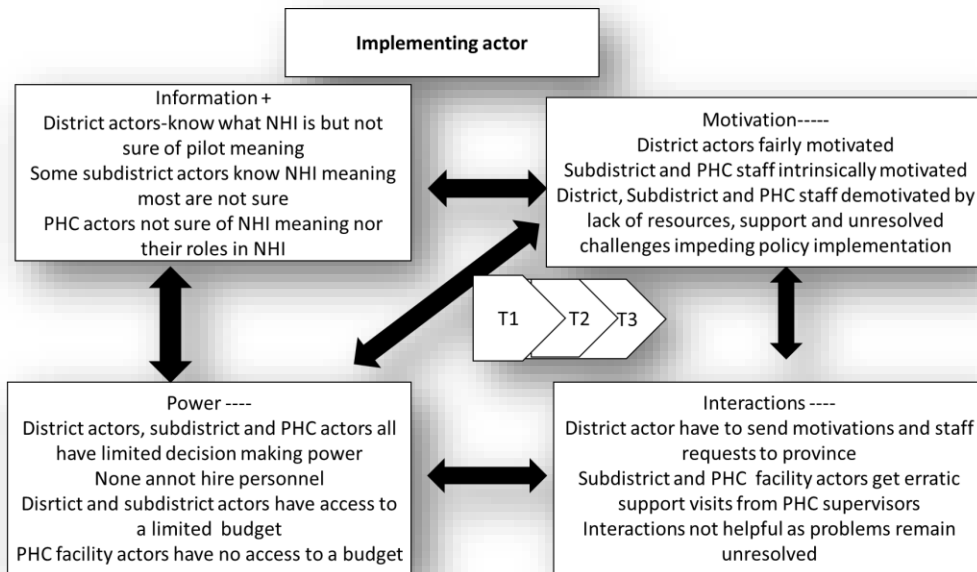


Figure 19: Interaction process

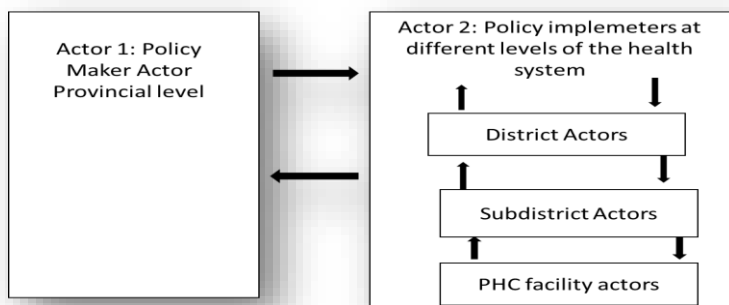
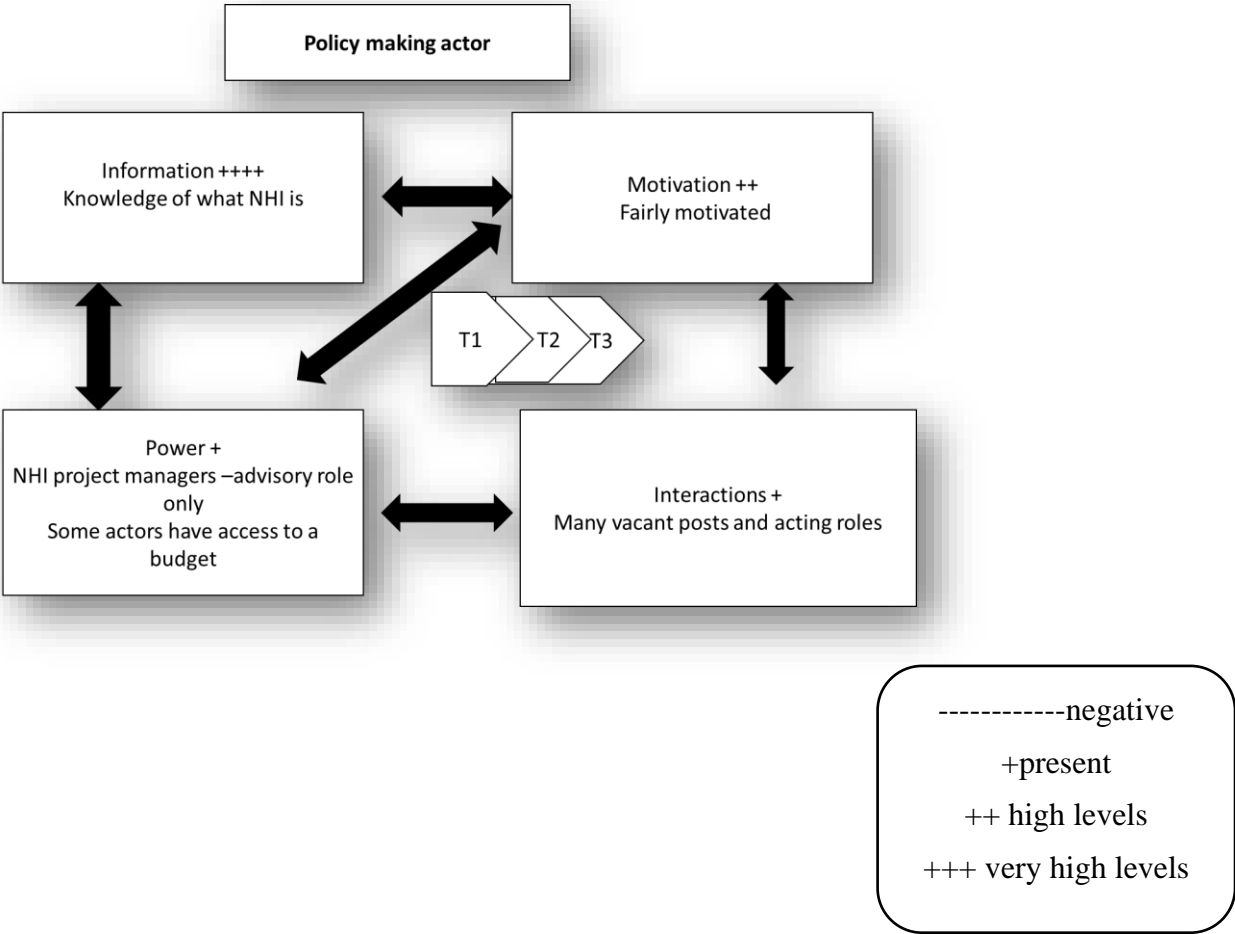


Figure 20: Policy Maker CIT tenets



There are discrepancies with regards to all CIT tenets when policy makers are compared with policy implementers. The amount of information, power, resources are higher for policy makers, at the top (province) as compared to the implementing actors. Findings also replicated interactions of information, motivation, power and resources as well as human factors perception, response and motivation. PHC supervision and lack of support from the top was repeatedly cited as a challenge by implementing actors. The tenet Leadership is not explicitly represented in CIT. This study illustrates CITs flexibility by adding a fourth variable, namely leadership interactions, to the CIT core variable motivation, information, resources and power.

10.5 Adding and highlighting a fourth construct leadership (meaning supervisor supervisee interactions)

This section introduces a new variable leadership into the four CIT core construct framework.

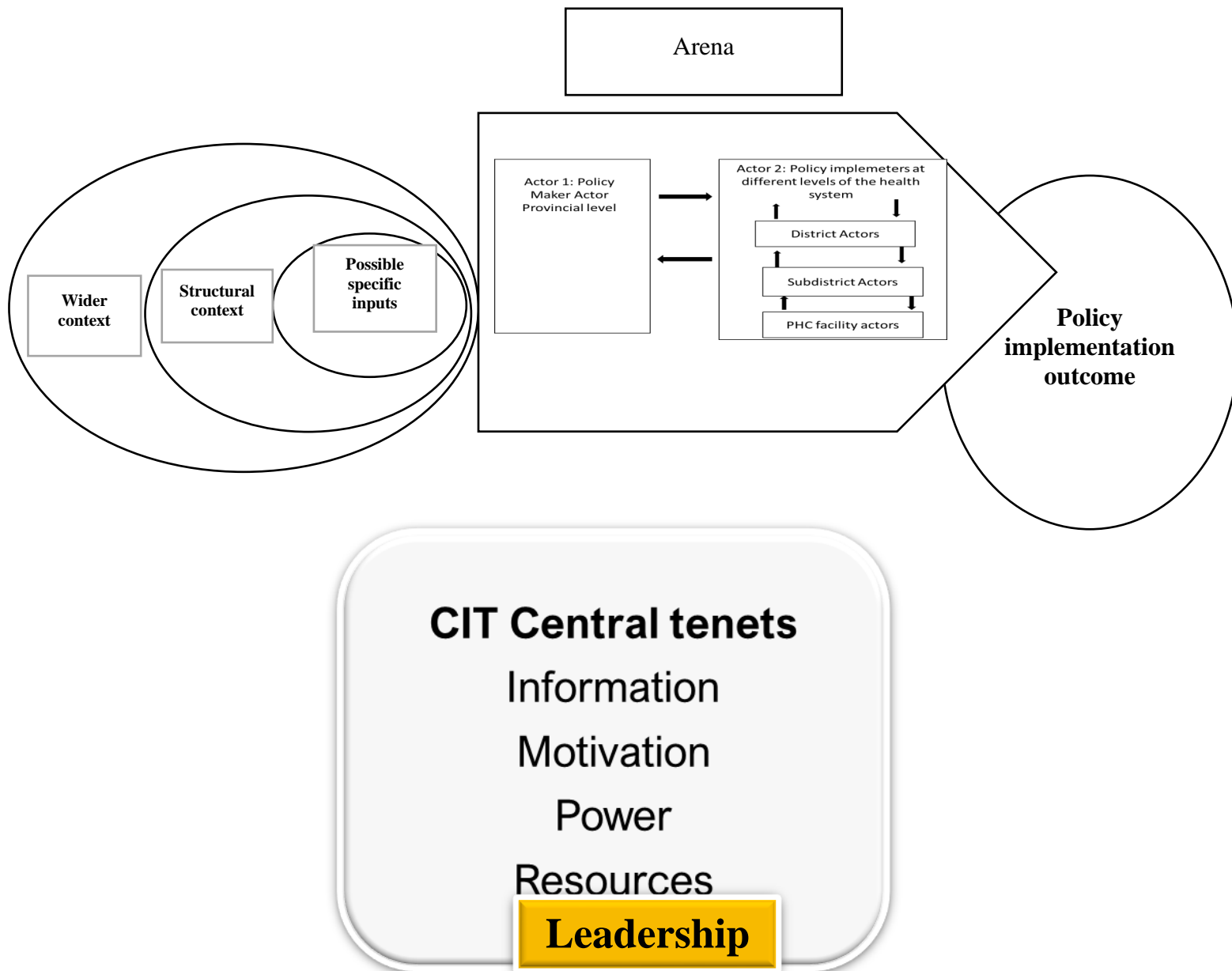
In all the analysed cases for this study, it became apparent that ignoring how leadership influences the implementation process could leave out important contributions. The critical roles of leadership and human factors are discussed below;

Leadership Definition

Leadership Interactions are defined as an occasion when two or more people communicate with or react to each other (Sinclair J.M, 1998) of particular importance in our study is the formal relationship between managers and subordinate actors including supervisor-supervisee relationships. In the context of our study, meaningful leadership interactions are formal relationships in the health system implementing actors can fall back on for support, role clarification, motivation and problem solving. Effective leaders have decision making power and financial delegations to unlock resources and solve existing problems and challenges impeding implementation. There is a two-way open communication and the senior actors ought to be leaders for implementation to succeed. Leaders have a vision, inspire subordinates and align and mobilize resources to ensure successful policy implementation. The chronic resources challenges and lack of support cited by implementing actors' points at leadership gaps. Negative leadership interactions were revealed as non-responsive and blame and punishment of subordinates whenever things went wrong. That in turn created a chain of responses by implementing actors, the human factors in order to avoid punishment further impeding implementation.

Policy implementation failure has been repeatedly associated with implementation have been related to lack of leadership (Mischen, 2006; Coovadia *et al.*, 2009) According to Meyers and Dillon 1999 something happens within the organization that can either halt the process of implementation or speed it on its way. This something must take into account organizational leadership (Mischen, 2006)

Figure 21: illustrates the modified CIT process model which includes the fourth construct Leadership



Adapted. Source: https://essay.utwente.nl/70753/1/Pavlovic_MA_Faculty%20of%20Behavioral,%20Management%20and%20Social%20Sciences.pdf

10.6 Conclusion: Case for Leadership as an additional CIT tenet

CIT proved to be not only useful but also a highly suitable framework for analysing data from a UHC implementation site. The CIT central tenets Information, Motivation, Power, Resources and Interactions were observed, alluded to by all actors and their utility in policy implementation were replicated in our study. One aspect that dominated the South African policy implementation context was leadership. This leadership has been revealed in literature before as an impediment to successful policy implementation (Curry *et al.*, 2012; *Africa doesn't need charity it needs good leadership*, 2017; *Leadership, Management & Governance / Management Sciences for Health*, 2019; Chen, 2018; Gilson and Agyepong, 2018). Our study findings repeatedly pointed at this gap. Leadership was associated with information, motivation, resources, power and interactions of these. Leaders are not satisfied with the status quo (*Leadership, Management & Governance / Management Sciences for Health*, 2019). Our research revealed chronic staff shortages, material, human and infrastructure, leaking roofs, unrepaired toilets, supply chain woes, supervision challenges, non-responsive leadership, long waiting lines. There seems to be a lack of people with visions of what ought to be and inspires others to strive towards, motivating them, aligning and mobilizing resources to ensure successful implementation (*Leadership, Management & Governance / Management Sciences for Health*, 2019). An ideal clinic is a clinic with good infrastructure, adequate staff, adequate medicine and supplies, good administrative processes and adequate bulk supplies that use applicable clinical policies, protocols, guideline as well as partner and stakeholder support, to ensure the provision of quality health care services to the community (Department of Health, 2018). Leadership in implementation is key and critical in as far as it affects resources availability, motivation and information. Most of the actors' motivation was affected by longstanding unresolved challenges confirming the leadership gap. Leaders inspire, leaders motivate, leaders communicate and leaders align and mobilize resources to ensure effective

policy implementation. To accurately reflect the SA UHC context, we propose adding leadership as a core CIT tenet to become: Information, Power, Motivation, Resources, Leadership and Interactions of all these. In order to achieve UHC, a shift from disease specific to a system wide approach is required. Without a functional basic health care system, all health and its related targets are in jeopardy (*Do you believe health is a human right? Then you believe in Universal Health Coverage*, 2018). For this to happen, leadership is needed. Current evidence points to gaps between policy and practice without necessarily explaining how this comes about (Health Systems Trust (South Africa), 2011; Mala *et al.*, 2015). The importance of leadership in policy implementation cannot be overemphasized.

11. Overall discussion and conclusions

The main aim of the thesis was to contribute to a better understanding of how policy-practice gaps come about in a Universal Health Coverage context, by exploring the implementation experiences of both policy makers and policy implementers in one pilot district in South Africa. Chapter 2 provided an overview of the key universal health care challenges as experienced by other countries that adopted UHC. This was followed by health system challenges on the ground in South Africa and the outline of envisaged national health reforms aimed at achieving UHC until 2025. Subsequently, an overview of PHC, one vehicle chosen to reach UHC, the reasons why PHC failed the first time around and the implementation gap as identified in literature were given.

The research and analysis laid out in previous chapters is appraised theoretically and methodologically. In this section firstly, the main results are summarized and discussed. Secondly, the study design used for this research is critically discussed. Finally, building on the study's findings, recommendations for research and implications for practice are given.

The main aim of the thesis was to contribute to a better understanding of how policy-practice gaps come about in a universal health coverage context in South Africa.

Central Question: How and why do discrepancies between policy and practice come about from your current policy implementation experience- identify and describe an instance(s) in the course of duty, where you or colleagues deviated from policy?

Chapter 4 revealed some potential UHC financing obstacles. Financial barriers have been revealed to push people into poverty. Lack of UHC financing is paid for by the poor in form of sickness and premature death (Schweizerische Eidgenossenschaft, 2015). Many countries are faced with serious health care financing challenges as the donor community is forced to cut spending so as to address their own domestic challenges (Khan *et al.*, 2018). In this thesis, financial challenges revealed themselves in the form of human, material and infrastructural shortages. In support of our findings, research elsewhere revealed that staff shortages, infrastructure and budget constraints impacted negatively on effective and efficient delivery of health services in South Africa (Fusheini and Eyles, 2016) . 225 billion Rands is needed to reach UHC by 2026. The exact details of how and where the money will come from are still sketchy (Department of Health, 2015).

The NHI document did not specify where the 225 Billion will come from. South Africa has high unemployment rates and a large informal sector. There are no mechanisms in place to collect money from the informal sector (Rispel, 2016). The current economic uncertainties means growth is limited (Meheus and McIntyre, 2017). This year (2019) alone, the economic growth prospects of South Africa are gloomy. The economy is only expected to expand by 0.7% as of 2019. Where will the money come from? Our findings also revealed additional stumbling blocks lying in the UHC way. One such obstacle is to move beyond the existing fragmented public and private health financing systems to create a common modern universal health financing system which is cost-effective, trusted by citizens and provides protection against

costly health services. The private sector on the other hand have vested interests (Clarke *et al.*, 2019) and the tax base is small. Who will pay?

In light of the above, UHC financing is a topic that should be discussed as donor funding dwindles and more and more countries have to rely on domestic funding. This thesis suggests that South Africa finds novel ways of financing UHC.

Chapter 5 revealed discrepancies between the challenges the nurses, the backbone of the PHC have repeatedly reported as affecting practice on the ground and the HSS initiatives on the ground. A study elsewhere supports our findings by revealing that it was inevitable that what happens on the ground is different from what was planned calling for more effort and research on strengthening District health systems (Bassett *et al.*, 2013). PHC in South Africa is nurse led. One would expect that nurses would be part of the policy making body if the old adage, involve people affected by policy in policy formulation were followed. People and experts elsewhere still formulate policies and these policies are sent down to the province, district and facility for implementation. The top down approach is still dominant and alive. We started off with the commonly held assumption that South Africa has good policies on paper and these often do not see the light of the day-why? (Ellokor S and Gilson L, 2012) This begs the question, “Are South African policy implementation issues only present in translation?” South African implementation issues seen in translation seem to also stem from policy formulation processes. To facilitate the process, we proposed a framework which could be used to evaluate and assess what health system strengthening initiatives are relevant, jointly with the nurses, utilizing the nursing process, a tool nurses use daily in their work. The actors want to be involved in policy making. South Africa has good policies on paper (Ellokor S and Gilson L, 2012), this thesis goes a step further and suggests reviewing in whose eyes policies are good? Policy maker or policy implementer?

The biggest challenge in policy implementation is not the implementers, but the lack of implementation of principles and knowledge known to enhance policy implementation. Well known basics are still not being done like, involving the people expected to implement policies in policy formulation, ensuring the availability of resources before rolling-out policies, giving power to implementers at the coal face and providing supportive supervision. These basic and fundamental issues are still not being addressed. Leaders are needed to see these basics put in place.

Chapter 6 answered the question how and why policy-practice gaps come about. We sought to answer this central question. Our findings revealed complexity and interconnectedness of factors. The central tenets Information, Motivation, Power, Resources and Interactions of these individually and jointly affected implementation. Implementation refers to what is supposed to happen when a policy is made (Béland and Ridde, 2016). Our attempt to answer this revealed five groups of factors driving this wedge. The inductive and deductive themes culminated into a five-factor frame work namely: Primary factors, Secondary factors, Tertiary factors, Extraneous factors and Systems thinking challenges. Of particular interest are the tertiary factors which are bringing about an added layer of policy-practice gaps. The human factor should not be underestimated. When a human being is introduced into a system, it becomes unpredictable in light of ideal reporting and audit driven compliance with national core standards. These human factors have to be taken into account in policy implementation, demonstrating the importance of complexity of decision making (Hughes, Sharrock and Sharrock, 2016). Our findings are also in line with bottom up approaches that revealed that managers create synergies between new ideas and existing work practices to enable policy adoption (Orgill *et al.*, 2019). These synergies are again in line with complex decision making. Similar findings were reported elsewhere (Mukiapini *et al.*, 2018).

Chapter 7 recommended the need for health systems transformation rather than health systems strengthening. This thesis revealed that the current processes and systems in the health system are outdated, formed during the twentieth century and are now obsolete. Any attempt to strengthen them means addressing symptoms and failing to address the root causes. The time has changed, epidemiologically, demographically, technologically and new systems are needed (Kuate Defo, 2014). According to actors, health system transformation and not strengthening is what needs to be done to get to UHC underway. Public private partnerships, systems lens and going back to the drawing board are some of the recommendations made.

In summary, all findings point at leadership gaps in the health system as well as in other sectors political, economic, agricultural, education etc. Chapter 8 brought to light the need for new leadership development approaches that are done in context and are results oriented if UHC is to be achieved. Chapter 9 summarizes some lessons learned on why there are varying implementation states in facilities in the same district and the steps taken by actors from the point they receive policy to making a decision. Findings again pointed at human factors but also the importance of context. Each facility is different with regards to people in the system (staff), physical layout, patients, equipment etc. and the actors want these factors to be taken into account as they affect implementation. To adopt or adapt policy is a process. Actors at the frontline seem to engage with policy, carry out a policy context audit, try to engage with superiors if there are discrepancies between policy and context and eventually take a decision to adopt or adapt policy. This is a three-step process of policy-context audit, consultation of supervisor, and then the decision: policy adaptation, delayed implementation, partial implementation or full implementation. The thesis has created a new approach of understanding the policy implementation process and why there are varying implementation states and outcomes in facilities in the same district. Policy implementation was also revealed to be a dynamic state subject to change. A facility that is policy compliant today may find themselves

non-compliant the next day e.g. if a staff member trained to offer a particular service like ART falls sick or resigns or equipment break down and is not replaced immediately. In Chapter 10, we propose the addition of Leadership to CIT central tenets. As alluded to above, leadership is key to successful policy implementation. The CIT central tenets, information, motivation, power, resources and interactions proved very useful and were replicated in our findings. Leadership however is not explicitly mentioned hence this thesis recommends adding leadership to the CIT central tenets. In this chapter we tested the CIT utility in the South African context and concluded by proposing the addition of leadership to the CIT tenets. By critically reviewing the above-mentioned research findings, this chapter further supports the finding that leadership is key to achieving UHC. The implementing actors revealed that policies were imposed from the top without their involvement. If the implementing actors are not involved in policy formulation, can we say the policies are good? For successful policy implementation, involvement of the implementer cannot be overemphasized. Understandably, the implementing actors are calling for a transformation of how policies are developed. This thesis suggests that, the above findings point at leadership gaps. There is a need for leaders who make sure that HSS initiatives are in line with challenges on the ground. There is a need for leaders who are able to align and mobilize resources during policy implementation. There is a need for leaders who demand to be involved in policy making when those policies affect them or are to be implemented by them. There is a need for leaders who see relationships among factors, who understand the current times vulnerability, unpredictable, complex and ambiguous (*A lack of leadership in Africa threatens economic progress*, 2013).

Earlier research revealed leadership gaps as challenges contributing to policy-practice gaps (Issa and David, 2012; *A lack of leadership in Africa threatens economic progress*, 2013; Doherty, Gilson and Shung-King, 2018a; Gilson and Agyepong, 2018). What they did not do however was to demonstrate how the leadership and powerlessness lead to policy-practice gaps.

This thesis has managed to fill that black box in part with the five group of factors we identified. The black box is no longer black-the five-factor framework has now filled that in a part. See figure 13.

Research has repeatedly pointed that the health system is in the state it is because of lack of leadership. Since 1994 many leadership training programmes have been started in South Africa, To date the same leadership gaps exist (Curry *et al.*, 2012; *A lack of leadership in Africa threatens economic progress*, 2013; *africa doesn't need charity it needs good leadership*, 2017; Doherty, Gilson and Shung-King, 2018a).

Outlook

If leadership is key? Ought not we stop and ask the question, “What are our leadership development programmes doing?” Where and how are the leaders produced to date? Are they effective and if not it's time for change? Taking into account investments that have been made since 1994 to date in leadership development, it begs the question, is it not high time we focus on leadership development approaches, to find out what works and what does not work. Limited results have been seen to date-why carry on doing the same thing if one expects different results? This thesis recommends RCTs to test leadership development approaches in context and evidence based (Marcus LJ. and McNulty, E. J., 2019).

Pumping money into the health system without leadership will not produce results hence we propose this as a matter of urgency if UHC is to be achieved. Leaders scan the environment, are not satisfied with the status quo, develop a vision, communicate it effectively, inspire subordinates and align and mobilize resources to ensure successful policy implementation (Doherty, Gilson and Shung-King, 2018a). This in our mind, is what is needed for UHC and other policies to be successfully implemented.

11.1 Contributions of the study

i) HSS framework

This thesis argues that if the backbone of PHC in Africa are nurses, then we ought to align health system strengthening interventions to aid these nurses do their work efficiently and effectively. This thesis proposes the use of a framework to assess the value of a health systems strengthening initiative based on asking the question, what do we want to achieve? Are we 1. Streamlining work? 2. Enhancing capacity? 3. Strengthening infrastructure? 4. Providing resources? 5. Improving research, evidence generation and innovation? All these decisions have to be done bearing in mind the PHC is nurse led.

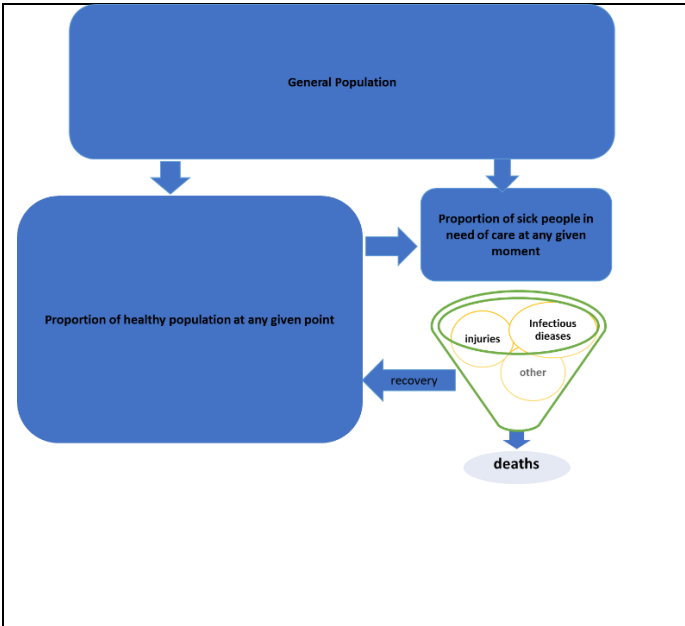
ii) Utility of Contextual Interaction Theory and the Five factor framework

This thesis was guided by the Contextual Interaction theory in analysis. This theory proved very useful. Inductively this thesis has come up with five factor framework that aids in understanding how policy-practice gaps come about: Primary factors stem from a direct lack of a critical component for policy implementation, tangible or intangible e.g. human, infrastructure and material resources, information, motivation, power). Secondary factors stem from a lack of efficient processes or systems (budget processes, limited financial delegations, top down directives, communication channels, supply chain processes, ineffective supervision and performance management systems). Tertiary factors stem from human factors (perception and cognition) and calculated human responses to a lack of primary, secondary or extraneous factors as coping mechanisms (ideal reporting and audit driven compliance with standards as a result of policing supervision). Extraneous factors stem from beyond the health system (national vocational training leading to national shortage of plumbers) and an overall lack of systems thinking. Systems thinking is a disciplined approach to examining problems more accurately and completely before acting, bearing in mind interconnectedness, moving from observing events to identifying patterns of behaviour over time, to reveal the underlying structures driving those events and patterns (Senge, 1999). Our findings concur with research done elsewhere (Spratt, 2009; Mangham and Hanson, 2010; Adams-Jack, 2016; Signe, 2017). This five-factor

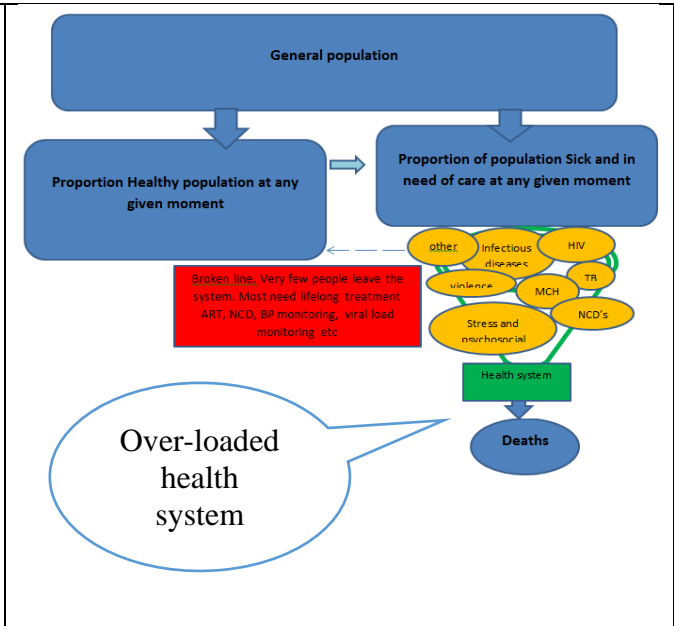
framework could serve as an alternative tool for assessing and classifying policy-practice gaps. Its utility however, still needs to be tested.

iii) Health systems transformation instead of HSS
 According to the former WHO Director General Margaret Chan, UHC is the single most powerful concept that public health has to offer (Rodin and de Ferranti, 2012). This thesis concludes that for countries to achieve UHC, systems that were set up in the past century have become obsolete and need to be changed to meet the new demands of the health system. This thesis deviated from the main stream call for Health Systems Strengthening to calling for Health Systems Transformation. The diagram below depicts the situation;

Figure 22: Health system burden 20th century



Health system burden 21st century



Adapted from Michel et al 2014, DECONGESTING THE DISTRICT HOSPITAL BY FORGING PARTNERSHIPS AND ROLLING OUT COMMUNITY BASED SERVICES AS A STRATEGY TO COPE WITH A COCKTAIL OF FOUR EPIDEMICS AND RESULTANT

iv) Proposal for new Leadership development approaches

The implementation process relies heavily on leadership. Post 1994 many leadership developmental approaches have been implemented ([„A Lack of Leadership in Africa Threatens Economic Progress“](#) 2013; Curry *u. a.* 2012; Doherty, Gilson, und Shung-King 2018)). What is missing are results on the ground. To that effect this thesis recommends RCTs on leadership development done in context-sub-Saharan Africa with measurable results as outcomes.

v) Why there are varying implementation states and outcomes-plausible explanation

Our engagement with policy makers and implementers revealed that upon receipt of policy, they do engage with it. A policy-context audit is done, and depending on fit, the actors move on to take a decision, ranging from non-implementation, adaptation, partial to full implementation highlighting the need for a transitional authority. This thesis also revealed that compliance with policy implementation is dynamic. Being compliant at one stage does not guarantee continued compliance. One example is the training of cleaning staff in infection control principles which is subject to change the moment the staff resigns or the three-stream approach is only manageable as long as the clinic has at least three PHC Nurses.

vi) Proposal to adapt CIT and include Leadership as one of the core CIT tenets
Leadership is critical for policy implementation. This thesis proposes to add Leadership to the 4 CIT tenets of Information, Motivation, Power, Resources and Interactions to make it fully adapted for use in a South African UHC context.

11.2 Methodological appraisal

A system to track UHC policy implementation

UNITAS was one of the systems set up to track UHC policy implementation. Very few systems are set up for the purpose of documenting and tracking policy implementation and monitoring

in low and middle-income countries (LMIC). This was one example of systems in South Africa to track UHC policy implementation, generating real time evidence on why policies fail or succeed. This system proved very useful as we could collect data over time and document challenges and bottlenecks in real time. Data collection was done during three phases over a period of five years. Progress or lack of progress could be observed and compared over time, giving us a holistic view.

Theory of change approach

This thesis utilized theory of change approach. Methodologically, this approach has proved to be very useful in answering the how and why questions on UHC policy implementation. A theory of change explains how change happens (Stein, D. and Valters, C., 2012). This method allowed us to engage with both policy makers and implementers, understanding from their perspective, how UHC policies were being implemented. It took into account the assumptions they had of policy, beneficiaries and planned activities aimed at reaching the goal. Thus, this approach facilitated a deeper understanding of UHC policy implementation. 71 Key Informant interviews were held. The high number of participants facilitated a broader understanding of policy implementation across levels in the health system.

The study took place over a period of five years. This was in a context of high staff turnover. One drawback however, was that not all actors could be interviewed during all three phases as some had transferred, resigned and a few had even died.

Triangulation

Triangulation denotes collecting data from multiple sources. Actors across the health system ranging from policy makers at provincial level and policy implementers at district, subdistrict and facility levels took part in the study was done. This approach is more likely to reflect a balanced picture of policy implementation as viewed from different levels and through different lens. Views of policy makers and those of policy implementers could be compared and contrasted and areas of misunderstanding identified.

Solutions and suggestions to make UHC work sought from the actors

Access to quality health care services is increasingly been seen as a human right. Many countries are striving towards UHC. In this thesis we managed to reveal what the actors at the front-line think should be done to reach UHC. Triangulation and comparison of policy views across the different levels of the health system from province, district, subdistrict to facility level provided a balanced view of what these coal face actors think needs to be done for UHC to work.

11.3 Limitations and challenges

Limited Transferability

This thesis was carried out in uMgungundlovu district, the only NHI pilot site at the time. Due to the novelty of NHI piloting many researchers flocked to the area. The disadvantage however was that the District Office was sometimes overwhelmed by research visitors, a potential reason why the District Management Team was difficult to get in the last phase. Qualitative studies are context specific, findings though transferable may differ from studies done in different contexts (Brugha, 2000). Our study did not cover other national policies being implemented but focused only on those reforms aimed at achieving Universal Health Coverage. The effect of earlier interventions

No patient input

The end user in a health system is the patient. We acknowledge that this thesis focused on perceptions of actors working in the health system, to gain their policy implementation experience. The views of patients are therefore missing in this study. Our rationale for excluding patients was that their role in policy implementation is limited. As beneficiaries of UHC policy implementation, their experience and satisfaction with UHC reforms were however explored in a separate but related study.

11.4 Implications for research, policy and practice

i. Involve frontline workers in policy formulation.

This thesis revealed that implementing actors were not involved when UHC policies were developed. The coal face actors are full of contextual knowledge and are keen to be involved from the outset. Doing so could facilitate successful policy implementation.

ii. Transition states

Policy implementation does not happen over-night. Since it is a process, transition states have to be planned for. What happens when a facility is not yet fully policy compliant but moving towards new policy implementation? An interim structure for decision making-transitional authority would be handy in cases where actors meet a policy-context discrepancy and need advice on how to carry on.

iii. Policy implementation is dynamic

This thesis has revealed that policy implementation is a dynamic process. Being policy compliant today does not mean policy compliant tomorrow. This calls for vigilance as a change in one component e.g. staff could render the facility non-compliant immediately. The degree of implementation at any given time is dependent upon the functionality of the system. If equipment and sundries are available but staff is deficient, service delivery is affected and vice versa.

iv. Tertiary factors

Policy implementation is dependent upon people in the system. Understanding of policy varies and is subject to individual interpretation. Human factors in a system bring about another level of factors that cannot be predicted. One staff member might react to staff shortages by streamlining work to be done. Another might react to the same problem by overworking and finally suffering from burn-out. Taking human factors into account is essential in policy implementation (Hughes, Sharrock and Sharrock, 2016). In the same vein, a leader that is accountable and committed to social justice might produce more results with the same amount of resources as compared to a non-committed and unaccountable leader.

v. Randomized Controlled Trials (RCT) studies on leadership development on site and in context

A functional health system is key to achieving UHC. If achieving UHC is dependent upon leadership, then leadership development approaches that produce leaders that are accountable and have a sense of urgency ought to be tested. We therefore recommend RCTs in leadership development to generate the best evidence on what works for whom and where (White, 2013; Doherty, Gilson and Shung-King, 2018b).

Table 13: Policy stage and implications for practice

Stage of policy	What evidence says	What is happening in practice	Implications
Policy formulation	Involve policy implementers to ensure successful policy implementation	Non/involvement of policy implementers in policy development / still top down approach	Non-involvement of policy implementers leads to incorrect diagnosis of the needs on the ground leading to lack of motivation to implement policies viewed as off the mark
Policy implementation	Ensure adequate Information Resources Power Leadership Motivation	Lack of Information Resources Power Leadership Motivation	The role of leadership cannot be overemphasized as they provide vision, ensure adequate involvement of staff in policy development as well as motivate staff and mobilize and align needed resources.

			<p>Lack of resources has been identified as a leading cause of policy practice gap. A resource audit prior to policy implementation could go a long way</p> <p>Lack of information resources, motivation or power leads to partial or non-implementation</p> <p>Information, motivation, power, resources and leadership individually and jointly affect implementation hence the importance of a systems thinking lens in implementation.</p> <p>Who communicates policy e.g. (Minister of health) and how policy is communicated</p>
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			<p>affects understanding of policy?</p> <p>Power to the frontline managers could aid policy implementation as implementing actors could use that power to leverage for resources or adapt policy</p> <p>Policy implementation takes time, transitional authorities are needed to guide implementers during this period when the old ways are still being phased out and new ways have not been established</p> <p>Policy implementation is dynamic, constant monitoring and evaluation is necessary as a facility that is policy compliant today can be non-</p>
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			<p>compliant tomorrow if for example staff transfers or equipment break etc.</p> <p>Human factor: some people are able to act on the system and bring about change while others are not. Individual perception and response to the challenges on the ground affects outcome. People in the system matters. Actors perceive the resource situation differently and also respond to challenges differently. Head hunting for people with the needed attributes ought to be explored.</p>
Policy Evaluation	Involve all key stakeholders	<p>Non-involvement of implementers</p> <p>Most evaluations are done by external evaluators</p>	<p>Policy implementers are keen to be involved in policy formulation but are not very much involved in evaluations either – evaluations are usually done by external</p>

			<p>evaluators and so loop is not closed: Actors kept saying, “tell them that” (meaning their supervisors) to researchers.</p> <p>Involvement of implementing actors in both policy planning and policy evaluation could foster learning organizations and positive outcomes</p>
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In conclusion, the findings of this study revealed how and why policy-practice gaps come about in a UHC context. Starting from policy formulation and development, the involvement of implementers from the outset, through to policy evaluation were underlined. In order to reduce policy-practice gaps, attention needs to be paid to the role of information, motivation, power, resources, leadership and interactions of these in policy implementation. By looking at how and why policy-practice gaps come out, this thesis hoped to contribute to a better understanding of how these come about in a UHC context and suggested concrete ways to reduce these policy-practice gaps and facilitate successful policy implementation.

12. References

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Appendix Interview Guide: Theory of change

Information, Power, Resources related questions

1. Please describe your role in this facility /unit; do you play an active role in managing this facility? (e.g. staffing. managing finances, power to hire or fire coordinating or reporting)?
2. What is your understanding of the designation of uMgungundlovu as an NHI pilot site for policies aimed at achieving UHC?
 - Goals of Universal health coverage particularly NHI and PHC re-engineering. / key actors involved /initial communication /good for the district?
3. What are the policy activities that have taken place in your sub-district so far? Please tell me what your experience with each of these has been.
 - Let the person talk but prompt for PHC re-engineering reforms including GP's / DCST's/ management strengthening / referral system / chronic disease management / quality of care initiatives?

Motivation related questions

4. How has your facility/unit and/or you individually been prepared for working with the UHC interventions (NHI and PHC re-engineering)?
 - Initial roll out/ process of introducing initiatives/ key actors involved in roll out of initiatives/resources
5. How have these interventions changed the way that you now work in your clinic/sub-district/programme? Please discuss whether this has been positive or challenging?
 - Initial adoption in the clinic / new roles for people / key changes in processes
6. What do you think the desirable change (impact) of these NHI/PHC interventions is meant to bring about in your facility/district? And how?
 - Perceived beneficiaries/ Impact on the health system/ What type of health and other benefits?

7. If you are in a management role, have you recently received any management training since 2012?
- E.g. team building and inter- personal skills, communicating with others and self - awareness, financial training, human resource training, managing assets and consumables /quality assessment.
 - How has this training influenced the way you work and/or your relationship with others, your strengths and weaknesses?
 - Has the training in any way helped you implement the new UHC initiatives?
8. Discuss the kind of capacity building/development needs in this facility / unit?
9. How has the introduction of the District Clinical Specialist Team (DCST) a PHC re-engineering reform changed the way that you now work in your clinic/sub-district/programme? Please describe your experience.
- Awareness / Initial roll out to DCSTs to the clinic or hospital / their role in activities / What has really worked well / thoughts on benefits for patients & staff / working as part of the team?
10. Has the contracting of the General Practitioners GP's another PHC re-engineering reform influenced your work in any way and how? [or GP readiness / process of getting GP ready]
- Awareness / Initial roll out to facility / role in the clinic / what works well & not so well / thoughts on benefits for patients and staff / sustainability to become part of routine practice?
 - If your clinic is 'GP ready' how is the space and new equipment (if any) being used?
11. Who in your opinion are the key structure / people or systems that ARE in place or NEED to be put in place to make these UHC interventions work at their best and to become part of routine services?
12. In your experience what changes for patients have these interventions brought about so far?
- Collective capacity of the clinic (the unit in the hospital) to function as a system and part of a system (we are trying to understand the context of the clinic):

13. Is it easy or hard to integrate new ways of working when new interventions are introduced in the facility/unit? Please explain? (Use new NHI / PHC reengineering processes as a prompt).
Ask about enablers and challenges of doing this.

Motivation/Information related questions

1. How do staff relate to each other in this facility/unit? Is there a team spirit? What enables this or what are the challenges to this?
2. Do you feel that this facility /unit in the hospital is capable of delivering the services that are needed for patients? Main challenges and enablers? [Prompts: space, equipment, protocols and guidelines in providing clinical services]?

Interactions

3. How does this facility operate as part of the sub district (primary health care system), do you work together with other facilities, local hospitals, sub district offices to provide holistic quality of care for patients? [Possibly use referral system or ability to garner support from sub district / district as prompts].
4. How do you use information? What information do you need to serve your clients? Where do you get this from? What works really well versus challenges with information management? (Archiving / retrieval of patient medical records)

Motivation/Interactions related-questions

1. Working relationships with superiors in the clinic/unit in the hospital), type of support provided, by whom? Problem solving, performance management; tasks they do together; mentoring, support
2. Are there useful channels for engaging and communicating with superiors outside the facility/unit and others in the facility? How do you engage with each other?
3. Do you have a job description? Is there a plan in place for your continuous professional development?
4. What are the factors that motivate you to come to work each day?

5. How do you use information? What information do you need to serve your clients? Where do you get this from? What works really well versus challenges (archiving / retrieval of patient medical records)
6. Any efforts made to engage communities in this clinic/ CHC/ hospital? How?
7. In your opinion what skills do managers need to help clinics/ unit in the hospital / CHC's function well? Why?

Subsequent questions for round one and round two adapted depending on previous round answers.

1. What UHC policy activities are taking place in your sub-district since 2011, or since the last interview? Please tell me what your experience with each of these has been in your role. How have these interventions changed the way that you now work in your clinic/sub-district/programme? What has been positive or challenging?

2. How has your facility/unit and/or you individually been prepared for working with the UHC interventions (NHI and PHC re-engineering), initial communication of policy, process of introducing initiatives/ key actors involved in roll out of initiatives/resources. If you are in a management role, have you recently received any management training since 2012 or since last interview? Has the training in any way helped you implement the new UHC initiatives? How much power or delegations do you have (HR, finance, procurement, supervision)?

3. Discuss the kind of capacity building/development needs in this facility / unit? Do you feel well supported in your role? Explain why and give examples. Do you feel that this facility /unit in the hospital is capable of delivering the services that are needed for patients? Main challenges and enablers? Do you have a job description? Is there a plan in place for your continuous professional development? How is this planned and in your opinion why is this effective or not effective?

2. How have you gone about integrating the old and new ways of working when new interventions (UHC policies) were introduced in the facility/unit? What are the bottlenecks,

successes and challenges you are experiencing in your current role as a UHC policy maker/ implementer? Can you identify and describe an instance(s) in the course of your duties, where you or colleagues deviated from policy and please explain how and why this came about?

3. What do you think needs to happen for the current UHC policies to be implemented successfully and why? Is it with regards to information, power, interactions and motivation, resources etc.? Who in your opinion are the key structures / people or systems that are in place or need to be put in place to make these UHC interventions work at their best and to become part of routine services?

4. How do staff relate to each other in this facility/unit? Is there a team spirit? What enables this or what are the challenges to this? What are the factors that motivate you to come to work each day? Working relationships with superiors in the clinic/unit in the hospital), type of support provided, by whom? (problem solving, performance management; tasks they do together; mentoring, support. In your opinion what skills do managers need to help clinics/ unit in the hospital / CHC's function well? Why?

5. How does this facility operate as part of the sub district (primary health care system), do you work together with other facilities, local hospitals, sub district offices to provide holistic quality of care for patients? Are there useful channels for engaging and communicating with superiors outside the facility/unit and others in the facility? How do you engage with each other? Any efforts made to engage communities in this clinic/ CHC/ hospital? How

6. How do you use information? What information do you need to serve your clients? Where do you get this from? What works really well versus challenges with information management?

Full Ethics Approval



16 October 2013

Dr T Barnighausen
P.O. Box 198
Mtubatuba
3935
South Africa
tbarnighausen@africacentre.ac.za

Dear Dr Barnighausen

**PROTOCOL: Universal Coverage in Tanzania and South Africa: Monitoring and Evaluation (UNITAS).
REF: BE197/13**

EXPEDITED APPLICATION

A sub-committee of the Biomedical Research Ethics Committee has considered and noted your application received on 13 May 2013.

The study was provisionally approved pending appropriate responses to queries raised. Your responses dated 07 October 2013 to queries raised on 16 July 2013 have been noted by a sub-committee of the Biomedical Research Ethics Committee. The conditions have now been met and the study is given full ethics approval and may begin as from 18 October 2013.

This approval is valid for one year from 18 October 2013. To ensure uninterrupted approval of this study beyond the approval expiry date, an application for recertification must be submitted to BREC on the appropriate BREC form 2-3 months before the expiry date.

Any amendments to this study, unless urgently required to ensure safety of participants, must be approved by BREC prior to implementation.

Your acceptance of this approval denotes your compliance with South African National Research Ethics Guidelines (2004), South African National Good Clinical Practice Guidelines (2006) (if applicable) and with UKZN BREC ethics requirements as contained in the UKZN BREC Terms of Reference and Standard Operating Procedures, all available at <http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx>.

BREC is registered with the South African National Health Research Ethics Council (REC-290408-009). BREC has US Office for Human Research Protections (OHRP) Federal-wide Assurance (FWA 678).

The sub-committee's decision will be RATIFIED by a full Committee at its next meeting taking place on 12 November 2013.

We wish you well with this study. We would appreciate receiving copies of all publications arising out of this study.

Yours sincerely

Professor D.R. Wassenaar
Chair: Biomedical Research Ethics Committee

**Professor D Wassenaar (Chair)
Biomedical Research Ethics Committee
Westville Campus, Govan Mbeki Building**

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 2384 Facsimile: +27 (0)31 260 4609 Email: brec@ukzn.ac.za

Website: <http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS



Curriculum vitae

EDUCATION

University of Basel, Switzerland 2016 to date

PhD in Epidemiology

John Hopkins University

Systems thinking certificate 2018

Harvard University, USA

Principles and practice in clinical research 2018

USAID/Measure Evaluation/Management Sciences College

Virtual Leadership Development Diploma 2012

University of South Africa

Master of Public Health 2012

Business Management Training College South Africa

Certificate in outcomes-based assessments 2010

*Certificate with distinction

Flying Teachers Zurich, Switzerland

Cambridge Certificate in teaching English to adults 2004

University of South Africa

Degree in Health services Management and Nursing Education 1997- 2003

*Degree with distinction

Harare Central Hospital

Diploma Registered Nurse 1990-1993

*Best student

RELEVANT WORK EXPERIENCE

PROGRAMME EVALUATOR

April 2018-date

Global Health Mentorship (GHMe)

I have led the team in the development of a theory of change, identified a suitable framework (MENTOR) and developed the log frame. I have also evaluated the Global Health Mentorship 2015-2017 data base quantitatively and qualitatively. In the process, I identified gaps and reasons for discontinuation of mentorship and made recommendations to improve 2019 program outcomes, through among others mentor-mentee matching. I have also made

recommendations to include modules of current relevance covering migration, fake news and conflict.

PROJECT ASSISTANT

Feb 2017 -Feb 2018

University of Bern

Developed a qualitative research protocol aimed at exploring reasons patients get lost to follow-up in Anti-retroviral therapy (ART) programmes in Zimbabwe and Mozambique

RESEARCHER

JULY 2013 to March 2016

Affiliated to Africa Centre for Research and Population Studies

Tracked National Health Insurance policy implementation in one pilot district, uMgungundlovu in South Africa as a part-time researcher in a team, Universal access in Tanzania and South Africa (UNITAS). I utilized a qualitative inquiry, theory of change approach and interviewed policy makers and policy implementers to elicit success, challenges and bottlenecks they faced during policy implementation

CLINICAL RESEARCH MANAGER

OCT 2012 to NOV 2014

Africa Centre for Research and Population Studies

I provided leadership in clinical research through mentoring and supportive supervision to 17 clinics and a district hospital in uMkhanyakude subdistrict in South Africa. Utilizing data in the health information system, we identified that those patients that we had successfully initiated on ART were now succumbing to chronic illnesses particularly Diabetes and Hypertension. A needs assessment then revealed a knowledge gap among nurses, erratic drug supply, staff shortage, incomplete chronic disease registers and lack of supportive supervision, I then provided on the job training to nurses who worked in the Primary Health Care on how to carry out a psychosocial assessment using motivational interviewing techniques and how to utilize chronic care models including the COM-B Model and Behaviour Change Wheel Framework to plan individual chronic care interventions for patients. Interventions were aimed at addressing the health systems building blocks as far as possible. Staff was short and drugs supplies of chronic medicines were erratic and so I collaborated with the Department of health to ensure that supplies reached the clinic timely.

RESEARCH INTERN

OCT 2011 to SEPT 2102

Africa Centre for Research and Population Studies

I assisted the Manager of Hlabisa HIV Treatment and Care in programme restructuring, monitoring and evaluation, capacity development of middle management and transformed the program from service delivery to technical assistance provision to 17 Clinics and one District Hospital in uMkhanyakude district. I also facilitated and conducted team building workshops for the staff of 133 employees.

PART TIME M&E CONSULTANT

APRIL 2011-SEPT 2011

Paradigm shift

I provided monitoring and evaluation support to small enterprises as well as mentoring and micro credit training, assessment and evaluation of Business Trainers, Point Person and Life Coaches.

MONITORING & EVALUATION ASSISTANT MANAGER

JUNE –JAN 2011

Noah Orphans. Durban

I conducted and coordinated an Evaluation of activities of Noah Orphans, leading a team of one Research Officer and two data capturers. I then wrote the 2010 Nurturing Orphans of AIDS for Humanity (Noah Orphans) District Research that got published.

CLINICAL FACILITATOR

OCT 2009-MAY 2010

The Bay Hospital, Richards bay

I provided clinical education, training, assessment and evaluation of all categories of nursing students. Conducted research, including departmental situational analyses, clinical audits, in-service education and training to all categories of staff.

LECTURER HEALTH SCIENCES

SEPT 2007-SEPT 2009

Hlabisa Sub Campus

Planned and gave lectures to enrolled and bridging students in Anatomy and Physiology, Applied Sciences and Physics and Chemistry. Provided clinical education and training for the surgical ward, evaluation and assessment of learner progress, mentoring of students, clinical teaching and accompaniment.

OPERATIONAL NURSE

NOV 2000-JULY 2006

Trauma practice, Switzerland

Planned, organized, supervised, coordinated and evaluated nursing care of all patients. Supervised and coordinated the haematology, pharmacy and radiography sections. Conducted home visits and school vaccinations.

HOME BASED CARE PROGRAMME CO-ORDINATOR JAN 1994 – MAY 2000

Bikita District, Zimbabwe

Conducted a situational analysis, led focus group discussions and conducted training for transformation sessions with communities. The goal was to ensure that community gardens become a source of food for the terminally ill and AIDS orphans in their respective catchment areas. Supervised health care workers, gave health education to communities, coordinated orphan care and education, fundraised, managed finances and wrote reports to donors.

SISTER IN CHARGE GENERAL & INFECTIOUS DISEASE UNIT JAN-DEC 1993

Musiso Hospital, Zimbabwe

Planned, organized, coordinated, supervised and evaluated patient care including NCD patients. Supervised, guided and mentored general nurses` diploma students, did clinical assessment of students for progress and competency, appraised staff and ensured quality of care and coverage during weekend calls, for the whole hospital.

RECENT MEETINGS AND SCIENTIFIC CONFERENCES ATTENDED

INTERNATIONAL DEVELOPMENT APPROACHES TO MONITORING AND EVALUATION 1 AND 2: APPLICATIONS BY GENEVA INTERNATIONAL AGENCIES

2019 Spring School of Global Health Geneva

INTERPROFESSIONAL COLLABORATION IN THE US HEALTH CARE SYSTEM

2019 University of Luzern

SWISS SOCIETY OF HEALTH ECONOMICS

12-16 Feb 2018 Experimental Health Economics

GENEVA HEALTH FORUM

19-21 April 2016

OPEN GENEVA HACKATHON

16-18 April 2016

GRADE. CERQUAL WORKSHOP

November 2018

SUMMER SCHOOL IN PUBLIC HEALTH POLICY, ECONOMICS AND MANAGEMENT

29-31 August 2016

SELECTED PUBLICATIONS

- Janet Michel, M Ishaq Datay, Thabang J Motsosi, Till Bärnighausen, Fabrizio Tediosi, Di McIntyre, Marcel Tanner, David Evans. Achieving universal health coverage in sub-Saharan Africa: the role of leadership development. Accepted in Journal of Global Health Reports. August 2019
- Janet Michel, Natsayi Chimbindi, Nthabiseng Mohlakoana, Marsha Orgill, Till Bärnighausen, Brigit Obrist, Fabrizio Tediosi, David Evans, Di McIntyre, Hans T.A Bressers, Marcel Tanner. How and why policy-practice gaps come about: A South African Universal Health Coverage Context- Accepted Journal of Global Health reports
- Janet Michel, Astrid Stuckelberger, Fabrizio Tediosi, David Evans, Peter van Eeuwijk. The roles of a Grandmother in African societies – please do not send them to old people’s homes. Journal of Global Health
- Janet Michel, David Evans, Fabrizio Tediosi, Don deSavigny, Matthias Egger, Till Bärnighausen, Diane McIntyre, and Laetitia Rispel. Lest we forget, primary health care in Sub-Saharan Africa is nurse led. Is this reflected in the current health systems strengthening undertakings and initiatives? Journal of Global Health Reports Vol 2 joghr-02-e2018009.
- Stott K, Michel J, de Oliveira T. Principles of HIV drug resistance for clinical management in South Africa HIV Nursing Matters, 3(4):46-51 (2012).
- Michel J, Matlakala C, English R, Lessells R, Newell M. Collective Patient behaviours derailing ART roll-out in KwaZulu-Natal: Perspectives of Health Care Providers Journal: AIDS Research and Therapy. MS ID: 1779435423942235
- Michel J & Matlakala MC. 2013. The challenges experienced by nongovernmental organizations with regard to the roll-out of antiretroviral therapy in Kwazulu-Natal. *S Afr Fam Pract* Vol 55 No 3. 264-269

Under Review

- Janet Michel, Brigitte Obrist, Till Bärnighausen, Fabrizio Tediosi, Di McIntyre, David Evans, Marcel Tanner. What we need is health system transformation, not health systems strengthening for Universal Health Coverage to work: Perspectives from a National Health Insurance pilot site in South Africa. Under review South African Family Practice Journal

- Janet Michel, Nthabiseng Mohlakoana, Till Bärnighausen, Fabrizio Tediosi, David Evans, Di McIntryre, Hans T.A Bressers, Marcel Tanner. A comparative analysis of how actors implement: Testing the Contextual Interaction Theory in a UHC pilot district South Africa. Under review Journal of Comparative Policy Analysis
- Janet Michel, Nthabiseng Mohlakoana, Till Bärnighausen, Fabrizio Tediosi, Di McIntryre, Hans T.A Bressers, Marcel Tanner, David Evans. Why are there varying UHC policy implementation states and outcomes among facilities in the same district? the process and lessons learned from a national health insurance pilot site. Under review Journal of Global Health