

**The implementation of the Prevention of
Mother-to-Child Transmission Guideline 2013
by the Western Cape Department of Health: an
evaluation**

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Dedicated to my children Imaad, Abdu – Daiyaan and Ulfa for your unwavering support and patience over the years, I would not have reached this milestone without your support.

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ABSTRACT

The World Health Organisation introduced Option B+ in 2012 to eliminate HIV (vertical transmission from mother to child). The Western Cape Government, Department of Health followed by releasing its Prevention of Mother to Child Transmission Guideline in 2013. The purpose of the study is to evaluate the implementation of this guideline in the province in selected delivery sites within the Western Cape.

The study makes use of a mixed methods approach using a case study as its design. The study collected qualitative and quantitative data using semi-structured interviews administered to health care practitioners and patients.

The results indicate that for the routine PMTCT programme indicators, antenatal clients initiated on ART, the target was exceeded, for the indicator infant 1st PCR test positive at around 6 weeks, a decrease in HIV transmission from mother to baby was noted. Implementation challenges relating to task shifting and the scope of practice of the Registered Professional Nurse who are the key drivers to implementing the PMTCT Guideline 2013 were experienced. Other resource constraints relating to infrastructure, equipment and an upgraded monitoring and evaluation system in the MOUs' to capture ART data was also identified.

The study concludes by offering recommendations to address the current top down policy implementation process. To improve local accountability for policy implementation grassroots level should be involved with policy drafting and be allowed to manage the budget (practical consideration to staffing, stock and equipment procurement, task shifting, re-designing facility process flows, improving Monitoring and Evaluation systems to accommodate for the revised policy implementation) are necessary to support policy implementation.

Key words

Antiretroviral therapy; HIV counselling and testing; Western Cape Provincial Government; Prevention of mother-to-child transmission; Primary health care.

ABBREVIATIONS:

AIDS: Acquired Immunodeficiency Syndrome

ART: Antiretroviral Treatment

ARV: Antiretroviral/s

HAST: HIV, AIDS, STI and TB

HCT: HIV Counselling & Testing

HIV: Human Immunodeficiency Virus

MOU: Maternity & Obstetrics Units

MTCT: Mother to Child Transmission

NDoH: The National Department of Health

NPO: Non-Profit Organisation

NVP: Nevirapine

PCR: Polymerase Chain Reaction

PHC: Primary Health Care

PLWHA: People living with HIV AIDS

PMTCT: Prevention of Mother to Child Transmission

STI: Sexually Transmitted Infections

TB: Tuberculosis

WCDoh: Western Cape Department of Health

WHO: World Health Organisation

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 Orientation and problem statement

The Human Immunodeficiency Virus (HIV) is a virus which causes the Acquired Immunodeficiency Syndrome (AIDS) (Blattner, Gallo & Temin, 1988:515). AIDS was first recognised in the early 1980's, as a disease which inevitably results in fatality. The disease has a prolonged induction period that may last several years, during which time the person is clinically asymptomatic, showing no signs of the disease. The majority of infected persons, such as pregnant women, may therefore be unaware that they are infected during this induction period; while still being able to transmit the disease to others. There are several modes of transmission of which having unprotected sex is the most common one (Blattner *et al.*, 1988:515).

The first reports of the HIV/AIDS were in the United States of America (USA) in 1981, with the Centre for Disease Control and Prevention (CDC) publishing a Morbidity and Mortality Weekly Report (MMWR) on a rare lung condition (later known as AIDS) in five young otherwise healthy homosexual men in Los Angeles (Merson, 2006:2414). By the end of 1981 a total of 270 AIDS cases were reported amongst homosexual men in the USA, of which 121 were fatal. The first infant AIDS case was reported by the CDC one year later, due to a blood transfusion, and later that same year the MMWR reported 22 other cases of AIDS in infants. AIDS was no longer confined to the homosexual male population, but was also affecting both women and children (Merson, 2006:2414).

The World Health Organisation (WHO) held its first meeting in October 1983 to assess the global AIDS situation, and commenced international surveillance of the disease (Merson, 2006:2414). In 1984 the USA Department of Health announced that Dr Robert Gallo at the National Cancer Institute had found the cause of AIDS to be the retrovirus HTLV-111 (Lederberg, 2000:287). One year later, the first WHO International AIDS Conference was held in Atlanta, Georgia where the USA Public Health Service issued the first recommendations for preventing HIV transmission from

mother to child. Significantly, within the four-year period commencing from 1981, only five cases of AIDS were reported in the USA; in 1985 one HIV case was reported in each region of the world (Merson, 2006:2414). The following five years saw the International Steering Committee for People with HIV/AIDS created in 1986, while in 1987, AIDS became the first disease ever to be debated by the United Nations (UN) General Assembly. The Assembly resolved to mobilise the entire UN system in the worldwide struggle against AIDS and designated the WHO to lead the effort (Merson, 2006:2414).

In 1988 the WHO declared December 1st to be World AIDS Day, and it has been known as such ever since, with every country annually on this day hosting events to remember those who lost the battle against AIDS, but fostering new hope that a cure would someday be found. During 1988 the joint UN Programme on HIV/AIDS reported that for sub-Saharan Africa the number of women living with HIV/AIDS has exceeded that of men (Merson, 2006:2414).

In 1989 the CDC adopted the HIV-Prevention Counselling Model, a “client-centred” approach that focuses upon the patient, rather than the disease. This approach considers the client as a whole and, rather than addressing the disease, it addresses the needs of the client as an individual. In 1999 the WHO announced that HIV/AIDS had become the fourth biggest killer worldwide and the number one killer in Africa, with 33 million people living with HIV worldwide and 14 million having already died of the disease (Merson, 2006:2414).

On the African continent the Eastern African countries of Uganda, Rwanda, Burundi, Tanzania and Kenya were the first African countries to be affected by HIV/AIDS, reaching epidemic levels in the early 1980s (Illife, 2006:387). The disease then spread to Western Equatorial Africa and Western African nations. In 1988 the second highest prevalence rate of HIV in all of Africa was found among those travelling and living along the Tanzam Road which links Tanzania and Zambia. For Africa, as the decade progressed, so did the epidemic, moving from the South through Malawi, Zambia, Mozambique, Zimbabwe and Botswana (Illife, 2006:387).

For South Africa, the response to the epidemic was slow, since the country was transitioning from *Apartheid* rule to democratic governance. The first reported cases of HIV/AIDS were two white homosexual men, both flight stewards, who had visited the USA, with the sentiment that they had brought the disease upon themselves (Anon, 1998:11). The government of the day was non-reactive, and the disease was coined a homosexual disease. By the 1990s, however, the heterosexual spread of the disease was on the increase, and soon equaled the homosexual mode of transmission, forcing government to re-think its position (Anon, 1998:11).

However, it took a decade for South Africa to take concrete action to combat the spread of AIDS, due to the country's turbulent political climate, the prejudice to the disease and the conspiracy theories that this was a disease being spread by those opposing the African National Congress (ANC) Government (Desmond, Gow, Badcock-Walters, Booysen, Dorrington & Ewing, 2002:11-13).

For women and children in South Africa the period from 1998 to the early 2000s was a dark period. Despite the 1998 research conducted in Thailand proving that a course of the medicine Zidovudine, also known as AZT, was able to half mother-to-child transmission (MTCT), the Minister of Health at the time, Dr Dlamini-Zuma, opposed the use of AZT in South Africa, stating that the government would prefer to focus upon prevention rather than curative measures for the disease. The Department of Health was redressing the historic unequal distribution of health care, and AZT was deemed to be an expensive investment for a minority group (Parkhurst, 2004:1913).

In 2001, the Treatment Action Campaign (TAC) challenged the South African Government and the Minister of Health in court, following the controversial position government took to not provide AZT to pregnant women and their children. The TAC argued this to be in violation of the constitutional right of pregnant women and their children. The TAC put forward that evidence existed which proved AZT as a single drug had the ability to reduce mother to child HIV transmission. (Schneider, 2002:68).

The National Department of Health (NDoH) at this time endorsed the establishment of two research sites in each of the nine provinces for a period of two years, during the launch of the Presidential Partnership Against AIDS, with the aim of understanding the operational challenges of introducing antiretroviral treatment (ART) during pregnancy, to reduce mother-to-child transmission (MTCT) (Schneider, 2002:68). In 2002, a

health systems review carried out by Bruce Venter argued that the leading cause of death in 40% of South African children under the age of five was as a result of HIV and AIDS (Pretoria News, 2004). Several studies in South Africa and internationally over the period 1994 to 2008 found that there are numerous ways to prevent or decrease the transmission of the HIV from the pregnant mother to her child. In 1994 the findings of the Pediatric AIDS Clinical Trials Group were published, proving that AZT can effectively reduce the MTCT rate by 67,5% (The Petra Study Team, 2002:1178). In February 1994, the most dramatic prevention breakthrough occurred, when the results of the Pediatric AIDS Clinical Trials Group (PACTG) Protocol 076 demonstrated that the risk of MTCT could be reduced from 25.5% to 8.3% by treating the mother and neonate with zidovudine (ZDV) (Stiehlm, Lambert, Mofenson, Bethel, Whitehouse, Nugent, Moye, Fowler, Mathieson, Reichelderfer, Nemo, Korelitz, Meyer, Sapan, Jimenez, Gandia, Scott, O'Sullivan, Kovacs, Stek & Shearer, 1999:90). The Mitra Study later found MTCT of HIV through breast-feeding can be reduced by providing the prophylactic Lamavudine (3TC) treatment for infants during breast-feeding (Kilewo, Karlsson, Massawe, Lyamuya, Swai, Mhalu & Biberfeld, 2008). The Mitra Plus Study found that treating pregnant women with highly active anti-retroviral (HAART) medicine resulted in a low postnatal HIV transmission, similar to that previously demonstrated in the Mitra Study in Dar es Salaam, using infant prophylaxis with 3TC during breastfeeding. In the Mitra Plus Study for the 441 infants included in the analysis of HIV transmission, the cumulative transmission of HIV was 4.1% at 6 weeks, 5.0% at 6 months and 6.0% at 18 months after delivery (Kilewo, Karlsson, Massawe, Lyamuya, Swai, Mhalu, & Biberfeld, 2009:71).

Based upon the findings of the studies conducted in the 1990's, and despite the national minister announcing that the AZT single drug regimen was unaffordable for South Africa, the Western Cape Provincial Government took a different approach to the managing of the HIV epidemic. The Western Cape Department of Health supported by non-profit organisations during 1998 commenced its Prevention of Mother-to-Child Transmission (PMTCT) Programme in Khayelitsha, Cape Town, as a pilot, in the absence of a National Department of Health policy framework. In 2000, at the 13th International HIV Conference, held in Durban, data of the pilot was presented, indicating that antiretroviral drug regimens were effective in reducing MTCT, however concerns of offering mono (single drug) therapy to the HIV infected mother was also

raised (Lallemant, Jourdain, LeCoeur, Koetsawang, Comeau, Phoolcharoen, Essex, McIntosh & Vithayasai, 2000:982). The official Western Cape Provincial ART Programme commenced later that year (Arendse, 2015).

The primary aim of the PMTCT Programme is to decrease the number of HIV infected babies born to HIV positive mothers. To prevent the transmission of the virus from mother to child, it is crucial that the appropriate treatment, care and support be provided to the women living with HIV before, during and after pregnancy (Barron, Pillay, Doherty, Sherman, Jackson, Bhardwaj, Robinson, & Goga, 2013:70). The earlier the intervention is started, the lower the risk of transmission from mother to the baby.

The national PMTCT Programme was officially evaluated in 2005, in which the concerns raised by the NDoH in 2001 relating to the provision of monotherapy (one drug-AZT regimen) were proven to be valid. Providing a single drug to the pregnant HIV infected mothers did not reduce the risk of transmission to the unborn child. The Western Cape Province, with the support of the Global Fund, was in 2006 one step ahead of the rest of the country with implementing a PMTCT package of care, by offering not only the single drug but offering formula milk for babies and health education on safe formula practices (Barron *et al.*, 2013:70).

Since the inception of the PMTCT Programme in 2002 in South Africa, several policy changes followed in 2006, 2008, 2010 and 2013, with the intent to achieve the Millenium Development Goals, in 2015 replaced by the Sustainable Development Goals, and have zero new HIV infections in children. Between 2008 and 2011, major changes in the professional nursing practice occurred, with the burden of disease demands requiring a shift towards nurses initiating and managing patients on ART. Nurse-driven services allowed for wider access of care for patients and better implementation of the PMTCT Programme. Clinical policy changes which were effected, led by the Western Cape Province, included moving from a single drug regimen, namely AZT, to dual and eventually triple drug therapy in 2013 (Gilks *et al.*, 2006:505).

The national evaluation recommended that a comprehensive package of interventions should be developed and implemented, which was to include routinely offering voluntary counselling and testing (VCT), counselling on infant feeding practices, safe

non-invasive obstetric procedures, single dose nevirapine (NVP) and the provision of infant formula feeding. The driving logic was that unless the health system as a whole was strengthened, the PMTCT Programme would not succeed. The PMTCT Programme moved from a vertically implemented Programme to the integration of the Programme into the greater health care system. This required the addition of PMTCT indicators into the district health system, to monitor and evaluate the Programme, training of health workers and the allocation of financial resources for the Programme. The inclusion of the indicators was effected in 2006 in the Province with the assistance of the Global Fund, while at the national sphere, resource deliberations were happening to provide this for the remaining eight provinces of South Africa (Barron *et al.*, 2013:70).

The evolution of the PMTCT Programme from a single drug regimen package to a triple drug regimen and health management package for both mother and child in South Africa was multi-faceted (Barron *et al.*, 2013:70). The evaluation of the effectiveness of the National PMTCT 2010, revealed that although the data suggests a greater than 80% reduction in MTCT from 25% - 30% (with no PMTCT interventions) to 3.5%, virtual pediatric HIV elimination will only be possible with intensified efforts. Estimated targets to reach the 2015 South African national targets would be MTCT rates of less than 2% at 6 weeks and less than 5% at 18 months. Gaps in the PMTCT need to be addressed; postnatal MTCT must be prevented through improved post-natal linkage to care, infant feeding and expanded coverage of the Postnatal Prophylaxis Programme (Goga, Dinh & Jackson, 2012:45).

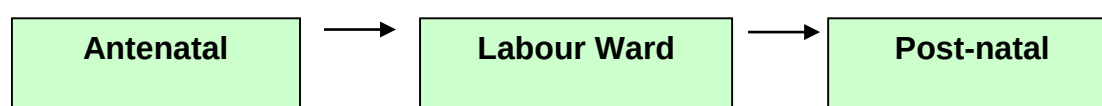
In 2012, the WHO (2012:1) further advocated for the alignment of the PMTCT drug regimens to that of ART, calling this Option B, while at the same time introducing a third option, called Option B+, not only providing the same triple ARV drugs to all HIV-infected pregnant women in the antenatal period, but also continuing this therapy for all of these women for life (WHO, 2012:1). The advantages of Option B+ are the protection against MTCT in future pregnancies, a continuing prevention benefit against sexual transmission to sero-discordant partners, and avoiding stopping and starting of ARV drugs which leads to ART drug resistance (WHO, 2012:2).

The implementation of the PMTCT Guideline, 2013 can be said to form part of preventive medicine, as it is both a treatment for the disease and a prophylaxis.

Promoting health and preventing illness, focusing upon both the individual (the HIV infected mother) and the population at large (decreasing the transmission of new infections to her unborn children, in the current and future pregnancies), will ensure a sustainable economic workforce for the future (Barron *et al.*, 2013:70). Implementing this guideline meant that the building blocks for the Programme had to be in place, as providing lifelong ART post-delivery to women would increase the demands upon the health services.

There are three distinct phases of PMTCT, as indicated in Figure 1.1 below. The first phase of the PMTC is during pregnancy (the antenatal pregnancy period), the second when the woman is in labour, and the third the post-delivery period (Gilks, Crowley, Ekpini, Gove, Perriens, Souteyrand, Sutherland, Guerma & De Cock, 2006:505).

Figure 1.1: Three phases of Prevention of Mother-to-Child Transmission (PMTCT)



Source: (Gilks *et al.*, 2006:505)

The implementation of the PMTCT Guideline 2013, recognises that in order to prevent HIV between women and their children, the four elements of PMTCT are integral across the span of these phases. According to Goga *et al.*, (2012: 45) these four elements are:

- primary prevention of HIV, especially amongst women of childbearing age;
- preventing unintended pregnancies amongst women living with HIV;
- preventing HIV transmission from a woman living with HIV to her infant; and
- providing appropriate treatment, care and support to women living with HIV and their children and families.

The implementation of the PMTCT Guideline 2013 (also known as Option B+), was implemented in the Province, following a consultative process which was supported by several academic institutions and partner organisations. The implementation of the PMTCT Guideline 2013 was adopted nationally towards the end of 2014 for implementation on the 1st January 2015; two years after the Western Cape Province first implemented the policy (Barron *et al.*, 2013:70).

The Western Cape Department of Health, HIV/AIDS/STI and TB (HAST) Directorate has a critical role to perform with regard to policy development, policy implementation and monitoring and evaluation of health policy, as it relates to the prevention and cure of infectious diseases, both provincially and nationally (Arendse, 2015). The Directorate develops dynamic policies which are responsive to the burden of disease needs of the patients, making use of public health care facilities in the Province. Conforming to the district health system principles, these policies are applicable to the primary health care facility setting, district hospitals and tertiary institutions and non-profit organisations rendering clinical care in the Province (Arendse, 2015).

In 2011, an estimated 70.4% of maternal deaths in South Africa were associated with HIV infection, as were half of all deaths of children younger than 5 years old. PMTCT is critical for reducing HIV maternal and child mortality and morbidity (Barron *et al.*, 2013:70). The HAST Directorate reviews the performance of the PMTCT and ART Programmes quarterly, as part of the routine monitoring of the Programmes to determine outcomes and value for spend on the Programmes. Below is an example of the template used for presentation at these quarterly meetings, with a focus upon the PMTCT Programme indicators.

Table 1.2: Business Plan 14/15 quarterly provincial performance for PMTCT Indicators (Department of Health, Western Cape 2014:1)

PMTCT INDICATORS 2014/15 PROVINCE: WESTERN CAPE							
				2015			
Sub-programme				Q1 (April - June)		Q2 (Jul - Sept)	
				Target	Actual	Target	Actual
5.5 PMTCT	1.Antenatal client HIV 1st test	90,123	90,000	23,000	21,639	23,000	23,022
	2.Antenatal client HIV 1st test positive	5,975	6,300	1,600	1,196	1,600	1,401
	3.Antenatal client initiated on ART	4,508	6,300	1,600	1,686	1,600	1,947
	4.Babies given Nevirapine within 72 hours after birth	13,062	12,800	3,350	3,351	3,350	3,305
	5.Infant 1st PCR test around 6 weeks	13,068	12,800	2,750	3,348	3,350	3,243
	6.Infant 1st PCR test positive around 6 weeks	239	208	52	44	52	46

(Department of Health, Western Cape 2014:1)

The above table is an extract from the Division of Revenue Act No 5 of 2004 (DORA), Business Plan 14/15 Quarterly Provincial Performance Report, as at the end of September 2014. As per Indicator 3 - Antenatal clients initiated on ART, the expected number of antenatal clients initiated on ART (pregnant women testing HIV positive and eligible for ART) exceeded the target for the quarter. The target was set at 1600 while 1686 pregnant women were started on ART. With more women started on ART than were eligible to do so, the study argues that this could be an indication that there is a back-log with enrolling women on the ART Programme. The table indicates that for Quarter 1 (April - June) for Indicator 6 - Infant 1st PCR test positive at around 6 weeks, a total of 44 babies tested positive for the HIV infection and for Quarter 2 a total of 46 tested positive. This means that of all the HIV pregnant women initiated on ART, less babies are born infected with the HIV infection and testing HIV positive at 6 weeks. The Province did not meet the target of 52 and this is a positive achievement. This is the one Programme target that should not be met.

If the data in the table above is compared to the data of 2013, the implementation of the PMTCT Guideline 2013 appears to have meaningfully contributed to early enrolments onto ART for pregnant women eligible for ART. However, since more women were initiated on ART compared to those that were eligible, it could indicate that the PMTCT Guideline 2013 has an implementation lag time. The study aims to determine if implementing the PMTCT Guideline 2013 has had the envisaged influence in achieving the set policy objectives and ultimately contributing to zero HIV transmission from mother to child, with an end result of an AIDS free generation. The study will evaluate programme implementation taking into consideration indicators such as programmatic issues pertaining to staff performing ART enrolments in the antenatal birthing units, programme resource allocation to allow for ART initiations in these settings, what monitoring systems are used to monitor antenatal ART initiations at the primary health care level, and whether the relevant programme PMTCT indicators have been added to the monitoring and evaluation system to accurately report on the impact of the PMTCT Guideline 2013. Furthermore, the study will assess what post-natal package of care and referral pathways exist to ensure a linkage to care post-delivery of the baby. From a patient perspective the study will establish whether the women initiated on ART are satisfied with the service they received and whether they understand their enrolment on the PMTCT programme.

1.2 Research objectives

The study addressed the following objectives, namely to:

- describe the theoretical framework supporting evaluation research pertaining to programme evaluation;
- describe the policy framework supporting the implementation of the PMTCT Guideline 2013 for the Western Cape Province;
- evaluate the challenges experienced by patients with the operationalisation of the PMTCT Guideline 2013;
- evaluate the challenges experienced by health care practitioners in the implementation of the PMTCT Guideline 2013; and
- propose programme implementation recommendations for enhanced implementation of the PMTCT Guideline 2013.

1.3 Research questions

The specific research questions related to the research objectives are:

- What theoretical framework supports evaluation research pertaining to programme evaluation?
- What policy framework supports the implementation of the PMTCT Guideline 2013?
- What are the challenges patients experienced with the operationalisation of the PMTCT Guideline 2013?
- What are the challenges experienced by health care professionals with the implementation of the PMTCT Guideline 2013?
- What programme recommendations can be proposed for the policy implementation enhancement of the PMTCT Guideline in future?

1.4 Central theoretical statements

The PMTCT Guideline 2013 implementation process saw the Guideline transition from its conceptual theory into practice. Evaluation is the process of distinguishing the worthwhile from the worthless, the precious from the useless: evaluation implies

looking backward in order to be able to steer forward better. Evaluation therefore requires systematic data collection, data analysis and source documentation. A performance standard must be in place for policy evaluation to determine how well the intervention did against the set expectation. Using the systems model, the input (resource/ administration) can be evaluated against the conversion (change) and output of the policy being implemented (Vedung, 1997:80). This is why the specific set of indicators was developed to measure the performance of the PMTCT Guideline implementation against the set Division of Revenue Act (DORA) targets.

Despite the Western Cape Province being a forerunner with the roll out of the HIV Treatment Programme in South Africa, treatment outcomes for retention in care and linkage to care are still below the provincial set target (performance) for DORA. Retention in care is particularly important for a women initiated on treatment during pregnancy, more so if the women has opted to breastfeed the baby. If the woman is not retained in care and not on ART during this period, the risk of transmission to the baby is increased. For all patients, retention in care on ART is essential, as the aim of the Programme is to ensure that the patient remains viral load suppressed which decreases transmission (via sexual intercourse) to others such as the patients' significant others, namely their partners (Arendse, 2015).

1.5 Methodology

The methodology refers to the methods intended to be used for data collection in a research study. In this section the research approach, design, sampling, data collection and analysis is discussed for the study, linked to the central theoretical statements of the proposal.

1.5.1 Approach and design

The study makes use of a mixed method approach. Mixed method research combines methods associated with both quantitative and qualitative research, where the aim is for the quantitative and qualitative methods to supplement each other, increasing the validity and reliability of the study (Bezuidenhout, David & Du Plooy-Cilliers, 2014:15). The use of multiple data collection methods is an attempt to achieve different views and perspectives to come up with an integrated picture of the research problem.

Mixed methods can also be said to be a procedure for collecting, analysing and 'mixing' both numeric information and text information, in order to answer a study question, and acknowledging that the data or the findings are integrated or connected at one or several points within the study. As an approach, mixed methods involve philosophical assumptions that guide the direction of the collection and analysis of data (Bezuidenhout *et al.*, 2014:33).

The value of mixed methods research is that it allows the researcher to simultaneously address a range of confirmatory and explanatory questions, with both qualitative and quantitative approaches verifying and generating theory in the same study. This method provides more evidence than either of these approaches, if used independently. It is practical, it allows the researcher to use all methods possible to address a research problem, combining inductive and deductive reasoning (Bezuidenhout *et al.*, 2014:199).

With the mixed method approach two design options are available, the first being to merge the qualitative and quantitative data in a parallel or concurrent way, and the second being one type of data that will build upon or extend the other group in a sequential way. For this study, the qualitative and quantitative notation is applicable. The qualitative and quantitative data collection will occur at the same time and will be given equal priority in answering the evaluation research question.

Programme evaluation research as a design uses no separate set of research techniques, rather it is the use of research methods to make judgements about the effectiveness, overall merit, worth or value of some form of practice. Evaluation purposes refer to gathering information for improving, developing, formulating and implementing a programme. It can be a process evaluation which describes the process of a programme as it is developed, or a summative evaluation which assesses the impact, outcome or worth of a programme (De Vos, Strydom, Fouche & Delpont *et al.*, 2014:452).

The scope of the evaluation is to provide information to the programme management, the implementers of the programme, the stakeholders and the programme supporters (De Vos *et al.*, 2011:469-470). This study will allow for the divergent views and perspectives to be presented on the multi-faceted PMTCT Guideline (2013). This

study will evaluate the inputs, activities, outputs, outcomes and impact of the PMTCT Guideline of (2013).

1.5.2 Population and sampling

A population can be defined as the sampling frame for the study - it sets the boundaries on the study and refers to the total persons, events, organisation units, case records and other sampling units with which the research problem is concerned (De Vos *et al.*, 2014:223). A sample is a sub-set of the population considered for actual inclusion in the study. Sampling is studied in an effort to understand the population from which it was drawn (De Vos *et al.*, 2014:224-225).

The Western Cape Province has six health districts, one of which is a metropolitan referred to as the metro district, while the other five are of a more rural nature. The rural districts are managed by a district director. The metro district, due to the population density and the burden of disease demands, is divided into four substructures (management areas), with each managed by a director. The health facilities in the substructures are under the direct line management of the substructure directors. Each substructure has a health programme management component (e.g. ART Treatment Programme, HIV Prevention Programme) which act in an advisory capacity to the director and the health services, while maintaining a link to the HAST Directorate (Arendse, 2015).

The HAST Directorate, Facility Based Programmes, along with the Community Based Programme, form the Chief Directorate: Health Programmes. Within each of these directorates there are a number of programmes. In HAST specifically there are five (5) programmes, one of these being the HIV Prevention Programme with its sub-programme, namely the PMTCT Programme, which provides oversight for PMTCT services at the operational and/or service level. Health Programmes, as part of the strategy, and Support and Health Services, constitute the Department of Health. The population for the study is the Western Cape Department of Health (Programmes and Services), inclusive of the primary health care facilities of the City of Cape Town, who by means of a service level agreement offer health care services in the metro district.

For this study, non-probability sampling, the purposive sampling technique also called judgmental sampling, was used. This technique was chosen because it allows for the researcher to use judgement when sampling, based upon the elements that contain

the characteristics and typical attributes that best serve the purpose of the study (De Vos *et al.*, 2011:443-466). Due to cost and time constraints, the study is limited to one sub-substructure of the metro district. The substructure which is most convenient in respect of distance to travel for this study, while also presenting a fair representation of maternal and obstetric units (MOU's), and health care facilities, which are managed by both health care authorities, namely the City of Cape Town and the Metro District Health Services (provincial government), will determine linkage to care and referral experiences of the patients and staff. Currently the HAST Directorate, as part of the Programme monitoring function, routinely collects demographic data, characteristics of participants, retention of and referral data for new ART initiations, patients transferred in and transferred out and patients remaining in care on the ART Programme. The Programme data is captured at facility level on an individual patient name basis, but aggregated at a district and provincial level, from which monthly and quarterly reports are generated for management interrogation, staff dissemination and for the purposes of decision taking (Holtman, 2015).

The measurement reference as a source of information will be the routine health indicators set for PMTCT and ART Programmes, from which the routine monthly and quarterly PMTCT reports are generated. The routine indicators for the PMTCT and ART Programmes are inclusive of the number of women retained and linked to care post-delivery, the number of women who have defaulted treatment, the number of total live births and the number of babies born HIV negative, confirmed with a six-week HIV test. Using monthly and quarterly reports from the electronic monitoring and evaluation systems (Tier.net) for the HIV Treatment Programme is proposed, to establish the number of antenatal HIV infected pregnant women enrolled into ART since the guideline's implementation in the substructure. The sample will be drawn from the period 1 July 2013 to 30 June 2016. This three-year period will allow for the effect of implementation to be assessed more accurately, considering that the study is interested in determining the effect of the guideline's implementation on a pregnancy, as well as the delivery and post-natal follow up of mother and baby. Patient folders of pregnant women that have more than 3 patient visits related to testing HIV positive, being initiated on ART and receiving treatment, will be sampled to allow assessment of the PMTCT Guideline implementation. Therefore, a total of 20 pregnant women

patients initiated on ART during pregnancy in the 12 months post implementation of the PMTCT Guideline at the substructure were sampled for interviews.

For the staff interviews, it was intended for 12 officials to be interviewed, namely the HAST Director, the PMTCT Provincial Coordinator, the substructure PMTCT Coordinator, the substructure HAST Medical Officer, the Facility and Operational Manager and the registered professional nurses at the health facilities. However, at the time of the interviews the HAST Director and the PMTCT Provincial Coordinator post were vacant and past post holders could not be reached. At the beginning of the study exploratory interviews were held with Arendse (2015), Holtman (2015) while confirming interviews were held throughout the research with Goosen (2016), Kruger (2017), Mangoloti (2017), Pere (2017) and Oliver (2017). During these interviews findings were discussed and further elaboration sought. All these interviews were considered expert interviews, purposefully selected and all participants were aware of their names being used as part of the study. They cooperated with a full understanding of all ethical considerations. They are mentioned here, but are handled in the data analysis as supportive of the research participant interviews coded for anonymity.

1.5.3 Instrument used for data collection

Semi-structured interviews were conducted with patients, with their consent, to determine their views on lifelong ART and how they were referred. This was linked to care and what counselling they received. Interviews with management and operational staff will be held. The semi-structured interviews with the patients allowed for the researcher to engage in conversation with the participants, while also obtaining critical information. Interviews will be held with staff to determine what methods are commonly used in the work setting to initiate and encourage post-delivery lifelong ART treatment, how referrals for lifelong ART are done and to ascertain staff opinion on the PMTCT Guideline (2013) implementation. Staff were asked about the implementation challenges they have encountered, if any, and what the operational barriers and the organisational challenges experienced with implementation of the PMTCT Guideline (2013) were.

The semi-structured interview with staff allowed for building rapport with the staff, in order to clarify questions with them. Staff are often working in pressurised

environments and their responses to questionnaires are poor. Face-to-face interviews will address this disadvantage (Bezuidenhout *et al.*, 2014:199).

The sources of data for this study are the routine health indicator sets for the PMTCT and ART programmes. The source documents are the patient records used for collation of the routine monthly reports, the DORA and the annual performance plan.

A literature review of programme evaluation was done and used as an instrument for the study. This gave guidance on what other authors have written about policy evaluation, giving direction to this study. It also ensured that a repetition of what has already been done was avoided. The literature review puts this study into context. It allows for the findings of the study to be explained, in relation to existing knowledge. (de Vos *et al.*, 2011:133-137). Provincial, national and international documents were consulted upon the topic.

For the study the following databases were consulted:

- Catalogue of books: Ferdinand Postma Library (North West University)
- Catalogue of theses and dissertations of South African Universities (NEXUS)
- Google Scholar
- Ebscohost

1.5.4 Data analysis strategy

For the statistical analysis the quantitative data will be converted to a numerical form and subject (De Vos *et al.*, 2011:248-251). Quantitative data can be analysed manually or by a computer. The study will make use of descriptive methods to define the numerical data, allowing for organising, summarising and interpreting the sample data. After collecting the data, a coding procedure to interpret it was conceptualised.

For both the qualitative and quantitative data collected thematic analyses linked to the research objectives of the study were utilised (De Vos *et al.*, 2011:343). Since programme evaluation implies the evaluation of data against set indicators, each of the indicators as identified earlier in this chapter was presented as a theme and qualitative and quantitative data were presented simultaneously for a more integrated understanding of the phenomenon. Each participant (patients and staff) were requested to sign a consent form giving permission for the interview, in particular the recording of the interview. The consent form clarified the nature of the research and

stipulated that all participation is voluntary and that no participant will be identifiable in the analysis of the data.

1.6 Limitations and delimitations of the study

The scope of the research is to determine whether the implementation of the PMTCT Guideline (2013) has achieved its set objectives. This research will not explore the effects that other health policies have had at the operational level, though they might be relevant to the target audience. One such policy that will not be considered in totality is the implementation of Nurse Initiated Management of Patients on ART (NIMART) Policy. This study will not consider whether the maternal and obstetric units have carried out the necessary task of shifting and training that allows nurses to initiate patients on lifelong ART, as opposed to medical officers.

The geographical limitations of the study is that it was planned to be conducted in only one substructure of the metro district, the substructure that is most convenient in respect of distance to travel for this study, while also presenting a fair representation of maternal and obstetric units (MOU's), and health care facilities which are managed by both health care authorities, namely the City of Cape Town and Metro District Health Services (provincial government). This will determine linkage to care and referral experiences of the patients and staff. It will exclude the rural districts of the Province, with the implication that the results of the study will not be applicable to and generalisable to the rural districts of the Province. These districts also have different management and referral structures, when compared to the metro district, while also not having MOU facilities.

1.7 Significance of the study

The study proposes to influence existing public management knowledge on the implementation of policy in a resource poor setting, by proving that the success of policy implementation is rooted in, not only the policy agenda setting process, but in planning too. This study will highlight the benefits of using a top-down and bottom-up approach. Each approach is closely linked to monitoring and evaluating outcomes against set objectives.

The ART Programme commenced in the Province more than 10 years ago, with technical and health systems support from various non-profit organisations and

academic partners. Performing routine programme data analysis (quantitative), along with performing qualitative analysis by engaging the policy recipients, patients and staff on their experiences through consultation are to be considered before further policy amendments/improvements are to be made. This will bridge the gap between policy planning and development and implementation success in the public health sector.

This study provides a critical perspective upon the impact of the PMTCT Guideline (2013), detailing the lessons learned which will assist with further and future policy development for the PMTCT in the Western Cape Province. This is crucial to achieving the zero infection strategic objectives of the PMTCT Programme.

1.8 Chapter-layout

The proposed chapter outline for this proposal is as follows:

Chapter 1: This chapter encompasses the orientation, problem statement, research objectives, questions and methodology. The chapter provides an overview of the historic timeline, as it related to the discovery of AIDS in the international context, the discovery of AIDS on the African continent, the spread of the disease through Africa, and South Africa's response to the disease. It will discuss why this study was selected to be undertaken, as well as the research methods and methodology that were used in conducting the research study.

Chapter 2: This chapter discusses the theory of programme evaluation. A deliberation upon the building blocks for the Prevention of Mother-to-Child Transmission (PMTCT) Guideline (2013), in the Western Cape Province, in the theoretical context of evaluating the programme against the evaluation framework, takes place. This chapter describes the evolution of the PMTCT Programme and its many policies, since the inception of the Programme in South Africa.

Chapter 3: The legislative and policy environment for PMTCT. This chapter includes a discussion of legislation such as the Constitution of the Republic of South Africa and the National Health Act 61 of 2003 and its applicability to the study. These acts provide the legislative framework for the provision of health care services and the treatment of infectious disease such as AIDS. These acts were used by organisations such as the Treatment Action Campaign (TAC) to advocate for treatment as a basic human right.

Chapter 4: This chapter highlights the challenges as identified by patients and staff, according to the evaluation indicators identified, in an effort to improve the public health care patient experience by linking policy enhancements and systems improvements.

Chapter 5: Conclusion and recommendations which provides a critical perspective on the impact of the PMTCT Guideline (2013), while proposing recommendations to assist with further programme implementation for PMTCT in the Western Cape Province.

1.9 Conclusion

Provide the foundation and argument for the study by presenting the orientation and problem statement highlighting the need for the study to be conducted. The chapter identified the research objectives and questions guiding the study and described the research methodology choices made to operationalise the research objectives. The chapter concluded with an explanation of the significance of the study and the chapter lay-out through which the research objectives will be addressed. The following chapter examines the theoretical basis for policy evaluation research.

CHAPTER 2

A THEORETICAL ANALYSIS OF PROGRAMME EVALUATION

2.1 Introduction

This chapter provides a theoretical analysis of programme evaluation, and discusses what the theory of programme evaluation entails while applying it specifically to the PMTCT Programme in the Western Cape Province. The location of programme evaluation within public administration is considered, and the theoretical context for programme evaluation is provided. The chapter also discusses various programme evaluation approaches and programme evaluation frameworks. In this chapter, reflection upon the building blocks of the PMTCT Programme in the Western Cape Province takes place. This chapter further describes the evolution of the PMTCT Programme, since its inception in South Africa.

2.2 Theoretical context of programme evaluation within Public Administration

The Classical Approach of Public Administration theory was first described in the early 20th century, with an emphasis on control and organisational design (Bourgon, 2007: 9). The Approach spoke of a strict separation of political and professional activities, public service anonymity and political neutrality. The elementary features of Public Administration as a discipline include some basis of formal authority, intentionally developed laws and rules, spheres of individual competence which includes task differentiation, specialisation, expertise and or professionalisation, the organisation of persons into groups or categories according to specialisation, coordination of hierarchy and continuity through rules and records. The organisation is distinct from the persons holding offices in it and the development of particular and specific organisational technologies. This Approach was clear and simple but lacked flexibility and responsiveness (Bourgon, 2007: 9-11). According to Dubnick and Frederickson (2012:9798), public administration involves purpose and authority, with features of a merit-based public service, and the separation of administration from politics. Over time the need for flexibility has grown as the public service interaction with its recipient

(the citizen) has increased. The needs of the recipient has increased in diversity and could not always be accommodated within the set parameters of the Classic Approach to Public Administration. One of the underlying principles of the Classic Approach to Public Administration was the separation of policy and politics. However, in practice, public policies not only require political will but are the means by which a desired policy outcome can be achieved through interactions inside and outside of government (Bourgon, 2007:11). The implementation of the PMTCT Programme in the Western Cape Province was possible because of the political drive and commitment to the Programme. The respective policy has changed over the last five years, in particular, the PMTCT Guideline 2013. This was implemented because office holders who used the relevant structures in government to motivate it, ensured that their policy recommendations reached the agenda of management meetings in the Department of Health for decisions making, ratification, and endorsement.

In the era of government-by-performance-management, it is expected of administrators in their management roles to measurably improve the organisations effectiveness, with a strong emphasis being placed on outcomes and performance (Frederickson *et al.*, 2012: 98). With the growing demand to address the scourge of the HIV epidemic, it has become a necessity for public administrators as part of the programme management functions to develop policies to address this need, and to reduce vertical transmission of the HIV infection from mother to baby.

To explain the theoretical context of programme evaluation, the terms *programme* and *evaluation* will be defined separately. A *programme* is time-limited or renewable with specific objectives (Ovretveit, 2010:18). This means that a programme has a beginning and an end. Wholey, Harry, Hatry and Newcomer (2010:5) argue that a programme is a set of resources and activities directed towards one or more common goal, typical under the direction of a single manager or management team. For this study this is the preferred definition of a programme, while *programme evaluation* is defined to be the application of a systematic method to address questions about programme operations, results and impacts (Wholey *et al.*, 2010:6-9).

During its course the programme is evaluated to ascertain its effectiveness in relation to the set objectives. King and Stevahn (2013:12) define evaluation to be the process

of determining the merit, worth, or value of something, or the product of that process, or the systematic collection of information about the activities, characteristics, and results of the programme in order to improve or further develop programme effectiveness, inform decisions about future programming and or increase understanding of the programme. In determining the value of the PMTCT Programme over its life course, it is important to determine if the primary aim which is to decrease the number of HIV infected babies born to HIV positive mothers has been achieved or if progress in achieving this aim has been made (Barron *et al.*, 2013:70).

Evaluation is also defined as the process of distinguishing the worthwhile from the worthless, the precious from the useless: evaluation implies looking backwards in order to be able to steer forward better. Evaluation therefore requires systematic data collection, data analysis and source documentation. A performance standard must be in place for policy evaluation to determine how well the intervention did against the set expectation. In simple terms evaluation compares what is with what should be. It is therefore important to establish if the social programme being evaluated has clear statements of goals, which allows for a judgement to be made against a criteria (King & Stevahn, 2013:12). The PMTCT statement of goals is to be an integrated programme, offering a HIV counselling and Testing (HCT), triple drug regimen, post-natal follow support for mother and baby, offering this comprehensive package should lead to virtual paediatric HIV elimination by 2020. Following the national PMTCT programme evaluation in 2005, a set of PMTCT Indicators also referred to as the PMTCT dashboard was included in the DHP to monitor progress against this performance standard (Barron *et al.*, 2013:70).

According to Mizikaci (2008:37), programme evaluation can be defined as a systematic operation of varying complexity involving data collection, observations and analyses in a value judgment with regard to quality of the programme being evaluated, considered in its entirety, or through one or more of its components. Mizikaci (2008:37) further describes evaluation as the means of arriving at a value judgment on the basis of measures (qualitative or quantitative) considered to be valid and reliable, which compares the actual results of a program with anticipated results. While a programme is defined to be to be coherent, organised and structured whole composed of objectives, activities and means. What helps is to think of a programme in terms of

inputs, processes, outputs and outcomes, the inputs being the resources needed to run the programme, the processes is how the programme is carried out, the outputs are the units of service and the outcome are the impacts on the customers (Mizikaci, 2008:417).

From these definitions, in a policy environment, *evaluation* is research applied to answering policy orientated questions, the primary aim of evaluation is to aid stakeholders in decision making on policies and programmes, which involves making a judgment (Alkin, 2004:127). Evaluation research is also said to be a way to increase the rationality of policy making, with objective information on the outcomes of programs. Programs that yield good results will be expanded while those showing poor results will be abandoned or drastically modified (Weiss, 1972:165). In the Western Cape Province, owing to a specific set of indicators to measure the performance of the PMTCT programme, the programme expanded over time as it reached its assessment milestones and targets (Barron *et al.*, 2013:70).

With programme evaluation defined to be a process of systematic inquiry to provide sound information about the characteristics, activities, or outcomes of a programme or policy, the evaluators need to establish the study's purpose or purposes, provide sound information about the object being studied and the information collected must be from transparent procedures that ensure data quality (King & Stevahn, 2013:13). To conduct an evaluation an interactive evaluation practice is needed. An interactive evaluation practice includes having the following skills: written communication skills, verbal/listening skills, negotiation skills, conflict resolution skills, constructive interpersonal interaction and cross-cultural competence. These skills and competencies will build thoughtful interaction between and among the evaluator and the programme leaders, staff and other stakeholders (King & Stevahn, 2013:13).

In conducting the evaluation, the purpose of this study is to establish whether the programme goals have been achieved, while making recommendations for increasing the programme's effectiveness or modifying the programme. Thus it is critical for the study to recognise the importance of an interactive evaluation practice. As previously stated, an interactive evaluation practice is a form of inquiry, along with operational action research and theoretical research. Inquiry broadly encompasses seven basic

tasks: framing questions, determining an appropriate design, identifying samples or data sources, collecting data, analysing data (organising results), interpreting results, including drawing implications or making recommendations and reporting and disseminating the findings (King and Stevahn, 2013:13). With this study the patients and health care practitioner's experiences and practice in implementing the PMTCT Guideline 2013 will be evaluated. Following the interviews, the results will be analysed before any conclusions will be drawn and recommendations made for policy enhancement. With clear definitions on programme evaluation the approaches to programme evaluation requires discussion.

2.3 Approaches to programme evaluation

An approach to programme evaluation can be regarded as the methodology used to perform the evaluation. The benefits of using or incorporating components of several approaches is to enhance the viability and validity of programme evaluations, it assists with better understanding the needs of stakeholders and programme recipients and yielding more accurate recommendations by which to enhance programme development and change (Bledsoe & Graham, 2005:303).

As previously stated there are multiple approaches that could be used namely participatory; mix of qualitative and quantitative, empowerment and system approaches (Mercado-Mertinez, Tejada-Tayabas & Springett, 2012:1277-1279). What these approaches share is a belief that stakeholders should be actively involved in the whole process of evaluation, which is not a linear process rather a process responsive to changing circumstances. Stakeholder involvement in the process can be from decision making, to design, to collection of data and analysis (Mercado-Mertinez *et al.*, 2012:1277-1279).

When selecting programmes to evaluate resources available to conduct the evaluation should be considered. According to Wholey *et al.*, (2010:7), five basic questions should be asked when any programme is being considered for evaluation:

- Can results of the evaluation influence decisions about the programme?
- Can the evaluation be done in time to be useful?
- Is the programme significant enough to merit evaluation?

- Is programme performance viewed as problematic?
- Where is the programme in its development?

The participatory approach incorporates the perspective of those stakeholders with vested interest to define the needs most important in the programme. The theory driven approach is defined as using a synthesis of both stakeholder programme logic and social science theory to define what a programme does, in what manner, and how much of an effect each goal and objective can have on an outcome (Bledsoe & Graham, 2005:307-308).

In using a mixed method approach (a combination of qualitative and quantitative) the quantitative approach concentrates on numeric data collection; and at the point of analysis the evaluator derives meaning from the data in order to answer the central question/s. To make sense of the data collected the evaluator asks the following questions (Bledsoe & Graham, 2005:307-308):

- What went on in the programme over time – who were the actors, what are the activities and services?
- Did the programme follow its original plan?
- What have the benefits to the recipients been?
- Is the observed change due to the programme?
- What has been the worth or cost benefit of the programme?
- Through what processes did change take place over time?
- Have any unexpected events and outcomes been observed? (Bledsoe & Graham, 2005:307-308)

With qualitative approaches, it means taking an inductive and open ended approach. Qualitative data are typically words and images. The most common qualitative data collection tools are interviews and participant observations. Mixed methods evaluation simply means a combination of quantitative and qualitative methods (Wholey *et al.*, 2010: 9-10). The empowerment evaluation approach involves the inclusion of organisational stakeholders in the development of long-term, user friendly programme evaluation systems. Capacity is built with the stakeholders to design and manage future programme monitoring and evaluations (Bledsoe & Graham, 2005: 309).The

systems approach integrates the analytical and synthetic methods, encompassing both holism and reductionism. Based on these assumptions there are universal principles of organisation, which hold true for all systems. The basic principle of the systems approach is that the whole is more than the sum of its parts, the whole determines the nature of the parts, and the parts are dynamically interrelated and cannot be understood in isolation from the whole (Mizikaci, 2008:43).

The PMTCT programme was selected to be evaluated as it is a high priority programme in the social and health context. The goals of the programme was based on the perception that the interventions of early ART initiation of HIV positive pregnant mothers and life ART for the HIV positive pregnant mothers would decrease the vertical transmission of the HIV infection from mother to baby. It is important to determine if the primary aim of decreasing the number of HIV infected babies born to HIV positive mothers has been achieved or if progress in achieving this aim has been made (Barron *et al.*, 2013:70).

When deciding which programme to evaluate the following questions are to be asked (Posavac, 2015:14):

- Can the results of the evaluation influence decisions about the programmes?
- Can the evaluation be done in time to be useful?
- Is the programme significant enough to merit evaluation?
- Is the programme performance viewed as problematic?
- Where is the programme in its development?

For this study the focus is on the relevance of the Programme's changes over time and the value added. The PMTCT Programme is a well-established Programme in the Western Cape Province, receiving considerable political support. The evaluation type used is a mixed method approach, a combination of qualitative and quantitative as the aim is to measure programme performance and impact over time, while also ensuring the programme outcomes and impacts can be linked to the programme activities. The programme is a significant enough to evaluate as South Africa continues to have high HIV incidence context. In line with the National Development Plan (NDP) 2030, the UN Sustainable Development Goals and UNAIDS 90-90-90 targets of 2020, the

Minister of Health, announced during his budget speech on the 10th May 2016, the roll out of Universal Test and Treat, acknowledging that the HIV epidemic still poses many challenges for the country (Pere, 2017). The programme, although running for several years has had several policy changes thus relevant to evaluate and the finding will be relevant to future policy changes and programme changes.

The mixed method approach is ideal for the study as it calls for contextual understanding of participants' experiences and perceptions of the implementation of the PMTCT Guideline 2013. The aim for both quantitative and qualitative data collection is to supplement each other so as to increase the validity and reliability of the study (Du Plooy *et al.*, 2014:15)

Quantitative data collection explores variables routinely collected. The measurement reference as a source of information is the routine health indicators set for PMTCT and ART Programmes, from which the routine monthly and quarterly PMTCT reports are generated. The routine indicators for the PMTCT and ART Programmes are inclusive of the number of women retained and linked to care post-delivery, the number of women who have defaulted treatment, the number of total live births and the number of babies born HIV negative, confirmed with a six-week HIV test. Using monthly and quarterly reports from the electronic monitoring and evaluation systems (Tier.net) for the HIV Treatment Programme is proposed, to establish the number of antenatal HIV infected pregnant women enrolled into ART since the guideline's implementation in the substructure. Programmatic data has been obtained from paper-based clinical records and electronic database. For qualitative data collection semi-structured interviews were conducted with patients, with their consent, to determine their views on lifelong ART and how they were referred. This is linked to care and what counselling they have received. Interviews with management and operational staff were also conducted. The semi-structured interviews with the patients allows for the researcher to engage in conversation with the participants, while also obtaining critical information. Interviews were conducted with staff to determine what methods are commonly used in the work setting to initiate and encourage post-delivery lifelong ART treatment, and to determine how referrals for lifelong ART are done and to ascertain staff opinion on the PMTCT Guideline 2013 implementation. With clear definitions on

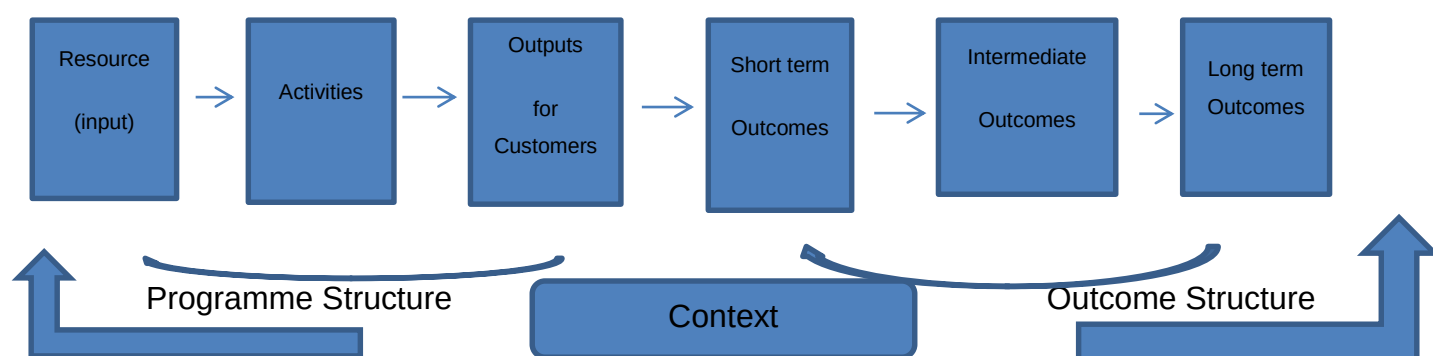
programme evaluation and the approaches to programme evaluation described the tools for programme evaluation requires consideration.

2.4 Evaluation frameworks

An evaluation framework lists the components of a programme and provides the structure for the evaluation. The Logic Framework tool serves as a useful advance organiser when evaluations studies are designed or planned. It maintains focus on the important elements of the programme and identifies the kinds of evaluative questions to be asked and why. This tool can be used at any point in the life course of the programme (Wholey *et al.*, 2010: 55).

The Logic Framework is a plausible and sensible framework of how a programme will work under certain environmental conditions to solve identified problems. Its elements are resources, activities, outputs, short-term, intermediate-term and long term outcomes (Wholey *et al.*, 2010:57-59).

Figure 2.1: Basic Logic Framework



Source: Wholey *et al.* (2010:57)

Yearly significant financial investments are made to improve public programmes such as health and social welfare programmes. To assess the impact of these systematic and transparent use of research evidence are needed in helping to ensure well informed policy decisions (Wholey *et al.*, 2010:2-3).

A second evaluation framework, namely the *Getting to Zero Outcomes Framework* is defined as the degree to which a best practice programme is compatible to the community context, for example, when a new programme is implemented in a community the primary consideration is to ensure that the new improvement or programme has the potential to enhance existing programme efforts and does not detract from or interfere with existing ones (Wandersman *et al.*, 2000:392).

The Getting to Zero Outcomes framework is depicted below and it is divided into a planning and evaluation phase, during the planning phase the needs, goals and best practices are defined for the intervention. While the evaluation phase concentrates on the outcome of implementing the intervention in the community. This study does not define the goals and best practices for the PMTCT Guideline 2013, but focuses on the PMTCT programme objectives and goals to assess if the overall objective of the programme has been achieved by the introduction of multiple policy changes over time.

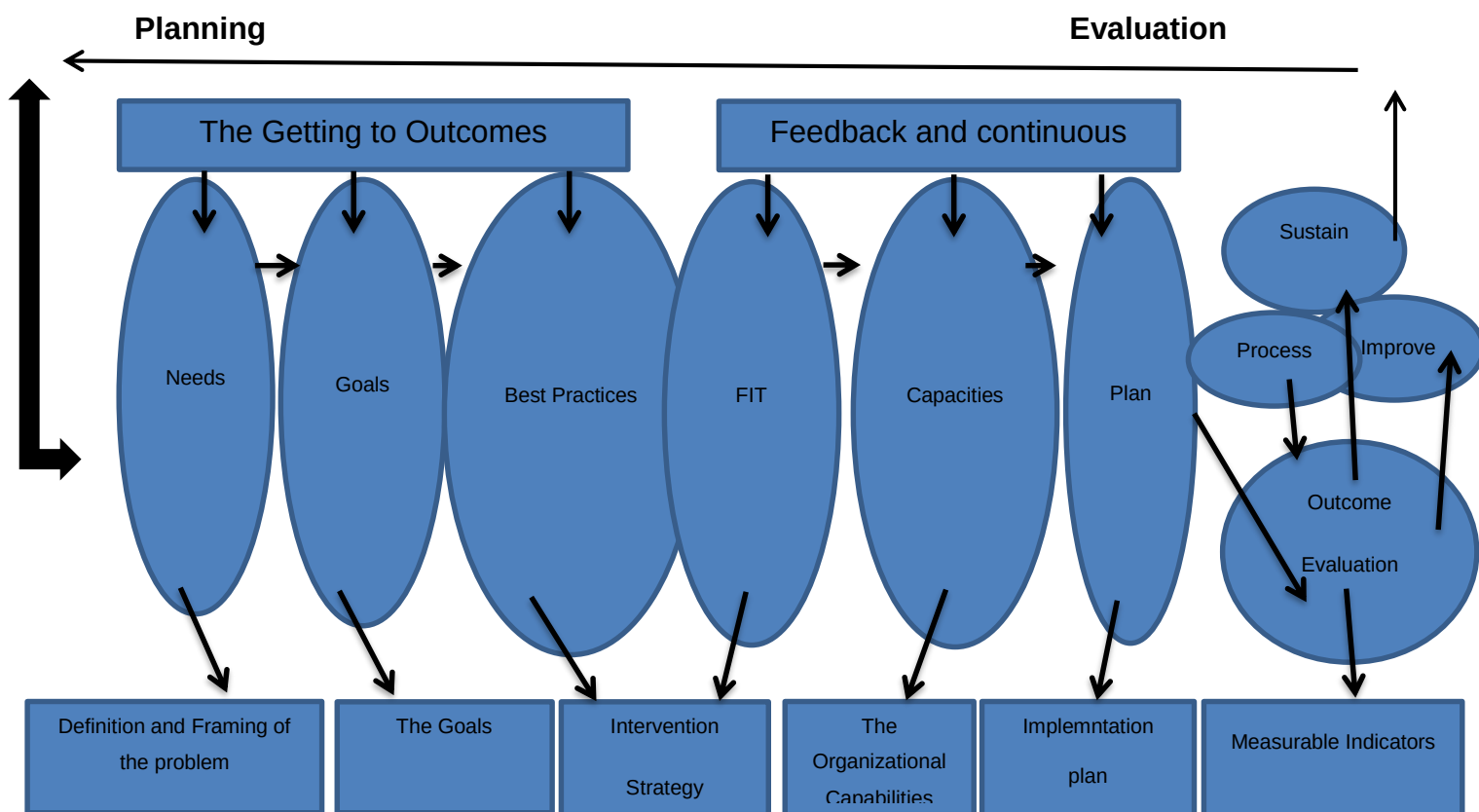


Figure 2.2: The Getting to Zero Outcomes Framework (Wanderman *et al.*, 2000:39)

This study evaluates whether the policy changes in the PMTCT programme over time, more specifically if the PMTCT Guideline 2013 policy change has enhanced the lives

of the pregnant HIV+ women, her family and the extended community. This is done using a mixed-method evaluation approach as previously explained. For this study the Basic Logic Framework tool is applied to evaluate the PMTCT Programme impacts rather than the outcomes framework of Getting to Zero. The Logic Framework is applicable to this research study from a pragmatic perspective. This study does not include community readiness and acceptance of the PMTCT Programme.

Programme evaluation should be done at regular intervals of three to five years for long term programmes. There are significant yearly financial investments made to improve these public programmes and the return on investment should be critically evaluated to ensure there is value add for the end user and the community. Programme managers should be trained to participate in these formal evaluations but to maintain objectivity academic partners and non-profit organisations should be contracted to co-conduct these evaluations. This will inform management decisions in relation to the programme's performance (Habicht *et al.*, 1999: 10-12)

Each time the PMTCT programme is evaluated to assess the impact of a policy change the same approach and tools should be applied over time to ensure consistency with results and recommendations. For a programme such as the PMTCT programme a mixed method approach is recommended and the Logic Framework tool due to its pragmatic application. These formal evaluations assist with providing a context and baseline when new management, role players and stakeholders join the programme, while documenting the rich history of programme as we move towards elimination of vertical transmissions.

2.5 The Evolution of the PMTCT Programme

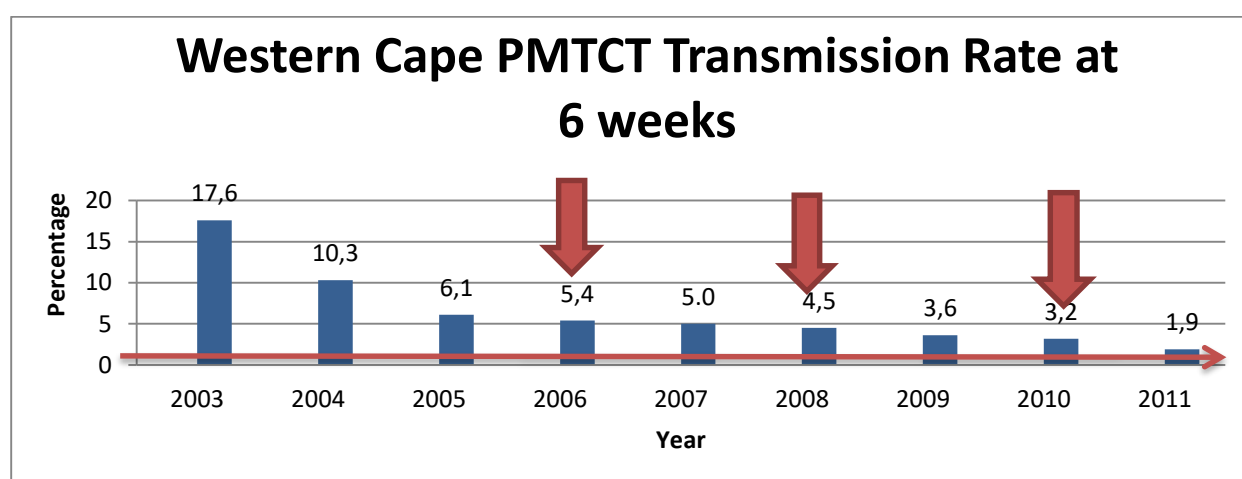
As discussed in detail in chapter one, the National PMTCT 2010 policy guideline formally introduced the PMTCT programme of South Africa. The objectives of this Guideline were the prevention of new HIV infections as per the NSP, 2007-2011. Particularly, the Guideline focused on preventing transmission of the virus from women infected to her unborn child and providing support to women living with HIV and their families (South African National AIDS Council, 2010:8). The NSP 2012 –

2016, also listed the decrease of the number of new HIV infections as an objective (South African National AIDS Council, 2012:4-18).

In the Western Cape context, the respective NSPs gave rise to several policy changes in the Province with the aim to realise the objectives of the NSPs. Key considerations for the Province when making these policy decisions were centered on the resources needed to implement the intended policy changes, the sustainability of systems once realised operationally and the benefit to the programme and patients versus cost implications (Kruger, 2017).

For the PMTCT Programme data review revealed that with every policy change a decrease in transmission from mother to baby was noted at six weeks after giving birth. After additional human resources in the form of the PMTCT Coordinators were allocated to the Programme in 2010, the Western Cape Province for the first time achieved the target of a transmission rate below 2.5% (Department of Health, Western Cape 2014:1). The Graph below indicates the provincial performance on the routine PMTCT Programme indicator: PMTCT transmission rate at six weeks in the Western Cape, for the period 2003 to 2011.

Figure 2.3: PMTCT transmission rate at six weeks in the Western Cape



Source: Department of Health, Western Cape (2012)

In 2006 the PMTCT programme was formally launched in the Province with dedicated resources (Kruger, 2017). In 2008, dual therapy was introduced while in 2010,

dedicated PMTCT coordinators were appointed to focus on early booking interventions, post-natal follow up and linkage to care for mother and baby after delivery. From the above graph it appears these programme interventions resulted in reduced transmissions rates at six weeks (Kruger, 2017). The routine indicators set for the PMTCT and ART programmes list data elements for the number of women retained and linked to care post-delivery, the number of women who have defaulted treatment, the number of total live births and the number of babies born HIV negative, confirmed with a six week HIV test. These are the indicators that the study uses as part of the quantitative data collection process.

2.6 Conclusion

The chapter described policy evaluation from a theoretical perspective, providing information regarding evaluation frameworks and their applicability to the study. The chapter addresses the first study objective which focuses on describing the theoretical framework supporting the study. In the following chapter the legislative and policy framework enabling the implementation and evaluation of the public policy will be analysed.

CHAPTER 3

THE LEGISLATIVE FRAMEWORK FOR THE PROVISION OF HEALTH CARE SERVICES AND THE EVALUATION THEREOF

3.1 Introduction

This chapter presents the legislative framework for the provision of health care services and treatment of infectious diseases such as HIV/AIDS, both globally and locally. A review of past events in this chapter provides the context of PMTCT, both internationally and nationally. The Declaration of Human Rights (1948) as adopted by the United Nations (UN), is discussed as a foundation for human rights policies for member countries of the UN (Ki-Moon, 2010).

The link between human rights, the Millennium Development Goals and the Sustainable Development Goals is discussed, highlighting the achievements and challenges of the Millennium Development Goals and why it was necessary to adopt the Sustainable Development Goals in 2015 (Miyazawa, 2012). For South Africa, legislation such as the Constitution of the Republic of South Africa (1996) and the National Health Act 61 (2003) is discussed. These acts were used by organisations such as the TAC to advocate for HIV/AIDS treatment as a basic human right in South Africa. This chapter finally discusses the current policy framework that enables health care and specifically HIV/AIDS care and treatment to women and children.

3.2 International policies pertaining to women, children and health care

The UN is an intergovernmental organisation with the core objectives of maintaining international peace, promoting human rights and fostering economic and social development (Hogerzeil, Samson, Casanovas & Rahmani-Ocora, 2006:306). The General Assembly of the UN on 10 December 1948 ratified the Universal Declaration of Human Rights, a guiding document stating, for the first time, what the international community considered to be the basic human rights and freedoms to which every human being is entitled. The declaration was not binding on member states, nor was it enforceable, but was perceived as a first step in the human rights process (Morsink, 1999:3-5). Member countries for the first time had a guiding document with which to

work as a baseline, in order to develop their own human rights policies for implementation in their countries.

The Universal Declaration of Human Rights (1948) argues that everyone has the right to an adequate standard of living, good health for himself or herself and his or her family, including food, medical care and the necessary social services (Hogerzeil *et al.*, 2006:306). Apart from the UN, the principles contained in the World Health Organisation (WHO) Constitution (1946) state that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief and economic or social condition (Hogerzeil *et al.*, 2006:306-307). In Chapter Two, Article ii (g-l) of the WHO Constitution (1946) the promotion of good child and maternal health is listed, to effect the principles of this constitution.

Since 1948, declarations and treaties affirming the underlying principles of human rights, inclusive of the right of women and children to healthcare, have been adopted. The European Convention on Human Rights (1950) affirmed the rights to life, physical integrity and privacy (Andorno, 2005:133). The International Covenant on Civil and Political Rights (1966) affirmed the prohibition of inhuman or degrading treatment, of any form of discrimination, and recognised the right of everyone to the highest attainable standard of physical and mental health. Article 12.2 of the Covenant (1966) outlines steps that countries need to follow in order to achieve the realisation of maternal and child health (Tarantola, 2000:87). While these global documents serve as a basis for the realisation of human rights, this was particularly important for those across the world infected and affected with HIV and AIDS, as their survival depended upon the enforcement of these human rights (Hogerzeil *et al.*, 2006:186). In Chapter one of the dissertation, the development of HIV/AIDS was described with particular attention to the global reaction which created a need for a global policy recognition and response to the epidemic.

In 2003, the UN Secretary General declared that AIDS “has a woman’s face” (Hestermeyer, 2007:106; Kim, 2005:89). This was due to women accounting for half of the people living with HIV, while in Sub-Saharan Africa women aged 15-24

accounted for 57% of people living with HIV. This can be attributed to the low socio-economic status of women in Sub-Saharan Africa who are exposed to poverty, domestic violence, and unemployment, and are dependent on their partners for financial support. In these circumstances women are not able to negotiate for safe sexual behaviour, making women more susceptible to acquiring HIV/AIDS. Women are often forced to trade sex for financial support (Hestermeyer, 2007:106; Kim, 2005:89). For these reasons the policies in the health arena direct attention to women.

The Millennium Development Goals were drafted by the UN in 2000 at the Millennium Summit held in the United States of America (Barnes, 2010:119). These goals are linked to the human rights of every individual, as they strive to achieve a reduction in deaths and improve the health status for all, in particular women and children. The Millennium Development Goals focused attention, resources and accountability on a smaller number of focused health goals for low and middle income countries, creating global awareness of the goals, rallying for political commitment and creating public pressure to achieve these goals. Of the eight Millennium Development Goals, three are specifically focused on health. Goals four to six are focused on a reduction in the number of under-five child mortality cases, a reduction in maternal mortality cases and access to reproductive health care, and the reduction of HIV/AIDS, tuberculosis and malaria (Buse & Hawkes, 2015:1-8). The Sustainable Development Goals constitute the successor framework to the Millennium Development Goals.

At the United Nations Rio +20 Summit held in Brazil in 2012, governments committed to developing a set of integrated goals that would replace the Millennium Development Goals in 2015. A set of six goals with targets to be achieved by 2030 was agreed upon. As with the Millennium Development Goals, the goal-setting approach was used. This was effective in harnessing public and policy support and channeling the funds to reach these goals (Griggs *et al.*, 2013:305-306). Table 3.1 provides an overview of how the Millennium Development Goals compared to the Sustainable Development Goals.

Table 3.1: The Millennium Development Goals versus the Sustainable Development Goals at face value

The Millennium Development Goals	Overarching Sustainable Development Goals and Cross Cutting Themes
1. Eradicate extreme poverty and hunger 2. Achieve universal primary education 3. Promote equality and empower women 4. Reduce child mortality 5. Improve maternal health 6. Combat HIV/AIDS, Malaria and other diseases 7. Ensure environmental sustainability 8. Develop a global partnership for development	1. Poverty eradication 2. Environmental sustainability 3. Sustainable consumption and production The goals have cross-cutting themes and approaches: 1. Protecting and managing the natural resources base of economic development 2. Sustainable development in a globalised world 3. Health and sustainable development 4. Gender and equity

Source: Barnes (2010:138); Ikuho (2012:2-4)

In Table 3.1 above, the Millennium Development Goals and Sustainable Development Goals are listed to illustrate their similarities and differences. The Sustainable Development Goals are focused on sustainable food systems and the stabilisation of the world population, to ensure the sustaining of this generation. Every country will promote the wellbeing of all their citizens, enabling all citizens to reach their potential, irrespective of class, gender, religion or race (Sachs, 2012:2206). The phrasing of the Sustainable Development Goals is more complicated and comprehensive in comparison to the Millennium Development Goals. The Sustainable Development Goals are listed according to three themes, including poverty eradication, environmental sustainability and sustainable consumption and production, while the

Millennium Development Goals were eight simply stated goals which the public could identify with and were easy to remember (Griggs *et al.*, 2013:305-306).

Since 2005, concerns have been raised with regard to the progress Sub-Saharan Africa has made in achieving the Millennium Development Goals, and by 2007, the UN indicated that Sub-Saharan Africa was on a trajectory to miss the targets on all goals (Easterly, 2009:26). Sachs (2012:126) argued that since Africa is a developing continent where poverty and unemployment are rife, the lack of progress was not surprising. By 2014 the progress reported on Goal four was a decrease of 47% for under-five child mortality. For Goal five, maternal deaths decreased by 45% between 1990 and 2012, while for Goal six, which is to reverse HIV/AIDS with universal access to treatment for all those who need it, Sub-Saharan Africa reported a 38% decline in new adult HIV infections between 2001 and 2013 (Buse & Hawkes, 2015:3). Given the challenges of poverty and unemployment, these achievements are commendable for Sub-Saharan Africa.

South Africa is one of only 12 countries in which mortality rates for children increased since the establishment of the baseline for the Millennium Development Goals in 1990. For South Africa, the contributing factors to the non-achievement of the targets per goal were continued poverty, unemployment, racial segregation, gender violence and the HIV/AIDS epidemic (Chopra, Daviaud, Pattinson, Fonn & Lawn, 2009:835-846). Thus, with the realisation that developing countries are unable to meet the Millennium Development Goals, the UN embarked on establishing an alternative framework to address widespread social and economic issues.

On the one hand the Millennium Development Goals recognised the triple threat facing Africa, namely poverty, gender inequality and HIV/AIDS, and stated these as individual goals, which could easily be monitored. On the other hand, the Sustainable Development Goals integrate HIV and AIDS into the broader development goals as a means of ensuring that a more comprehensive response is received from all sectors of government. However, this makes progress on halting HIV and AIDS difficult to monitor. The Sustainable Development Goals integrate health needs through gender empowerment and equity, where women are educated on their basic rights, are equipped to read and write and seek employment, while contributing to the sustainable development of their countries (Griggs *et al.*, 2013:305-306). South Africa, as a

member state of the UN, subscribes to these goals and remains accountable to the achievement of these goals (Griggs *et al.*, 2013:305-306).

The Sustainable Development Goals address economic development, environmental sustainability and social inclusion (Sachs, 2012:2206). The first Sustainable Development Goal combines a number of the Millennium Development Goals into one Goal focusing on health and well-being and thriving lives and livelihood, ending poverty through access to education, employment and information, better health and housing, and reduced inequality, while moving towards sustainable consumption and production (Griggs *et al.*, 2013:305-306). As with the Millennium Development Goals, the intention is to improve the health of people globally and reduce deaths due to treatable diseases such as HIV/AIDS.

The global aims towards comprehensive health care and welfare has provided the platform from which countries develop their individual plans and programmes. The study recognises that the global framework in support of human rights and specifically women's and children's rights enables individual countries, such as South Africa, to create an equally enabling environment to address the social and economic issues that influence the health and well-being of women and children. In the next section particular attention will be drawn to the regional policies pertaining to women, children and their health.

On the African continent the African Charter on Human Rights and People's Rights was adopted by the African Union in July 2003. The charter addressed discrimination and stigma and the rights of women and children to health and essential lifesaving treatments (Andorno, 2005:133-135). Article two of the African Charter on Human Rights and People's Rights (2003) prohibits discrimination on the basis of race, sex, language, religion, wealth, birth or other status. Article three argues for the right to respect, while Article four ensures women the right to life, integrity and security. Article 14 of this charter discusses the health and reproductive health rights of women. This includes sexual health rights, stating that women have the right to choose when to have children, which contraceptive methods they wish to use, and also the right to request their husband or partner to use condoms for protection against contracting sexually transmitted infections such as HIV and AIDS. These articles aid the empowerment of women, giving them the freedom to decide for themselves, and also

to protect women from being oppressed (African Charter on Human Rights and People's Rights as adopted by the African Union in July 2003).

These international frameworks have been used in South Africa to encourage the high courts to uphold the rights of those women infected with HIV and AIDS, ensuring access to health care inclusive of anti-retroviral treatment (Tarantola, 2000:87). At a country level, South Africa needs to internalise these global objectives by developing policies which would realise their intent. Constitutionally, South Africa has developed a Bill of Rights in which these human rights are entrenched. The concomitant constitutional obligations towards the health and wellbeing of women and children are described in the next section.

3.3 Constitutional obligations of the state

Apartheid reigned in South Africa for the period 1948 to 1994, with separate government structures, including health care structures and policies, for white and black South Africans. Black South Africans were denied access to economic, social and political status, ignoring the basic human rights of this marginalised population (Wilson, 2001:3-4). This subset of the population had access only to substandard health care under the apartheid government, while their human rights to enjoy the highest attainable standards of health care were not upheld. Following the first democratic elections of South Africa in 1994, the quest to build a culture of human rights began in the country. The new government needed to establish an equitable national health care system to give effect to the constitutional undertaking to narrow racial disparities in health care (Cooper, 2004:72).

In 1994, the Department of Health adopted the Primary Health Care (PHC) approach as the philosophical and structural orientation of the South African health care system. The adoption of this approach emphasised health as a human right. To redress the past neglect of black women, free PHC was introduced targeting women and children's health (Cooper, 2004:72). In 1995 the National Department of Health established the first Mother, Child and Women's Directorate, with the objectives to increase women's access to appropriate health services, to ensure that approaches to health service delivery were consistent with the goal of increasing gender equity, and to provide services to women that facilitated the achievement of optimal sexual and reproductive health (Cooper, 2004:73-74). Along with the 1998 Population Policy, which focused

on the empowerment of women, allowing them to make informed sexual and reproductive health decisions, it also gave effect to the rights of women as stipulated in the Constitution (Cooper, 2004:73-74).

Chapter two of the Constitution of the Republic of South Africa, 1996, focuses on the rights of the people of the country, and states in Section 7(1) that the state has the responsibility of protecting, promoting and respecting the rights of citizens. Chapter two also focuses on the inherent dignity and the right of citizens to have their dignity respected and protected, and outlaws discrimination on the basis of sex, gender and sexual orientation. Section 12(2) of the Bill of Rights confers to everyone the right to bodily and psychological integrity, which includes the right to make decisions concerning reproduction and control over their body (Constitution of Republic of South Africa, 1996). Chapter one section 2c (i-iii) of the Constitution speaks about respecting, protecting and promoting the constitutional rights of South Africans to health care services, in particular those of the vulnerable groups such as women and children (South African Parliament, 2003:30). These sections are meant to translate into policy which is operationalised to ensure that the citizens of South Africa enjoy the highest standards of health. These rights allow women to make decisions concerning their reproductive health and to exercise control over their bodies. Thus when a pregnant woman is tested positive for HIV and AIDS, she can decide to commence ART or not, without consulting her husband or partner, and is not under any obligation to disclose her HIV status. Following the birth of the baby, the women can again decide if she will continue with ART and whether she will allow ART administration for the baby. The woman can consent to using a contraceptive method following the delivery of the baby to prevent future pregnancies. Being able to take these decisions independently is a significant milestone for women in South Africa. It allows immediate medical treatment to be administered and can save the lives of many women and children infected with HIV and AIDS, as the consent of the husband or partner or father is not required (South African Parliament, 2003:30)

As a point of departure, taking into account the statements above, the study argues that the constitutional obligation of the state reflects an intention towards promoting and protecting the health rights of women and children. In order to realise these

obligations, the state should develop national policies that will emphasise the dignified health treatment of women and children, as it will be described in the following section.

3.4 National policy and legislative frameworks

South Africa has a comprehensive statutory and common law framework that deals with the rights of People Living with HIV and AIDS (PLWHA). Key legislative frameworks include the National Health Act (61 of 2003) and the Labour Relations Act (66 of 1995) which outlaws discrimination and protects workers from being dismissed simply because they are HIV positive, and the Occupational Health and Safety Act (85 of 1993) that forbids pre-employment testing for HIV (National Department of Health, 2006:110).

The National Health Act (61 of 2003) provides a framework for a structured uniform health system within the Republic of South Africa. This Act makes reference to Section 27(3) of the Constitution (1996) in which no one may be refused emergency medical treatment, and Section 28(1)(c) in which every child has the right to basic health care services (South Africa, 1996). Using this framework, the District Health Care System (DHS) was shaped and PHC Care was the vehicle for implementing the DHS. This act gives guidance on policy drafting and policy implementation by the respective spheres of government (South Africa, 1996).

The policy process starts at the national sphere, with the Director-General identifying national health goals and priorities; monitoring the progress on implementation of these goals and priorities; facilitating and promoting the provision of health services for the management, prevention and control of communicable diseases inclusive of HIV, AIDS, and non-communicable diseases; and preparing strategic and medium term health plans (South African Parliament, 2003:32).

At the provincial sphere, the head of health plans, co-ordinates and monitors health services and evaluates the rendering of health services. The head also controls the quality of health services, consults communities on health matters, facilitates and promotes the provision of provincial health services for the management, prevention and control of communicable diseases inclusive of HIV and AIDS and non-communicable diseases, and prepares provincial strategic and medium term health

plans for the national Director-General of Health (South African Parliament, 2003:32). In the following section, the national strategic plans drafted by the national Director-General of Health will be discussed.

In 1999, the Government of South Africa launched the National HIV/AIDS and STD Strategic Plan (NSP) (2000–2005) for South Africa, in response to the epidemic which the country was facing. The Plan was a replica of the strategic plan template provided by the UN and the cornerstone of the South African Government's response to the HIV and AIDS epidemic (Albertyn, 2003:395). To drive the implementation of the HIV/AIDS and STD Strategic Plan 2000–2005, the South African Government created a structure, namely the South African AIDS Council (SANAC), as an institutional structure at the national sphere of government (Wouters, Van Rensburg & Meulemans, 2010:171-185). Civil society was represented in this structure, to ensure that the needs of the South African citizens were considered during policy drafting and implementation by government. The SANAC has a sector level coordination function, in that each sector in government takes responsibility for their own strategic plans, programmes, and monitoring of their performance, in the combating of the HIV and AIDS epidemic. They further report on these plans and programmes to the SANAC. The high level council meetings of the SANAC are chaired by the Deputy President of South Africa (National Department of Health, 2007:9). The Constitution of the Republic of South Africa (1996) Chapter two, focuses on the rights of the people of the country and states in Section 7(1) that the state has the responsibility of protecting, promoting and respecting the rights of citizens. This was the purpose of civil society representation on the SANAC, as they were the voice of the people. Civil society needed to ensure that Chapter two of the Constitution, which speaks of protecting the inherent dignity and the right of citizens regardless of sex, gender and sexual orientation, be upheld (South African Parliament, 2003:30). The primary objectives of the National HIV/AIDS and STD Strategic Plan (2000–2005) were to (National Department of Health, 2006:27-36):

- promote improved health seeking behaviour and adoption of safe sex practices;
- broaden the responsibility for the prevention of HIV to all sectors of government and civil society;

- develop and implement counseling and care programmes for all national government departments;
- implement HIV and AIDS prevention for migrants; and
- improve access to and use of male and female condoms, especially amongst 15-25 year olds.

The National HIV/AIDS and STI Strategic Plan (2000-2005), gave direction to all stakeholders in the country with the vast majority incorporating in their strategic plans the abovementioned National Strategic Plan objectives as key priorities. The National HIV/AIDS and STI Strategic Plan (2000-2005) promoted the implementation and the voluntary counselling and testing (VCT) and PMTCT programmes, however these were introduced as vertical programmes and not integrated into the standard package of PHC services (National Department of Health, 2006:27-36).

With these vertical programmes the stigma attached to the HIV and AIDS epidemic continued to be fueled in South Africa. These patients were treated at centralised health care facilities by specialist teams, thus patients visiting these facilities were easily identified as being infected with the disease (National Department of Health, 2006:27-36). Health facilities rendering these services went through a strict national accreditation process. Once all the criteria were met by the health facility, it was accredited as an ART service point. The accreditation criteria included, but were not limited to, staff at the facility trained and skilled in the clinical management of HIV, lab services for HIV testing linked to the site, and on site pharmacy services to house the prescribed ART drugs. At the end of 2005, only 196 sites were accredited to render ART services (SANAC, 2006:66). This was a major stumbling block, given the need for the services with the growing epidemic.

A valuable lesson learned from the National Strategic Plan (2000-2005), is that it lacks a clear monitoring and evaluation framework with targets, making it difficult to evaluate its achievements and impact. In its review of the National Strategic Plan (2000-2005), the SANAC highlighted this gap and made recommendations for inclusion in future national strategic plans. These recommendations were accepted and a clear monitoring and evaluation framework with targets was incorporated into the follow up national strategic plans (SANAC, 2006:66).

With the expiry of the first five-year National Strategic Plan for HIV/AIDS and STD (2000-2005), the National Strategic Plan for HIV/AIDS and STD for South Africa (2007–2011) was drafted by SANAC. The National Strategic Plan (2007–2011) was said to be located within the constitutional framework of South Africa, striving towards the ideals of human dignity, non-racialism, non-sexism and the rule of law (National Department of Health, 2007:12). This new strategic plan was announced as South Africa's most dynamic and comprehensive document on AIDS issues. The objectives were, firstly, to reduce new HIV infections by 50% by 2011; and secondly, to reduce the impact of the epidemic by extending access to appropriate treatment, care and support to 80% of people diagnosed with HIV by 2011 (SANAC, 2006:36). These objectives were aligned to the MDG targets. To achieve these objectives, four priority areas were identified, including (SANAC, 2011:36):

- prevention focus to ensure that the great majority of South Africans who are HIV-negative remain negative, and lowering the rates of mother-to-child transmission of HIV to below 5% by allocating 40% of the projected budget to HIV treatments;
- treatment, care and support to reduce new HIV infections and to minimise the impact of the epidemic on society, improving access to ART, and addressing the special needs of pregnant women and children;
- research, monitoring and assessment of the outcomes of the National Strategy on HIV/AIDS and STI's, by developing a functional monitoring and evaluation system; and
- human rights and access to justice to counter stigmatisation and discrimination.

These priority areas were selected based on the estimation by the WHO that 10% of the world population infected with HIV lived in sub-Saharan Africa, while 77% of these were women between the ages of 15-49 years. The contributing factors were poverty and the low socio-economic status of women in the region. Using the numerical proxy of HIV prevalence consistently less than 1% in pregnant women for epidemic status determination, as used by the World Bank and the WHO, for the period 1991–2005, South Africa had percentages ranging from 1.4% to 30.2% amongst antenatal (ANC) clinic attendees that scheduled clinical booking appointments during pregnancy (Department of Health, 2006:17-22). South Africa was therefore classified as having

an epidemic status for the HIV and AIDS diseases. At the time, the reversal of the HIV and AIDS epidemic needed many more interventions, which meant that the National Strategic Plan 2007–2011 also included the long term vision of the Joint United Programme on HIV and AIDS, which was focused on realising the three zero's, namely of firstly being able to reach zero new HIV Infections by 2015, secondly zero new vertical HIV transmissions from mother to child and thirdly, zero preventable deaths due to HIV and TB (SANAC, 2012:34-58).

With the implementation of the National Strategic Plan 2007-2011, the South African government expanded the menu of options across the continuum of care from prevention, treatment, care and support, by starting to address the social drivers of ill health. Government also succeeded in locating the strategy into the broader development agenda (National Department of Health, 2007:8). Civil society had more choices with accessing their treatment and the services were decentralised. ART provision at facility level was significantly improved and the accreditation process for sites to render ART was abandoned. This resulted in 2552 health care facilities offering ART treatment at the end of 2011, as the process was now stream lined, making ART more accessible in the country (National Department of Health, 2007:8).

During 2007-2011, the National PMTCT (2008) Policy Guideline was released formally, introducing the PMTCT Programme of South Africa and the National Clinical Guidelines for PMTCT (2010). The objectives of these two guidelines were prevention of new HIV infections as per the National Strategic Plan 2007-2011. In particular, the guidelines focused on preventing primary infection in young women of child bearing age, preventing unintended pregnancies amongst women living with HIV, preventing transmission of the virus from women infected to their unborn children and providing support to women living with HIV and their families (SANAC, 2012:8).

The National Strategic Plan 2007-2011 had a clear Monitoring and Evaluation Framework with targets included, but it did not contain the baseline values, which was a gap in the plan and it made the tracking of progress against the set targets for the five year period difficult (National Department of Health, 2007:88). The National Strategic Plan 2012-2016 is South Africa's third master plan that outlines how the country will respond to the prevention and treatment of HIV and AIDS, TB and STIs

over the period 2012-2016 (South African National AIDS Council, 2012:4-18). This plan seeks to improve on the achievements of the last National Strategic Plan (2007–2011), which sought to decrease the number of new HIV infections. The National Strategic Plan 2012–2016 has five broad goals for addressing the HIV/AIDS epidemic, including:

- to reduce new HIV infections by at least half (50%) using a combination of available and new prevention methods;
- to ensure that 80% of all people who need antiretroviral treatment (ART) actually do get it, and to ensure that 70% of these people do recover and remain alive and on treatment five years after initiation of ART;
- to reduce the number of new TB infections and deaths caused by TB by half (50%);
- to ensure an enabling and accessible legal framework that protects and promotes human rights, in order to support the implementation of the NSP; and
- to reduce self-reported stigma related to HIV and TB by 50% (SANAC, 2012:13)

At the time of drafting the National Strategic Plan 2012-2016, South Africa had a generalised prevalence rate of 30% (SANAC, 2012:13). In 2014 the mid-year South Africa Population report indicated that the country had an estimated total population of 54 million, with life expectancy for males at 59.1 years of age, and 63.1 years for females (Statistics South Africa, 2014:7). The HIV prevalence rate for the total population was estimated to be 10.2%, with 5.51 million PLWHA recorded. For the age group 15–49 years of age, (people in their reproductive years), 16.8% were reported to be infected with HIV, which is a higher percentage compared to the general population. To measure the true impact of the National Strategic Plan (2012-2016) the monitoring and evaluation framework included in the plan is critical. Monitoring and evaluation lessons learned from the previous national strategic plans were incorporated into the National Strategic Plan (2012-2016), thus a clear indicator set with baseline values and targets was included. Lacking from the previous national strategic plans was the business sector contribution in all aspects of the response to HIV and AIDS. Although this was mentioned in the plans, no formal structures were put in place to facilitate this. For the National Strategic Plan 2012-2016, as part of the comprehensive, multi-sectorial response to the epidemic, this became a priority.

Each province needed to internalise all aforementioned national strategic plans, draft policy frameworks and plan interventions to give effect to the objectives as they were set out in the national strategic plan documents. The Western Cape Province drafted the Western Cape Multi-Sectoral Strategic Plan for HIV, AIDS and STI'S (2007-2011) and the Provincial Strategic Plan on HIV/AIDS, STI's and TB 2012-2016. Both strategic plans will be discussed in the following section.

3.5 Provincial policy framework for the Prevention of Mother-to-Child Transmission

To realise the goals and objectives of the respective national strategic plans discussed in the previous section, each of the nine provinces needed to draft a provincial policy for the implementation of these plans. The Western Cape Multi-Sectoral Strategic Plan for HIV, AIDS and STIs 2007-2011 was drafted by the Provincial AIDS Council (PAC). The population target of the plan was young women, given the evidence of the Western Cape Antenatal Survey Report within the Province, which reported the highest prevalence of HIV to be amongst women aged 25-29 years, with one in every 5 women attending an antenatal clinic in the Western Cape testing HIV positive (Provincial Inter-departmental AIDS Committee, 2007:1).

For the Multi-Sectoral Strategic Plan for HIV, AIDS and STI'S 2007-2011, the evidence from a study of adolescents living in peri-urban areas of the Western Cape Province showed that 32% of the adolescents reported that they were sexually active, with the average age of sexual debut at 14.6 years of age. A quarter of the group reported to having sex with partners five years older, and not using condoms during the previous sexual encounter (Provincial Inter-departmental AIDS Committee, 2007:15).

This evidence was important as it influenced the prevention interventions that the province needed to put in place, in order to give effect to the targets of the National Strategic Plan. For the Province, 32 multi-sectoral teams were established, which were intended to bring relevant role players to initiate a local response to the epidemic (Provincial Inter-departmental AIDS Committee, 2007:16). These teams focused on prevention activities in the communities, activating communities to test for HIV and know their status, distributing condoms and organising outreach activities and

campaigns in the local communities (Provincial Inter-departmental AIDS Committee, 2007:16).

The Multi-Sectoral Strategic Plan for HIV, AIDS and STIs 2007-2011 intended to articulate (Provincial Inter-departmental AIDS Committee, 2007:16):

- a comprehensive strategy for achieving universal access to HIV and AIDS prevention, treatment and care for the Western Cape; and
- an implementation framework for a unified governmental response to HIV and AIDS in the Western Cape.

This Plan was drafted with the intent of other government departments committing to unified approach to combat the transmission of the HIV Virus. While the other plans such as the provincial Strategic Plan on HIV/AIDS, and STI'S were specific to the department of Health. The Provincial Strategic Plan on HIV/AIDS, STIs and TB 2012-2016 has the following broad goals (Department of Health, 2012:2):

- to reduce new HIV Infections by at least 50%, using combination prevention approaches;
- to initiate at least 80% of eligible patients on ART, with 70% of those alive and on treatment five years after initiation; and
- to ensure and enable an accessible legal framework that protects and promotes human rights, in order to support implementation of the National Strategic Plan (2012-2016).

The Provincial Strategic Plan 2012-2016 identifies young women between the ages 15-24 years of age as a key population. This is due to the research findings as published in the Know Your Epidemic Report (KYE) (Department of Health, 2012), which suggests that this group is four times more likely to contract HIV than males of the same age group. Other key populations were people living in informal settlements in urban areas, which have the highest prevalence in the residential category, young people not attending school and uncircumcised men (Department of Health, 2012:25). To date the Province has made funding available for medical male circumcision (MMC) roll out; while the Province also received international funding for the Young Women and Girls Project after submitting a proposal to advance prevention and treatment initiatives for this key population. As part of the prevention intervention scale up, the

Province has constantly reviewed its PMTCT programmes and amended its policies to align with national initiatives. The Province has made these policy changes, always considering the current legal framework for human rights in the context of HIV and TB. This was to ensure that interventions planned by the Province were not a violation of the human rights of any of its citizens (source). The achievements of the Provincial Strategic Plan 2012-2016 will formally be written up at the end of the plan's term before the follow up strategic plan is drafted.

After the release of the national PMTCT (2010) Guidelines, the Western Cape Department of Health amended its PMTCT 2009 Guidelines and communicated the amendments in Circular H20/2011, PMTCT Protocol Implementation on the revised PMTCT Guidelines, on the 23 February 2011. The Province drafted the Action Framework: *No child born with HIV by 2015 - Improving the health and wellbeing of mothers, partners and babies in the Western Cape*, to give effect to the policy decision to implement Options B+. The Province viewed the benefits of implementing Option B+ as significant, moving it closer to achieving the objectives of the National HIV/ AIDS and STI Strategic Plan for South Africa 2012-2016 and the Provincial Strategic Plan (2012-2016). The National Department of Health again revised the national PMTCT Clinical Guidelines, and requested implementation in April 2013. The Western Cape Department of Health, following its internal policy route, decided to implement Option B+ at this stage, and in July 2013 released the protocol for implementation in the Province. This dissertation is an evaluation of the implementation of the PMTCT Guideline (2013) as part of the PMTCT programme by the Western Cape Department of Health.

The Western Cape Department of Health has been a forerunner in the PMTCT Programme, swiftly implementing PMTCT policy improvements and implementing policy innovation based on evidence. Against the strategic backdrop of integration and sustainability, the department's response to HIV and AIDS has been an active coordinated and informed approach.

3.6 Conclusion

South Africa remains committed to achieving zero new HIV infections. The Constitution of the Republic of South Africa (1996) in Chapter two speaks of the human

rights of the citizens of South Africa which the various National Strategic Plans since the year 2000 elaborate on in respect of the right to access treatment for women and children infected with the HIV Infection. The strategic plans state very ambitiously how a unified approach across all sectors will assist in reducing the HIV Infection rate of the country. This has been translated into PMTCT Programme policies with measurable outcomes over time. The international and national policy and legislative framework was presented in this chapter as a means to addressing the second research objectives posed for the study. The following chapter will analyse the findings derived from the empirical data collected in the field.

CHAPTER 4

AN EVALUATION OF THE IMPLEMENTATION OF THE PMTCT GUIDELINE 2013: EMPIRICAL FINDINGS

4.1 Introduction

The previous chapter discussed the various changes that Province had made to its PMTCT Programme, relating to the PMTCT policies that align with national initiatives. The Province made these policy changes, considering the current legal human rights framework in the context of HIV and TB, and to ensure that interventions planned by the Province were not in violation of the human rights of any of its citizens. The Province viewed the benefits of implementing Options B+ as significant, and in July 2013 released the guideline for implementation. This dissertation is an evaluation of the implementation of the PMTCT Guideline 2013 by the Western Cape Department of Health.

This chapter discusses the experiences expressed by patients and staff, according to the evaluation indicators identified in chapter one. In an effort to improve the public health care patient experience, it is important to link policy enhancements and systems improvements for the benefit of the end-users. This is imperative for future policy development and implementation. The public health care system's primary aim is to render a good quality service to the clients, utilising the services that meet the needs of the clients (Oliver, 2017). This study argues that satisfied clients lead to increased patient retention in care, as they will continue to make use of the services. This ripple effect in the system will be evident as patients build up a medical history and comply with chronic treatment plans, which means fewer defaulters and fewer complications due to discontinuation or stopping of treatment (Oliver, 2017). The study acknowledges that with less patient recalls needed for defaulter tracing and linkage to care, the end result will be cost efficiency for the health care system as less resources will be required to track and recall patients into care.

This chapter uses the study evaluation indicators described in chapter one to highlight the patient and staff experiences with the implementation of the PMTCT Guideline 2013. Further, the study's indicators are linked to the routine health indicator set used in the ART and PMTCT Programme. This chapter addresses the following research questions as presented in chapter one (1.3), namely:

- What are the challenges patients experienced with the operationalisation of the PMTCT Guideline 2013?
- What are the challenges experienced by health care professionals with the implementation of the PMTCT Guideline 2013?

The following section will describe how the chosen research methodology has been operationalised.

4.2 Operationalising the research method

As stated in chapter one, the evaluation follows a mixed methods approach, using a case study to evaluate the implementation of the PMTCT Guideline within the Western Cape. The responses of the patients and staff interviewed were analysed under respective themes. For this study, systematic sampling was used to identify 20 patient participants for interviews. Permission to access patient folders was sought on application of the research from the substructure management. The primary objective being to maintain patient confidentiality. Accessing a patient's folder was necessary to ensure the appropriate selection of patient participants who met the inclusion criteria stated below:

- have tested HIV+ with the current pregnancy;
- were ART naïve (not exposed to ART before);
- have started on ART with the current pregnancy and still retained in care post-natally;
- were commenced on first line ART regimen (FDC); and
- have had a live birth and had at least three patient visits related to testing HIV positive.

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The specific sites where the research was conducted included the Guguletu MOU on the premises of Guguletu Community Health Centre (CHC) which is one of the older MOU's in the Klipfontein Mitchells Plain Sub-Structure (KMP SS). The Centre offers services to patients from the surrounding Guguletu, Nyanga, Vuyani, Barcelona, Cross Roads and Inzame Zabantu communities. Retrieving the patient folders from the registry was a significant challenge, as the physical infrastructure of the facility is inadequate for the current services it offers. Staff frequently move folders to various storage spaces to make space for the active folders and do not have a systematic method in place for moving or archiving the folders. No patient folders were found; therefore, no patients could be included from this specific MOU. Five folders were found at the Guguletu ART department and included in the study.

The Hanover Park MOU on the premises of Hanover Park (CHC), which predominantly serves the communities of Hanover Park, Newfields, Lansdowne, Philippi and Manenberg, presented a similar problem with systematising patient files. Filing space constraints have caused the facility's management to archive patient records in boxes and store them on top of old cabinets, with the registry situated in a small confined space. No 2013 or 2014 folders could be retrieved from the MOU. This MOU however, has a prefabricated structure serving as the ART unit adjacent to it, and from these registry patients who chose to continue their ART treatment at the facility (post-delivery) were found. However, only patient folders for 2015 and 2016 could be retrieved, and a total of fourteen patient folders were retrieved.

The Mitchells Plain MOU on the premises of the Mitchells Plain CHC, which predominantly services the Mitchells Plain, Mandlay and Khayelitsha areas, presented difficulty in retrieving patient folders. The registry only housed current and part of 2016 folders due to space constraints. Physically finding the folders in any of these registries was the confounding challenge experienced during the empirical data collection.

A total of 20 pregnant women patients initiated on ART during pregnancy in the 36 months post-implementation of the PMTCT Guideline 2013 in the substructure were selected. The following table presents the number of patients per site sampled for the study.

Table 4.1: Qualifying patients interviewed per site

Facility Name	2013	2014	2015	2016	Total	Complete folders found	Patients consenting to participate
Wc Guguletu CHC	12	62	474	305	853	5	0
Wc Hanover Park CHC	270	248	230	108	856	14	12
Wc Mitchells Plain CHC	38	670	561	162	1431	1	0
Grand Total	320	980	1265	575	3140	20	12

Patients' addresses were located with the assistance of the local community health care workers, and patients were contacted telephonically to set up an appointment. Semi-structured interviews were conducted with patients, with their consent, to determine their views on lifelong ART, and to determine how they were referred. As can be seen from the above table, only 12 out of the sampled 20 patients consented to participate in the study providing a 60% response rate. The following table presents the age demographic of the participants.

Table 4.2: Descriptive statistics related to age of participants

Mean (Sum of the data)	Median (middle value)	Mode (most repeated value)	Range (smallest; largest values)
32.4	34	27,34,36,39	23 ,39

For the staff interviews, 12 officials were purposively selected to be interviewed. These can be divided into management and operational staff. The management staff included the substructure PMTCT coordinator, and the substructure HAST medical officer. The operational staff were the facility and operational managers and the registered professional nurses at the MOUs.

A suitable interview date and time was mutually agreed upon, and the staff (interviewees) signed a consent form before the start of the interview. Interviews were also recorded with the participant's permission. For the purpose of analysis all officials interviewed were grouped together and a single designator assigned as follows: PMTCT Coordinators, HAST Medical Officer, HAST Manager, Operational Managers, and Registered Professional Nurses, the designators – DH1 to DH 9 were assigned. The information was gathered through direct contact with the participants and thematically analysed under specific themes linked to the research objectives of the study (De Vos *et al.*, 2011:343). Each participant (patients and staff) was requested to sign a consent form giving permission for the interview, in particular the recording of the interview.

As set out in chapter two, the study planned to have interviews with 12 staff members, however, since the implementation of the PMTCT Guideline 2013, many key stakeholders who had been involved in drafting and implementing the Guideline have changed positions. At a management level the previous HAST Director was not available for the interview. The Deputy Director HIV Prevention and the PMTCT Provincial Coordinator's post, since implementation of the PMTCT Guideline 2013 remains vacant. At a substructure level the substructure HAST Manager, HAST Medical Officer, and the Quality Assurance Manager who were the previous substructure PMTCT Coordinators, were interviewed. At a facility level the Operational Managers of all three MOU;s were interviewed and registered professional nurses (midwives) at these health facilities were interviewed. A total of nine staff interviews were conducted.

Table 4.3: Breakdown of Operational Staff interviewed by category

Guguletu MOU	Mitchells Plain MOU	Hanover Park MOU
Operational Manager x1	Operational Manager x1	Operational Manager x1
Midwife x 1	Midwife x1	Midwife x 1

Before the thematic analysis is provided it is important to note the context within which the Guidelines were implemented and subsequently affected the evaluation thereof. This is described below.

4.3 Operational context of programme evaluation: PMTCT

With the National Department of Health providing the revised PMTCT Clinical Guidelines in March 2013 for implementation in April 2013 in the country, the Western Cape needed to make the necessary programmatic changes for implementation on 1 July 2013. The Guidelines had significant policy change implications as can be seen in the following table.

Table 4.4: PMTCT Guidelines prior and post July 2013

	Prior 1 July 2013	1 July Revised Policy
CD4>350 or WHO Stage 1 / 2:	Mother: Antenatal: AZT prophylaxis Intrapartum: AZT, NVP, Truvada Postnatal: No treatment Infant: NVP for duration of BF	Mother: Antenatal: ART (FDC) prophylaxis Intrapartum: No drugs Postnatal: ART (FDC) for duration of BF Infant: NVP for 6 weeks
CD4≤350 or WHO Stage 3 / 4:	Mother: ART for life Infant: NVP for 6 weeks	Mother: ART for life Infant: NVP for 6 weeks

Operationally for the Western Cape, after the pregnancy is confirmed, every mother is offered an HIV test to determine her HIV status (Pere, 2017). In the routine health indicator set this indicator is listed as *Antenatal client HIV 1st test*. Should the woman test positive for HIV, a second confirmatory test is performed to confirm the HIV status. This is referred to as the *Antenatal HIV 1st test positive* (Pere, 2017). Due to the risk posed to the unborn baby, should the mother test HIV positive, she will be initiated on ARTs during her first appointment for the management of her pregnancy.

The ART initiation is done by a professional nurse or a mid-wife authorised as a nurse prescriber for ART. Programmatically all pregnant women testing HIV positive should be initiated on ARTs to reduce the risk of transmitting the HIV virus to the unborn child. In the PMTCT Programme, the babies of all mothers enrolled on ARTs are referred to as *HIV-exposed babies*, with a risk of having contracted HIV during pregnancy or during the birthing process. These HIV-exposed babies are given Nevirapine as a prophylactic measure to reduce transmission (Pere, 2017).

The routine health indicator set specifies this indicator as *Babies given Niverapine within 72 hours after birth*. The infant's 1st PCR (Polymerase Chain Reaction) laboratory blood test is performed around 6 weeks post-delivery, whereby blood is drawn from the baby to test for the HIV infection. This indicator measures the number of babies which test HIV positive on the PCR test at six weeks. When a baby tests HIV positive, it means that one or more of the PMTCT interventions has failed. This study aims to evaluate whether the mother and baby received all these programme interventions and what the patient's experience during treatment was.

Integrating ART and PHC services is a long term strategy that will be strengthened as the number of NIMART (Nurse Initiated Management of ART) trained nurses increase. Short-term integration of services poses challenges such as the shortage of trained NIMART staff at the MOU and PHC facilities (Goosen, 2016). While working towards integration, the alternative is for clients on ART prophylaxis to be seen at ART sites as a separate group, which speaks to fragmented service delivery and this still requires the linking of these patients on Tier.net to avoid the patients reflecting as a treatment defaulter on the system.

As previously discussed, the measurement of reference as a source of information for this study is the routine health indicators set as listed above for PMTCT and ART Programmes. In addition to the *Antenatal client HIV 1st test*, *Antenatal HIV 1st test positive*, *HIV exposed babies given Nevirapine within 72 hours of birth*, *infant's 1st PCR performed around 6 weeks post-delivery* and *infant's 1st PCR positive*, the routine indicators for the PMTCT and ART programmes are inclusive of the number of women retained and linked to care post-delivery, the number of women who have defaulted treatment, the number of total live births and the number of babies born HIV negative, confirmed with a six-week HIV test (Pere, 2017). The monthly and quarterly

reports from the electronic monitoring and evaluation systems (Tier.net) for the HIV Treatment Programme were used, to establish the number of antenatal HIV infected pregnant women enrolled into ART since the Guideline's implementation in the substructure (Mangaloti, 2017).

Based on the indicators for evaluation identified in chapter one and two of the study, a thematic analysis follows. The themes cover evaluation regarding programme resource challenges, staff challenges, financial/funding challenges, programme monitoring systems challenges, integration of PMTCT indicators in the monitoring and evaluation system, post-natal package of care, challenges with referral channels, and patient satisfaction.

4.4 Thematic analysis

A total of thirteen patients availed themselves to be interviewed, and one patient declined when she understood that participation was not mandatory. It was reinforced that she could opt out from the interview at any time, therefore only twelve patients were interviewed (see table 4.1). Both the patient and staff responses have been analysed under the themes identified for this study as mentioned above. Each of these themes will now be presented in detail.

4.4.1 Programme resource challenges

As was conceptualised in chapter two of the study, resource challenges directly impact policy implementation. With the implementation of ART as Prevention and Treatment and Care, it meant that more patients qualified to be initiated on ART. According to the PMTCT Guideline (Author, 2013), this placed further strain on the limited programme resources. Options B+ meant not only providing the same triple ARV drugs to all HIV-infected pregnant women in the antenatal period, but also continuing this therapy for all of these women for life (World Health Organisation, 2012:1). The advantages of Option B+ are the protection against MTCT in future pregnancies, a continuing prevention benefit against sexual transmission to zero-discordant partners, and avoiding the stopping and starting of ARV drugs which leads to ART drug resistance (World Health Organisation, 2010:2).

From the staff interviews it was ascertained that the policy directive reached the facilities via the official communication channels, but this was not communicated to

the affected staff in an interactive manner. Staff appeared to know about the existence of the policy, however what this translated to in practice was discovered with the implementation of the PMTCT Guideline 2013. “We run with a great idea, implement and then we plan” (DH3, 2017). The quote implies that a policy is drafted without consideration given to the effects of implementation, and that the full understanding of the policy change is only understood once operational planning starts.

A total of 60% (6/10) of the staff respondents indicated that the resources to fully implement nurse driven services, namely NIMART in the MOU’s, were not adequately available. The responsibility of implementation was placed on the substructure and facilities to ensure the training of the midwives in support of the implementation of the PMTCT Guideline (2013). The responsibility for implementing the PMTCT Guideline (2013) was decentralised to a local substructure level which presented multiple challenges, specifically related to staff and funding for the programme management of the substructures (as will be discussed in the following sections).

Support from the HAST Directorate was in the form of making the policy available, with full implementation devolved to the grassroots level. This put strain on the programme management staff at the substructure who found themselves in a position of leading implementation. They had to ensure that staff received the PMTCT Guideline (2013) and be trained according to it. They had to answer questions of clarity, and staff directed their uncertainties and unhappiness with having to implement the PMTCT Guideline (2013) to the substructure programme staff who were carrying out a policy directive. This relates to why one of the managers indicated following implementation planning is done as a “chicken and egg” situation. The ideal would have been to involve the grassroots staff in the process much earlier, this ensures buy- in and ownership.

4.4.2 Staff challenges with task shifting

This theme links to the programme indicator 2, programmatic issues pertaining to staff performing ART enrolments in the antenatal birthing units, as part of the antenatal care package. Shortages of human resources for health service delivery have severely hampered the rollout of ART in sub-Saharan Africa. Task shifting, or delegating tasks performed by doctors to staff with lower-level qualifications is considered a means of

expanding rollout and improving access to care in resource-poor settings (Callaghan, Ford & Schneider, 2010:8).

A systematic literature review by the Cochrane library, the Social Science Citation Index, and the South African National Health Research on the delegation of tasks (especially initiating and monitoring ART) from doctors to nurses and other non-physician clinicians, showed that task shifting does increase access to ART (Callaghan, Ford & Schneider, 2010:8). The general conclusion that good health outcomes can be achieved by task shifting to nurses carries weight. Nurses have demonstrated they can competently initiate and manage patients on ART, after they have successfully been trained, received mentoring and support (Pere, 2017). With nurses being the backbone of the District Health Care system – a workforce more readily available – it makes sense to capacitate nurses to initiate and manage patients on ART. However, for such a policy shift the buy-in from nurses are necessary. They must have an opportunity to express their concerns, fears and matters relating to increased workload. Referral channels must be discussed in detail with the nurse expected to implement the policy. Nurses also need the reassurance that they are still maintaining their scope of practice in accordance with the statutory body to which they belong (Oliver, 2017).

The potential for task shifting in HIV care was elaborated on by the World Health Organisation's Integrated Management of Adult and Adolescent Illness Guidelines (2004), which recommended that nurses and clinical aids be trained to provide primary care for HIV. In 2008, this potential was expanded and formalised by joint WHO/UNAIDS/PEPFAR guidelines for the implementation of task shifting as an immediate way to address staff shortages while delivering good quality care (Callaghan *et al.*, 2010:8).

From the responses the integrated package of care is well offered by Professional Nurses in taking on the new role of a nurse-driven service, rendering a fully integrated antenatal and ART package of care. 100% Primary Health Care Patients Interviews respondents (PHCPI) display with their responses they fully understood the rationale for task shifting to nurses. Respondents indicate that professional nurses initiating HIV+ women on treatment was necessary to ensure the services reach more without the quality or standard of antenatal and ART care being compromised. Participants

describe the benefit of the PMTCT Guideline (2013) implementation as a benefit to themselves, stating that participation will, “ease [their] mind to know [they] can have an HIV negative baby” (PHCPI 4, 2017). Other respondents indicate that the integrated package of care is well offered. A 100% of PHCPI respondents say that they enrolled on to the PMTCT programme after the benefits of the PMTCT Guideline 2013 were explained to them as they wanted, to bring forth an HIV negative baby, one participant said it is so “[her] baby can live a normal life” (PHCPI 5, 2017). Participants describe the benefit of the PMTCT Guideline 2013 implementation as a benefit to themselves and their babies.

Staffing challenges with task shifting relates to the one Professional Nurse within an MOU now having to offer both antenatal and ART care, and nurses find this to be overwhelming and in particular raise concerns with not having been consulted on the matter until the PMTCT Guideline 2013 needed to be implemented. Professional nurses are expected to fully understand the ART guidelines as it relates to PMTCT, without direct doctor support on site in the MOU. This requires a mind shift as this is a huge shift in clinical management (Pere, 2017).

4.4.3 Financial/funding challenges

According to Rollins, Chanza, Chimbwandira, Eliya, Nyasulu, Thom, Zawaira, Odoh, Okello, Oyelade, Banda, Masanhu, Mandlhate, Mushayi, Isseu, Newman, Sanni, Baller, Seto, Shaffer (2014:), countries with high HIV prevalence face the challenge of achieving high coverage of antiretroviral drug regimens interventions including for the PMTCT of HIV. In 2011, the World Health Organisation launched a joint implementation research initiative to increase access to effective PMTCT interventions in Malawi, Nigeria, and Zimbabwe. These countries on the African continent have similar challenges to South Africa with the burden of HIV. The key operational issues and implementation challenges for effective delivery of PMTCT interventions in these countries were the lack of national partners, including funders, mid- to long-term national funding for the programme, inadequate and inequitable distribution of human resources for health, especially skilled birth attendants (Pere, 2017). This presents a similar case to South Africa.

The responsibility for implementing the PMTCT Guideline 2013 was decentralised to a local level with no additional budget allocated (Pere, 2017). This is expressed in the

staff interviews, with 60% of staff respondents indicating insufficient resources to implement the Guideline 2013. An additional budget has not been allocated for purchasing of equipment, and the MOU may need to set each cubicle up as a fully functioning clinical consultation room. The required stationery needs to be ordered from existing budgets, hard copies of the Guideline has to be locally printed, and costs for training also have to be considered. This adds strain on the substructure management as these requests are filtered upwards to the substructures from the MOUs. Additional hardware on which to have Tier.net installed is also not catered for with implementation of the PMTCT Guideline 2013 (Mangaloti, 2016).

The lack of human resource capacity and other supply chain support to implement the PMTCT Guidelines 2013 is thus not unique to the Western Cape Province. The substructures are not given authority to undertake local planning and setting priorities for the Guideline's implementation. The Alma-Ata declaration "health for all" concept of 1978 is an approach which advocates bringing health services closer to communities. It is an approach which allows for grassroots participation in decisions making. Devolved decision-making to local levels is aimed at improving planning and accountability and ensuring that priority setting and decision-making processes are closely located to the beneficiaries in the health sector, allowing for the needs of the beneficiaries to be considered (Shayo, Mboera & Blystad, 2013:273).

With the local implementation of the PMTCT Guideline 2013, the concept of decentralisation is not fully adhered to. This is evident with the budget and other planning still being centralised at the provincial sphere. The study argues that donor funding for the PMTCT programme dictates central budget management and therefore it remains to be centrally managed with the HAST office accountable for expenditure (Shayo, Mboera & Blystad, 2013:273).

However, in maintaining central control over budget but decentralising the functions of the PMTCT Guideline 2013 is contradictory. With the substructures needing to drive the implementation process, training, procurement of stationery and support for implementation to the grassroots / facility level, the substructure requires autonomy in respect of budget allocations for the implementation process as well. Implementation plans cannot be drafted without a budget commitment as this stifles planning. It further leads to local substructure staff being frustrated as they are responsible for answering

services questions and resolving service and operational challenges and gaps (Pere, 2017). According to Shavo (2013), it is preferable to decentralise the budget to grassroots level where the implementation occurs. This will assist with priority setting and commitment at this level.

4.4.4 Programme monitoring systems challenges

With the intent of decentralised health management the responsibility of long-term and macro-planning, as well as of overall monitoring, grassroots management is given the authority to supervise, monitor and evaluate their PMTCT programmes and interventions. (Shayo *et al.*, 2013:273). In the context of vertical programmes, the guiding principles for sustainable monitoring and evaluation systems include ownership, support for these programmes, policies and systems. To support the HAST (ART&PMTCT) monitoring and evaluation systems, specific teams are established but these are not sustainable with the expansion of the HIV programme (source). At facility level HAST, data capturers are appointed using vertical funding. However, these data capturers are only placed in facilities with ART departments, not in the MOUs. With the PMTCT Guideline 2013, data capturing would ideally have taken place in the MOU where the patient is initiated on ART (Mangolti, 2016).

As with the case of the PMTCT of HIV programme in Tanzania, programme monitoring and evaluation has the potential to be a cornerstone of health systems strengthening and of evidence-informed implementation and scale-up of HIV-related services in resource-limited settings (Nash, Elul, Rabkin, Tun, Saito, Becker & Nuwagaba, 2009)

Lessons from the implementation of the PMTCT Programme in Tanzania include (Shayo *et al.*, 2013):

- web-based applications with decentralised data entry and real-time access to summary reporting requires internet access;
- timely feedback of information to site and district staff is critical to close the gap in patient management in real time;
- site-level integration of traditionally siloed programme area indicators is necessary;
- longitudinal tracking of programme and site characteristics are necessary; and
- the use of routinely collected aggregate data for epidemiologic analysis and operations research is essential.

Respondents indicate that with the implementation of the PMTCT Guideline 2013, they are over-whelmed with their clinical workloads in having to offer an integrated package of care monitoring, and evaluation is not a priority.

As with the Tanzanian programme, incomplete reporting and inaccurate data pose a major challenge to effective monitoring and evaluation. Limited resources for the collection and use of data, inadequate training of data collectors, duplicate and irrelevant indicators, a lack of proper reporting tools (e.g. registers and forms), and the poor documentation of services provided within health facilities monitoring and evaluation systems all contribute to the limited flexibility to rapidly accommodate the need for new or modified indicators. This is owing to the different HIV care and treatment programmatic activities that are introduced, diversified, and expanded (Nash *et al.*, 2009). There are tensions regarding the complexity of HIV monitoring and evaluation systems.

ART data was historically collected in hard copy registers before moving over to the electronic Tier.net register. Similarly, PMTCT data is routinely collected in registers at the facilities and collated each month on paper-based forms that are submitted to the sub-district office for entry into electronic collation tables. Antenatal data collected in the MOU is also collected manually. With the PMTCT Guideline 2013 implementation the MOU has had to transition to electronic monitoring and evaluation systems which added a complexity to business-as-usual for the administrative staff of the MOU (Oliver, 2017).

In its National Strategic Plan (2000-2005), the SANAC (2006:128) made recommendations for a clear monitoring and evaluation framework with targets to monitor the impact of investments into health programmes such as PMTCT to be put in place (Pere, 2017). Therefore, the HAST directorate has a well-defined set of PMTCT and ART indicators drafted, which is routinely used to assess the programmes outcomes and impact (Pere, 2017). However, to collect the data for these indicators is challenging (Pere, 2017). As previously stated, the ART department and MOU historically has two separate databases for collecting this data, with the MOU mostly making use of a manual paper-based system and the ART department using the electronic databases, namely Tier.net.

Having a paper based monitoring and evaluation system and then needing to transition to an electronic, also means that MOUs would need the necessary hardware and software programs installed. The procurement and maintenance of these have budget implications. Staff need training in capturing on the electronic system, they require support with data checks for completeness and generation of reports. The interpretation of the reports are needed to add value to the impact the policy implementation had at the MOU. The consequences of implementing the policy is what lacks in the provincial planning. The substructure programme staff engage the MOUs on monitoring and evaluation gaps and support needed.

Decentralised monitoring and evaluation capacity building is needed, though NPO support is available, there is a need for the provincial level to factor in the need for support when they drafted the PMTCT Guideline 2013.

4.4.5 Integration of PMTCT indicators in monitoring and evaluation system using routine programme indicators to measure policy impacts

The MOUs function on a 24-hour basis, however the administrative staff only work from Monday to Friday (40 hours per week). The DH respondents raise this concern as the registries are generally closed after hours with no access to the computers to update or access the information. A total of 80 % (8/10) of the DH respondents state that they are aware of the routine programme indicators, but to capture the data from the source documents on Tier.net is a challenge from both the substructure and facility perspective. Most MOUs on the Metro have registry space constraints; and all three MOU's in the Klipfontein/Mitchells Plain substructure have severe filing constraints, with each site making operational plans to solve the problem.

Each of the three MOUs have a different system in place to capture the data on the electronic system and admit that multiple gaps exist with capturing the data (Mangaloti, 2017). Should each MOU have either electronic system installed in the MOU some of these gaps could be bridged with the implementation of the PMTCT Guideline 2013, thereby giving a better measurement outcome. This leads to multiple data gaps in the ART and PMTCT data set per facility, where incomplete datasets skew the picture of the true burden of disease per facility and community (Mangaloti, 2017). Not all women initiated on ART in the MOU are captured on Tier.net as the MOU does not have the electronic M&E system. When the women give birth, their babies would be captured

at the local level facility as previously discussed in the chapter (Mangaloti, 2017). In instances not every ART visit of the women are captured on the Tier.net system and the women, though in care, would reflect as a defaulter at the MOU (Mangaloti, 2017).

For the patients to be included in the sample, the researcher had the following markers included: the woman must be pregnant, she must have agreed to start on ART, started on ART (naïve), no previous exposure to ART, retained in care with at least 3 consultations post-delivery, be on first-line ART regimen, and must have given birth to a live baby. In using an electronic monitoring and evaluation system it was possible to do this sample selection with ease. These are of the benefits on an electronic system versus that of a paper-based system. However, for this study it proved difficult to generate a complete picture due to capturing challenges at the MOUs, furthermore the storage and filing of the folders proved to be a further challenge making access to the patient folders difficult.

The true workload impact is also difficult to determine as not all the women initiated on ART at the MOU are captured, thus the immediate impact of implementing the PMTCT Guideline 2013 on the midwife is difficult to accurately ascertain (Mangaloti, 2017). With the implementation of the PMTCT Guideline 2013 structural/physical registry space constraints are not considered. The workflow from the registry through to the system, to the patient being captured on the electronic system may not be well thought through. The focus is on the clinical changes and benefits to the patient, the administrative and environmental barriers are not emphasised. However, these are critical to the successful implementation and a lesson for future policy implementation.

4.4.6 Post-natal package of care and referral pathways challenges referral pathways and linkage to care

As previously discussed the fragmented monitoring and evaluation system exists, with the ART and MOU having two separate databases. This makes referrals to linkage of care difficult. A total of 60 % (6/10) of the DH respondents express that the paper referral system works well. They detail how registers are used to generate birthing lists, allowing for the follow-ups of the new mothers and their babies in the post-natal period by the community health care worker attached to each facility. Lay-counsellors and the community health care workers are described to be the central persons for

linkage to care, as they work closely with the PMTCT Coordinator to follow-up with the mother and baby (Oliver, 2017)

In doing so, the linkage to care of the mother and child is assured. However, the community health care workers can only follow up on patients staying in the immediate communities surrounding the MOU. The community health care workers are lay persons from the local community who have received appropriate training in health care, and are employed by a local non-profit organisation (NGO). They travel by foot to the patients' homes and only work four hours per day. If a patient resides outside of the geographical boundaries of the MOU, the community health care workers or counsellor will contact the community based service coordinator to do the linkage to care. It is important that each HIV exposed baby be followed-up on and receive appropriate treatment to ensure the baby has a good quality of life and chance of survival (Oliver,2017).

The PMTCT programme evaluation (Author, 2010), reveals that the post-natal linkage to care gaps need to be bridged to achieve a decrease in HIV transmissions from mother to baby in the post-natal period. Thus, the work the community health care workers perform is a vital component of the integrated package of care (Barron *et al.*,2013:70).

From a patient perspective, all PHCI respondents indicate that they have taken their children for the six weeks follow up visit and the PCR test. All respondents indicate that they are keen to know their babies' HIV status. This indicates that these respondents reaped the benefits of understanding the clinical and life benefits of the PMTCT Guideline 2013. All PCHI respondents indicate that they are comfortable with staff explanations of the benefits of the PMTCT Guideline 2013, and the respondents' experience with the services are generally good. A total of 66% of the respondents indicate that they have no complaints, two respondents indicate that they are unhappy with the waiting times while one respondent indicates that she struggles to come to terms with the diagnosis. When first informed, her experience had been unpleasant, while one respondent indicates that she needs the staff to be more friendly and helpful.

Thus it can be said the PMTCT Guideline 2013 are well received by the respondents. They understand the intent of the guideline and accept it, which is what study wants to ascertain.

4.4.7 Patient satisfaction

To prevent the transmission of the virus from mother to child, it is crucial that the appropriate treatment, care, and support be provided to the women living with HIV before, during and after pregnancy (Barron *et al.*, 2013:70). The earlier the intervention is started, the lower the risk of transmission from mother to the baby. When the PHCI respondents were asked if they booked before 20 weeks, 75% indicated that they did. They had heard informally through community structures about the benefit of having your pregnancy confirmed early and about HIV testing. The respondents indicate that they understand the benefits of early booking and treatment as prevention.

Using the client-centred approach when asked about the benefits to their family, two PHCPI respondents admit that they have not disclosed their HIV+ status to their families. They feel that due to the triple therapy medicines, their family members are not able to notice that they are HIV+ as they do not appear sick. As part of the work for ART and the patient journey, disclosure is discussed. Lay-counsellors and health care workers discuss the importance of disclosure with the pregnant HIV + women as a means of empowerment. If the women have a “buddy” that they disclose to, this person can also support the HIV + women on her treatment journey (Oliver, 2017). With not all the respondent’s feeling comfortable to disclose may indicate that there is a gap in the counselling received. Effective counselling is one cornerstone of the PMTCT Guideline 2013 implementation as it covers adherence, treatment options and disclosure. The PMTCT statement of goals is to be an integrated programme, offering a HIV Counselling and Testing (HCT), triple drug regimen, post-natal follow support for mother and baby. One of the national 2005 PMTCT programme evaluation recommendations, is to ensure routine HIV counselling as part of the PMTCT package of care (Oliver, 2017).

When the PHCPI were asked if they could list any disadvantages in respect of the PMTCT Guideline 2013 implementation, all twelve PHCPI respondents felt there were no disadvantages with implementing the PMTCT Guideline 2013. Generally, PHCPI respondents feel that it has saved their lives and that of their babies’. This theme is linked to indicator 1, which is ANC Client initiated on ART which relates to the number of women initiated on ART. It is important for retention in care purposes that the women are satisfied with the service they receive and understand their enrolment on the PMTCT Programme. From the PHCPI responses the women are satisfied as they

are able to live without discrimination. With the women being empowered in understanding their disease, the treatment and management of the disease improves compliance on treatment. During the treatment process as part of the management plan, stigma, defaulting, linkage to care are all addressed with the patient to prepare them for the future and possible challenges they may experience (Oliver,2017). This could be interpreted to mean the counselling received as part of the ART work up was adequate. However, when compared to the responses on disclosure there appears to be a disjuncture. There may other reasons for the two PHCPI responding to the disclosure questions negatively, but this was not explored with the interviews.

The measurement of reference as a source of information for this study was the routine health indicators set as listed for PMTCT and ART Programmes. In addition, the routine indicators for the PMTCT and ART programmes, the number of women retained and linked to care post-delivery, the number of women who have defaulted treatment, the number of total live births and the number of babies born HIV negative confirmed with a six-week HIV test are also included. A huge success for the policy implementation is in all the PHCI respondents indicating they take their babies for follow up care and the PCR test at six weeks. Not only is the baby tested for HIV at six weeks, but whatever the result is, it is an opportunity for treatment and linkage to care to save a life.

Thus the mother and baby reap the benefit of the PMTCT Guideline 2013 as the mothers understand the importance of having the baby tested at 6 weeks.

4.5 Conclusion

This chapter addressed two research questions, namely: what are the the challenges patients experienced with the operationalisation of the PMTCT Guideline 2013? And what are the challenges experienced by health care professionals with the implementation of the PMTCT Guideline 2013?

In general, the PMTCT Guideline 2013 is described to be a good policy intent with substantial benefits for the intended recipients, namely the mother and baby while also having benefits at a community level. The implementation process is not without its challenges, which are experienced predominantly at the operational level. Patients understand that the primary intent is to prevent the transmission of the HIV from

mother to baby. The majority of PHCPI respondents indicate that the policy benefits are to protect their babies from HIV, and prevent the mother from getting sick. In this regard the PMTCT Guideline 2013 achieves its objectives.

Implementation challenges for staff relate to the scope of practice of the Registered Professional Nurse who are the key drivers to implementing the PMTCT Guideline 2013. Task shifting to nurse driven service has many implications for the Registered Professional Nurse, who is expected to offer an integrated package of care – ART and PMTCT in the MOU. This cadre of staff is ill-prepared for this change, as it is expected of the substructure to provide training and support and put systems in place for this transition. The substructure programme management is equally ill-prepared to support the implementation of the PMTCT Guideline 2013 but have found means to drive implementation. The following chapter provides conclusions and specific recommendations to improve the implementation of the PMTCT Guideline 2013.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS FOR FUTURE POLICY IMPLEMENTATION

5.1 Introduction

Chapter five encapsulates the essence of the study. A summary of what was discussed in each chapter and the main arguments will be highlighted in this chapter. Chapter one listed the objectives of the PMTCT Guideline 2013. In the second chapter the theory of programme evaluation was discussed. Chapter three discussed the legislative framework for the provision of health care services and the treatment of infectious disease for women and children; while the fourth chapter details the evaluation of the PMTCT Guideline 2013 from a staff and patient perspective. In this chapter, a critical perspective of the impact of the PMTCT Guideline 2013 will be provided. Recommendations will be made to assist with future PMTCT Guideline implementation.

This section details how the study was operationalised and the main findings in each theme.

5.2 Operationalising implementation

Chapter one discussed the history of the HIV epidemic, from the first reports of the HIV/AIDS in the USA in 1981 to the spread of the disease to Africa. Initially HIV was a disease affecting only the homosexual male population but that soon changed with reports in 1982 of HIV also affecting both women and children (Merson, 2006:2414).

Ten years later the WHO announced that HIV/AIDS had become the fourth biggest killer worldwide and the number one killer in Africa (Merson, 2006:2414). As the decade progressed, so did the epidemic did affecting all the countries of Africa, including South Africa. (Illife, 2006:387). South Africa, had a delayed response the epidemic, with the country emerging from the reins of the *Apartheid* rule. For women and children in South Africa the period from 1998 to the early 2000s was a dim period, as the country struggled to take concrete action to combat the spread of AIDS.

The PMTCT programme was officially introduced in the country in 2002 and quickly bridged the historic gaps. There were swift policy shifts to combat the transmission of HIV from mother to child, with the goal of zero new HIV infections in children. Policy changes were made in 2006, 2008, 2010 and 2013. The provincial HAST Directorate drafted a Western Cape specific PMTCT Guideline 2013, via its policy structures and communicated the policy to the substructures for implementation. How this transpired in one substructure namely Klipfontein Mitchells Plain substructure is what the study evaluates. The performance standard for the policy evaluation was put in place by the HAST directorate in the form of the routine health indicators set for PMTCT and ART Programmes. This evaluation used these indicators to measure outcome and impact of the PMTCT Guideline 2013 implementation.

Implementation challenges were numerous at an operational level, with the grassroots drivers not being included in the policy discussions their buy with the latest changes lacked due to the exclusion. Hard copies and an electronic version and presentation of the PMTCT Guideline 2013 was made available for the HAST managers to conduct decentralised training and implementation with limited support from the HAST Directorate. The budget remained centrally managed and no budget allocations were made available for this policy shift at a decentralised level. Staff engagements at the operational level were lacking, while resources (infrastructure, staff and equipment) to make the policy shift in the MOU's were also lacking.

Excluding key role-players in the policy development process causes tension when the said policy must be implemented by these role-players. The PMTCT Guideline 2013 was definitely in public's health interest and though it sought to achieve a compelling health objective the process was flawed. This ultimately affected the overall effectiveness of the policy. This was evident with each MOU in the substructure taking a different approach to implementation the intended beneficiaries experienced an implementation lag.

5.3 Programme evaluation contextualised

The primary aim of the PMTCT Programme is to decrease the number of HIV infected babies born to HIV positive, this study's purpose is to establish if the programme reached this goal and through what means. With this study the patients and health care practitioner's experiences and practice in implementing the PMTCT Guideline

2013 were evaluated. In general, the PMTCT Guideline 2013 is described to have good policy intentions with substantial benefits for the intended recipients, namely the mothers and babies.

To conduct the evaluation an interactive evaluation practice was needed. In conducting the evaluation, the evaluator had to frame questions, determine an appropriate design, identify samples or data sources, collect data, analyse the data (organising results), interview staff and patients, interpret results and make recommendations (King & Stevahn,2013:13).

The staff who were interviewed were carefully selected through a process described in chapter two. With the interviews the staff indicated that there was a lack of consultation when the PMTCT Guideline 2013 conceptualisation and its implementation. They are aware of the policy structures and forums where clinical policy changes are debated, and recommendations are made by clinicians and provincial programme managers. Thus, the top-down approach to policy implementation is practise. Often this leads the administrative implications for implementation such as monitoring and evaluation of the policy's implementation and decentralised resource allocations not receiving sufficient attention while these are the drivers for successful implementation.

5.4 The legislative framework for the PMTCT Guideline 2013

The Constitution, 1996, firmly entrenches the rights of women and children to HIV care as both prevention and treatment. South Africa can pride itself on having a sound legislative framework for People Living with HIV and AIDS (PLWHA), which includes the National Health Act (61 of 2003) ,the Labour Relations Act (66 of 1995), and the Occupational Health and Safety Act (85 of 1993) (National Department of Health, 2006:110). The National Health Act (61 of 2003) gives guidance on drafting and implementing policy, facilitating and promoting the provision of health services for the management, prevention and control of communicable diseases inclusive of HIV, AIDS, and non-communicable diseases and drafting strategic health plans (South African Parliament, 2003:32).

The National HIV/AIDS and STD Strategic Plan (NSP) (2000–2005) for South Africa, the National Strategic Plan (2007–2011) and Provincial Strategic Plan on HIV/AIDS, STI's and TB (2012-2016) is a direct product of the commitment by the Western Cape Government Department of Health to its legislative obligations in combating HIV/AIDS. The monitoring obligation in respect of the progress on achieving the goals of the aforementioned strategic plans has underwritten the respective PMTCT Guidelines in the Western Cape Province and the development of the PMTCT programme indicators.

5.5 Evaluation from a grassroots perspective

The study was operationalised by sampling staff and patient interviews and analysing programme data. The results indicate that of all the HIV-positive pregnant women initiated on ART, less babies are born infected with the HIV infection and testing HIV positive at six weeks. If the performance on these two indicators is compared to the data prior to implementation of the PMTCT Guideline 2013, the implementation of the PMTCT Guideline 2013 appears to have meaningfully contributed to early enrolments onto ART for pregnant women eligible for ART. While the decrease in babies testing HIV-positive at six weeks can be said to be a success of the PMTCT Guideline 2013 implementation, achieving the set policy objectives and ultimately contributing to zero HIV transmission from mother to child, with an end result of an AIDS-free generation.

From a patient's perspective the primary intent of the PMTCT Guideline 2013 was to prevent the transmission of the HIV from mother to baby. The majority of participants indicated the policy benefits was to protect their babies from HIV, saving their baby's life or have a baby born HIV negative.

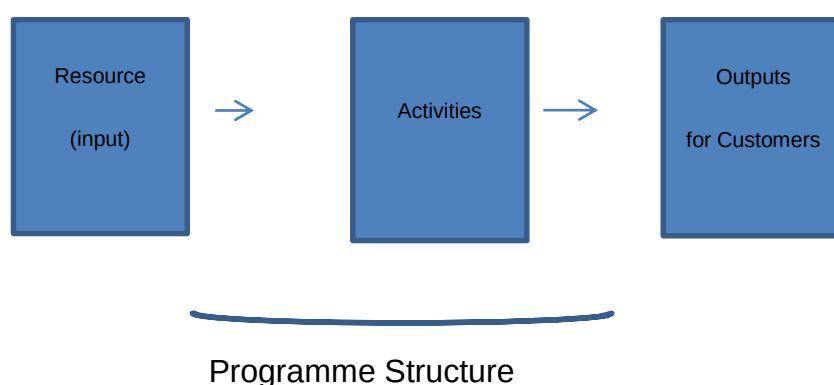
The PHCI respondents indicated having their babies born negative was a key consideration and driver for them enrolling onto the PMTCT programme. This decrease in transmission rate from mother to baby can thus be interpreted to mean that the patients' expectations were largely met with the PMTCT Guideline 2013 policy Implementation.

5.6 Recommendations

When applying the Logic Framework (as proposed in chapter 2), a plausible and sensible framework of how a programme will work under certain environmental conditions to solve identified problems, the elements of resources, activities, outputs,

short-term, intermediate-term and long term outcomes are applied (Wholey *et al.*, 2010:57-59). Applying this to evaluate the implementation of the PMTCT Guideline 2013, the programme structure was well paved centrally.

Figure 5.1: Basic Logic Framework



For future policy drafting or amendments, it is recommended to have the operational level engaged from the inception of the policy design, meaning that when these discussions are started at a provincial policy sphere, service representatives should be included. They will bring across the operational needs that should be considered before implementation. Including this in the planning phase of policy drafting will prevent problems further in the process.

The study further recommends that if service representatives are present during the design of the policy, they will be able to gauge what human resources, supply chain support, physical infrastructure and monitoring evaluation mechanisms need to be in place to support the policy implementation. Programme resource challenges manifested only once implementation commenced and the policy change was only then understood. The study recommends that with the inclusion of service representatives during inception work flow processes can be reworked in advance, tasking shifting can be planned in advance and the monitoring and evaluation systems could be changed according to the context and need.

The integration of PMTCT indicators in the monitoring and evaluation system of each MOU to capture the ART data on the electronic system posed a challenge which resulted in delays with capturing the data. The HAST Directorate M&E team needed

to provide increased onsite support to bridge this gap. When the PHCPI were asked if they could list any disadvantages in respect of the PMTCT Guideline 2013 implementation, no disadvantages with implementing the PMTCT Guideline 2013 were listed. Respondents felt that it has saved their lives and that of their babies. Thus patient satisfaction was achieved.

The study recommends that to improve local accountability, priority setting should be devolved to grassroots level along with control of the budget to support policy implementation. A further recommendation is to have community information sessions detailing when a policy of this nature is to be implemented. As the community members are key drivers to the success of choosing to either decline or take up/embracing a proposed policy, their involvement is an absolute necessity.

5.7 Conclusion

The Provincial Strategic Plan on HIV/AIDS, STIs and TB 2012-2016 had broad goals (Department of Health, 2012:2) namely: to reduce new HIV Infections by at least 50%, using combination prevention approaches; to initiate at least 80% of eligible patients on ART, with 70% of those alive and on treatment five years after initiation; and to ensure and enable an accessible legal framework that protects and promotes human rights, in order to support implementation of the National Strategic Plan 2012-2016. The objectives of the PMTCT Programme was cemented in the guidelines released during 2008, 2010, and 2013, focusing on the prevention of infection in women of child-bearing age, preventing unintended pregnancies amongst women living with HIV, preventing transmission of the virus from women infected to their unborn children and providing support to women living with HIV and their families (South African National AIDS Council, 2010:8).

The success of implementing the PMTCT Guideline 2013 is in measuring the programme outcomes, using the DORA Indicator set to measure if the objective of preventing transmission of the virus from women infected with HIV to their unborn children is a sufficiently pragmatic approach. The PMTCT Guideline 2013 reached its objectives in this regard as the transmission rate decreased over the four quarters following implementation. Providing combination prevention disease management to pregnant HIV-positive women yielded success. The Western Cape Province

Department of Health was, thus, successful in its approach to implementation, but valuable lessons with respect to decentralisation of policy implementation were learned. Decentralisation in the sense that operational inputs should be allowed from inception, with practical consideration to staffing, stock and equipment procurement, task shifting, re-designing facility process flows and amending M&E systems to accommodate for the revised policy implementation. The Province managed to initiate more than 80% of eligible HIV-positive pregnant women on ART, thereby ensuring the human rights of these women and their children were upheld as per the National Strategic Plan 2012- 2016.

Future research could expand the current study to other delivery sites and even other provinces where the treatment has been in line with the adoption of the PMTCT Programme.

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