Absorptive capacity to finance HIV/AIDS treatment in South Africa: Where are the bottlenecks?

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Abstract

This research investigates absorptive capacity in South Africa's public health sector in relation to scaling up financing for HIV/AIDS treatment. The thesis constructs a conceptual framework, which follows the flow of public funding for HIV/AIDS treatment. The study combines a quantitative budget analysis, which looks at expenditure and spending patterns, with qualitative in-depth interviews with key stakeholders exploring causes and consequences, which are the main pillar of the primary research. The study applies the conceptual framework nationally, as well as in the Free State and Western Cape provinces.

The contributions of the thesis are two-fold: At the conceptual level, the study defines and constructs an analytical framework of absorptive capacity and related bottlenecks in the context of funding for HIV/AIDS treatment in the public health sector. It identifies five major areas where bottlenecks may arise: financial, human, infrastructural, institutional (within the health system) and structural (outside the health system). At the empirical level, the study assesses and compares absorptive capacity and major bottlenecks encountered nationally and in the Free State and Western Cape provinces in respect of the public sector funding for the HIV/AIDS treatment programme.

The results confirm that absorptive capacity is not merely about spending funding. Spending should not compromise other programs or elements of the public health system, and it should be efficient, equitable and sustainable. The findings show that South Africa's absorptive capacity was constrained by several obstacles, such as poor practices and a shortage of human resources, insufficient financial capacity and demanding requirements of conditional funding, inadequate infrastructure, and inadequate national leadership. To overcome these obstacles, the mere injection of even more funding would be an insufficient response. Consequently, the study indicates which other reforms are required, including: further integrating antiretroviral treatment services within the public health structures; further decentralising antiretroviral treatment towards primary health care; task shifting;

balancing the conditional grant and equitable share; and enhancing coordination between the National and Provincial Departments of Health and with Treasury.

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Abbreviations

AIDS	Acquired immunodeficiency syndrome
ApUI	Appropriation utilisation index
ARK	Absolute Return to Kids
ART	Antiretroviral therapy
ARVs	Antiretroviral medicines
ASSA	Actuarial Society of South Africa
AUI	Allotment utilisation index
BPI	Budget programming index
CBO	Community-based organisation
CHBCS	Community home-based care and support
CHGA	Commission on HIV/AIDS and Governance in Africa
CSO	Civil society organisation
DHS	District health system
DoE	Department of Education, South Africa
DoH	Department of Health, South Africa
DPW	Department of Public Works, South Africa
DSD	Department of Social Development, South Africa
EOHSP	European Observatory on Health Systems and Policies
FBO	Faith based organisation
FFC	Fiscal and Financial Commission
FSDoH	Free State Department of Health
GDP	Gross domestic product
HAART	Highly-active antiretroviral therapy
HIV	Human immunodeficiency virus
HSRC	Human Science Research Council
HST	Health Systems Trust
IBP	International Budget Partnership (previously International Budget Project)
iCAM	Interactive Learning, Communication and Management
IDASA	Institute for Democracy in South Africa
ISEqH	International Society for Equity in Health

ITPC	International Treatment Preparedness Coalition
JCSMF	Joint Civil Society Monitoring Forum
JHTTT	Joint Health and Treasury Task Team
KFF	Kaiser Family Foundation
MBB	Marginal budgeting for bottlenecks
MDGs	Millennium Development Goals
MESH	Management Economic Social and Human
MRC	Medical Research Council
MSF	Médecins sans Frontières
MSH	Management Sciences for Health
MTEC	Medium Term Expenditure Committee, South Africa
MTEF	Medium Term Expenditure Framework, South Africa
M&E	Monitoring and evaluation
NASA	National AIDS spending assessment
NDoH	National Department of Health, South Africa
NGO	Non-governmental organisation
NHA	National health accounts
NHLS	National Health Laboratory Services
NT	National Treasury, South Africa
OACI	Overall absorptive capacity index
ODA	Overseas development assistance
ODI	Overseas Development Institute
PDoH	Provincial Department of Health, South Africa
PHC	Primary health care
PEPFAR	The United States President's Emergency Plan for AIDS Relief
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of mother to child transmission
PPP	Public-private partnership
R	Rands
RSA	Republic of South Africa
R&D	Research and development
SACOB	South African Chamber of Business
SANAC	South African National HIV/AIDS Council

SSA	Statistics South Africa
STI	Sexually transmitted infections
TAC	Treatment Action Campaign
TB	Tuberculosis
UCT	University of Cape Town
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNAIDS RST-ESA	UNAIDS Regional Support Team for Eastern & Southern Africa
UNECA	United Nations Economic Commission for Africa
UNDP	United Nations Development Programme
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children's Fund
USA	United States of America
VCT	Voluntary counselling and testing
WCDoH	Western Cape Department of Health
WHO	World Health Organization

CHAPTER 1 BACKGROUND AND RATIONALE

1.1 Introduction

> For truth, classically, is freedom, and from freedom in truth comes the capacity to build and plan and act better. HIV/AIDS in Africa calls us to unleash that capacity.
>
> Edwin Cameron in Lecture at Harvard Law School's Human Rights Program, April 2003 (Cameron 2005, p.138)

In 2007, about 33 million people worldwide were estimated to be infected with the Human Immunodeficiency Virus (HIV), of which 2.7 million had been infected that year (UNAIDS 2008). South Africa has the largest population living with HIV in the world, and also the highest number of orphans due to the Acquired Immunodeficiency Syndrome (AIDS) (UNAIDS 2008). It is estimated that about 5.7 million people were HIV-positive in South Africa in 2007, and that 350,000 died from the disease that same year. The extent of this epidemic and its devastating effects are posing serious challenges for the social, political and economic structures of South Africa.

Recently, a thus far unprecedented commitment to fighting the HIV/AIDS epidemic worldwide has resulted in substantial increases in funding for HIV/AIDS programs in Africa. This is also the situation in South Africa, where the HIV/AIDS funds in the 2004/05[1] budget were nearly seven times larger than the funds in the 2000/01 budget (Hickey et al. 2004). Moreover, the *Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa* (hereinafter referred to as the Comprehensive Plan), launched by the South African government in November 2003, emphasises the need for sustained increases in financing. In 2007, South Africa was the country with the largest number of people on antiretroviral therapy (ART) in the world.

However, despite increasing HIV/AIDS budgets, it is argued that spending of such allocated funds has been slow (Steward and Loveday 2005). In some provinces, in fact, the allocated funds have not been fully spent (Hickey et al. 2004). The

[1] The South African financial year runs from April to March. Thus, the year 2004/05 refers to the financial year that goes from April 2004 till March 2005.

increasing challenge for HIV/AIDS policies in South Africa seems to lie in utilising these newly available funds for the effective implementation of programs (Hickey et al. 2004). South African provinces, which are responsible for implementing health programs, have experienced increasing spending pressures, which are likely to continue in the near future (Hickey et al. 2004). There is a danger, however, that pressures to spend public HIV/AIDS funds quickly may compromise their efficient utilisation and the achievement of optimal outcomes.

Why are HIV/AIDS funds not fully utilised? International organisations point to the lack of absorptive capacity of health systems as holding back the utilisation of HIV/AIDS funding (Global Health Council 2004; Lu et al. 2006; UNAIDS 2008; World Bank 2005; WHO 2004). This is especially true for the case of scaling up HIV/AIDS treatment in resource-limited settings. International institutions refer to absorptive capacity as the ability to train more doctors, to build more health facilities, to manage more programs, and other prerequisites for establishing and scaling up HIV/AIDS related services. The problem is thus a lack of 'spare' capacity in a system that could be employed by new programs. It is argued that health systems with limited resources are already weak and overwhelmed, and hence lack the capacity to introduce new programs without compromising existing ones. This is particularly relevant for complex interventions, such as ART. The concepts of absorptive capacity and bottlenecks are defined in Chapter 3.

These challenges are mirrored in the case of South Africa and the implementation of the Comprehensive Plan. Since this plan was launched, the program has continuously been behind its targets. Although it seeks to provide equitable access to comprehensive ART treatment and care to all South Africans who need it by 2008 within their own municipality, only around 28% of people in need were actually accessing it by December 2007 (WHO et al. 2008). Barriers are encountered in several areas, such as human resources, financial management and infrastructure. Thus, it is crucial at this point to examine the interplay between absorptive capacity and HIV/AIDS policies in South Africa in order to ascertain how all available resources can be utilised effectively to combat the epidemic.

1.2 Importance of the topic

National and international HIV/AIDS funding in South Africa has grown rapidly over the last few years and is expected to grow further in the near future (Hickey et al. 2004; UNAIDS 2004). Nevertheless, there are concerns that the benefits of such funding may be limited due to insufficient ability to spend and utilise such resources. Some provinces have shown difficulties in spending funds to deliver interventions in terms of the Comprehensive Plan and to build new health infrastructure, especially at the beginning of the new program.

Furthermore, as difficulties are mostly felt in the areas with less capacity, those provinces with higher absorptive capacity (richer provinces) will benefit the most. This would put at risk the equitable allocation of resources, as stipulated in the Comprehensive Plan. There are signs that provincial underspending in South Africa may cause reallocation of resources towards provinces with stronger performance records. This trend was pointed out by the National Treasury in the *2003 Division of Revenue Bill* (NT 2003a). This jeopardises the equity principle in the distribution of health resources.

In addition, the overall equilibrium of the health system may also be compromised when allocation of resources among health interventions is distorted by new priorities. As pointed out by Steward and Loveday (2005, p.24) "the introduction of the Comprehensive Plan onto [sic] an already over-burdened public health system with too few staff may result in reallocation of these scarce resources, possibly to the detriment of other core services". Only by clarifying the nature of the risks involved with regard to absorptive capacity will it be possible to plan adequately for an efficient and integrated response.

These challenges are echoed internationally. There is a growing concern around absorptive capacity as a major obstacle for scaling up HIV/AIDS policies and, in particular, ART programs (Bennett and Fairbank 2003; Copson and Salaam 2003; Lewis 2005a; Over 2004; Schneider et al. 2004; UNAIDS 2006a; UNAIDS RTC 2006). HIV/AIDS funding has grown rapidly and steadily worldwide since the

United Nations General Assembly Special Session (UNGASS) on HIV/AIDS in 2001. The rationale behind these rapid increases is that early interventions can have a dramatic impact on reducing new infections, and thereby halting the epidemic (MSH 2005).

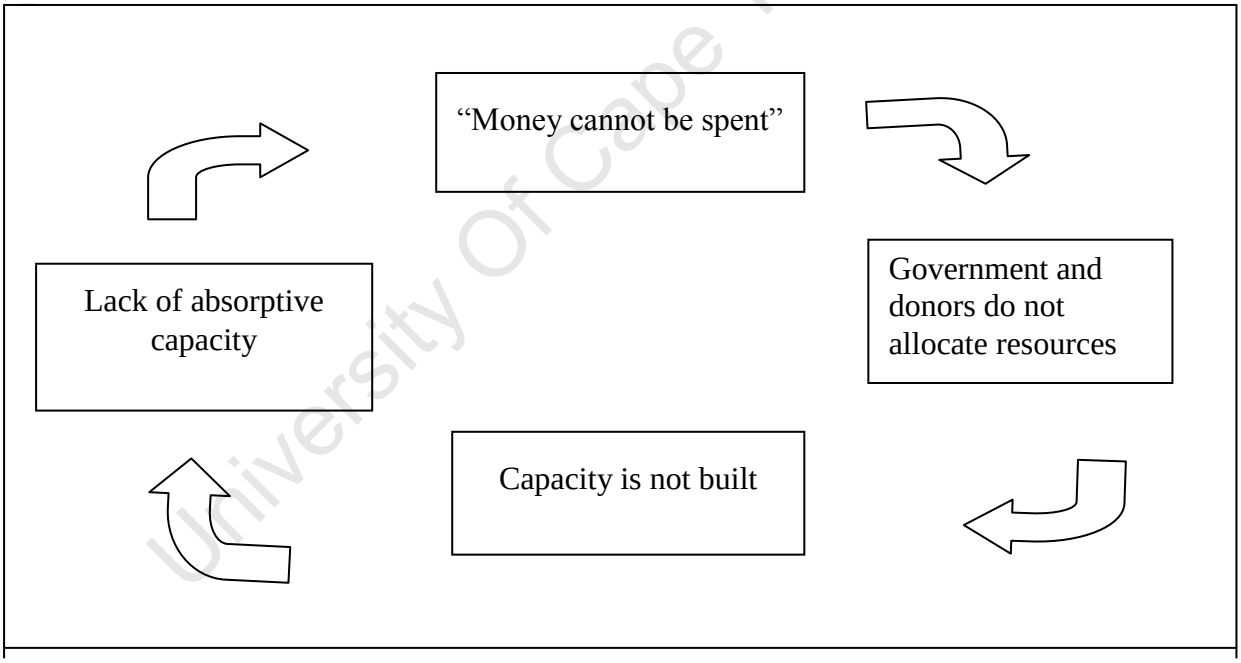
Moreover, recent commitments point to the need for substantial increases in funding in order to scale up access to ART, particularly in low- and middle-income countries, which may accentuate even further the challenges around absorptive capacity. In 2003, the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) launched the strategy called "3 by 5", which sought to treat with ART 3 million people living with HIV/AIDS in low- and middle-income countries by the end of 2005 (WHO and UNAIDS 2003). Although the target was not achieved at that time, access to treatment was significantly expanded. In two years, the number of people being treated in low- and middle-income countries more than tripled, and in Sub-Saharan Africa it increased by more than 800% (WHO and UNAIDS 2006). As a result, more than 1.3 million people in low- and middle-income countries were receiving treatment in 2005 (WHO and UNAIDS 2006), rising to 2 million by December 2006 (WHO et al. 2006). The international commitment to continue scaling up ART access increases. In 2006, the United Nations (UN) General Assembly High-Level Meeting on HIV/AIDS agreed to work towards the goal of universal access to comprehensive prevention, treatment and support, by 2010. This commitment translated into reaching the 3 million people on ART in 2007 (WHO et al. 2008). These fast advances indicate that not only higher levels of funding but improved absorptive capacity will be needed to achieve the goals of expanding treatment to all people in need of such treatment.

Furthermore, not only is the magnitude of HIV/AIDS funding a factor, but also the speed at which such funding grows. The high priority given to ART programs in order to achieve goals quickly may lead to the rapid spending of funding. In addition, when the performance of a grant is assessed partly by how much and how quickly resources are actually spent, the incentive is to spend quickly, overlooking the real and effective absorption of funding. This may lead to the non-efficient allocation of funding. Moreover, it has also been argued that the current trends of rapid increases in international aid for HIV/AIDS may increase corruption among

officials, especially where health systems are fragile and there is insufficient monitoring (Transparency International 2006). All these factors feed into current debates on the extent to which countries can absorb increasing funds.

At the same time, it is feared that current claims that the absorptive capacity is insufficient may hinder the actual disbursement of the required funding, and that it will ultimately put further increases in financing at risk. This problem can be illustrated as a vicious circle, represented in Figure 1.1: a lack of absorptive capacity leads to money not being spent, which prevents the allocation of resources; consequently, capacity is not expanded, thereby reinforcing the deficiency of absorptive capacity.

***Figure 1.1*: The vicious circle of the absorptive capacity debate**



Source: Adapted from Teixeira (2004, p.2)

In fact, other authors have argued that the problem of absorptive capacity has been overstressed even though there have not been proper studies done, and that it has furthermore been used to justify the insufficient increases in HIV/AIDS funding. Utan (2004, p.15) places the discussion about absorptive capacity in the context of HIV/AIDS policies by questioning the utilisation of the concept as "a prerequisite for care or an excuse for inaction". Along the same lines, a member of the Global Fund recognises:

> There is a problem. There are issues of absorptive capacity. But it has been elevated to the status of a myth. And now it's being used as an excuse - or to back up arguments against providing more resources. (Dr. Moghalu, in AllAfrica 2003, p.1)

Thus, it is crucial at this point to clarify to what extent the lack of absorptive capacity is hindering the utilisation of funding and the implementation of HIV/AIDS programs, and to identify the specific bottlenecks that are being created in order to design appropriate responses to these problems.

To respond to those questions it is necessary to study the constitutive elements of absorptive capacity in the context of HIV/AIDS policies. This is not a straightforward endeavour. The problem lies in the absence of a widely accepted solid theoretical framework for the analysis of absorptive capacity (Asian Development Bank 2003). Questions like 'how is absorptive capacity measured?' and 'what indicators can be used to decide if health systems are ready to expand?' do not have a systematic, evidence-based direct answer. As a result, policy-makers lack the tools to assess what level of absorptive capacity would allow the utilisation of new funds.

With regard to ensuring the effective implementation of HIV/AIDS treatment policies, several gaps in scientific investigations remain, which challenge the institutional efforts of controlling the epidemic. It is crucial to watch closely the actual utilisation of HIV/AIDS funds and to assess accurately the actual realisation of the objectives, in order to take advantage of the opportunities granted by additional funding to control this epidemic and to improve health services overall.

1.3 Aim and objectives

This research aims to advance the existing body of knowledge of HIV/AIDS financing policies in relation to absorptive capacity in the South African context. The meaning and scope of absorptive capacity in the context of financing HIV/AIDS treatment policies in South Africa is defined in Chapter 3 of the thesis. The ultimate purpose of this study is to provide policy makers with strategic choices for the

efficient allocation of HIV/AIDS funding in order to strengthen the outcomes of South Africa's HIV/AIDS treatment policies.

The study consequently has the following research objectives:

- To explore the meaning and constituent elements of absorptive capacity for public sector HIV/AIDS financing.
- To investigate the extent to which insufficient absorptive capacity hinders the spending of available funding and delays the implementation of public ART programs in South Africa.
- To identify and understand the major bottlenecks, or points of congestion, hindering the absorption of HIV/AIDS treatment funding in South Africa's public health sector.
- To explore feasible and appropriate options to unblock these bottlenecks in South Africa's public health sector.
- Based on these findings, to make recommendations on how best to expand the absorptive capacity of HIV/AIDS treatment financing in South Africa's public health care sector.

1.4 Expected results

This study aims to contribute to the understanding and improvement of government responses to HIV/AIDS treatment in South Africa. It is expected that the findings will be useful for supporting practical action in response to the HIV/AIDS epidemic, as well as for strengthening the performance of the South African public health system. In particular, this thesis aims to contribute to the existing body of knowledge and practice on HIV/AIDS policies on two major fronts:

*With regard to the conceptual analysis of absorptive capacity, the study aims to do the following***:**

- To explore the concept of absorptive capacity and major related issues in the context of HIV/AIDS treatment policies in Africa.

- To review theories from the disciplines of economics and public health and their relation to absorptive capacity of HIV/AIDS financing in the public health sector.
- To disentangle the nature and severity of the major barriers hampering the utilisation of HIV/AIDS treatment financing in the public health sector.

With regard to the South African case, this study sets out to do the following:

- To contribute to the existing knowledge on South Africa's public health system in relation to its capacity to respond to the HIV/AIDS epidemic.
- To investigate and clarify the major obstacles hindering the effective use of the increasing funds being allocated to public sector HIV/AIDS treatment policies.
- To provide a comparative analysis of the different levels of capacity for, and obstacles to the implementation of public sector HIV/AIDS treatment programs in South Africa.

Overall, it is expected that the findings of this research will be useful in ascertaining policy options and supporting practical action to improve South Africa's capacity to benefit from increased HIV/AIDS funding.

1.5 Thesis outline

The thesis is divided into ten chapters. Chapter 2 presents the methodological approaches applied in the study. Chapter 3 reviews the theoretical and empirical literature, and provides the conceptual framework for the analysis of absorptive capacity and the assessment of the bottlenecks encountered by public HIV/AIDS treatment funding. The background on HIV/AIDS treatment and financing policies in South Africa is outlined in Chapter 4. Chapter 5 discusses the HIV/AIDS budgets in South Africa. The empirical findings of the research are presented in Chapters 6 to 8. The study findings are discussed in Chapter 9. Finally, Chapter 10 presents updates to the study findings in the light of more recent events, and it explains their implications. It furthermore reviews the contributions and limitations of this

research, reflects on the generalisability of the study, and identifies areas for further research.

CHAPTER 2 STUDY DESIGN AND METHODS

2.1 Introduction

The case study approach is used in this research as the vehicle of inquiry. A distinctive element of the case study method is that "it investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin 2009, p.18). This close relationship between the phenomenon (viz. difficulties in absorbing HIV/AIDS funding) and the context (viz. the HIV/AIDS epidemic, the health system in South Africa and the HIV/AIDS financing policies) is evident in the research presented in this thesis. The case study is also of an explanatory nature, as this approach is particularly suited "to explain[ing] the presumed casual links in real-life interventions that are too complex for the survey or experimental strategies" (Yin 2009, p.19). The complexity of factors to be explained in this particular research reinforces the use of the case study method.

This thesis combines a theoretical review of the concepts and theories of absorptive capacity with both a budget analysis and with fieldwork to explore perceptions of the problems affecting HIV/AIDS public expenditure in South Africa. The research thus combines an analysis of national health policy goals and expenditure with operational research. It brings together several disciplines, including economics and public health.

This methodological approach thus encompasses a literature review and an analysis of new data gathered in the fieldwork, as well as combining quantitative and qualitative methods of inquiry. The literature review is used to develop the background to this topic and to outline the theoretical framework. The absorptive capacity for HIV/AIDS funding in Provincial Departments of Health (DoHs) in South Africa is explored first through quantitative analysis, and thereafter complemented with an application of the qualitative fieldwork in order to enrich, explain and fill the gaps left by the budget analysis. The use of both methods has been praised by other researchers (Carvalho and White 1997;Creswell et al. 2004;

O'Cathain et al. 2007) as being the most appropriate when neither approach can be relied upon to provide the full information required. A mixed methods type of research allows us to gain a greater understanding of the issues being studied, as it addresses different aspects of the research question, which would not be possible if only one of the two methods was used (O'Cathain et al. 2007). This combination of methods furthermore corresponds to the double nature of the objectives of this investigation, combining basic and applied research, as defined by Hart (1998). Firstly, basic research is used to define the concept of absorptive capacity in the given context; and secondly, applied research is used to determine the major bottlenecks to spending in the specific case under study.

2.2 Literature review

Chapter 3 develops a conceptual framework for the study of absorptive capacity in relation to HIV/AIDS financing, by building on a review of related theoretical and empirical literature from inside and outside South Africa. This literature relates to both the fields of HIV/AIDS and health financing but also to the broader fields of economics and public health.

A review of the literature is also employed in Chapter 4: this summarises the existing knowledge on the HIV/AIDS epidemic in South Africa, and the government's response to this epidemic, in particular the treatment plan. In addition, it maps out the stakeholders and major financial mechanisms around HIV/AIDS financing policies in the country. Chapter 4 draws largely on existing South African literature and data available from the following: (a) government sources, specially the National and Provincial Departments of Health (PDoHs) and the National Treasury; and (b) studies by other organisations, such as research institutions and non-governmental organisations (NGOs), e.g. the Actuarial Society of South Africa (ASSA), the Institute for Democracy in South Africa (IDASA), the Joint Civil Society Monitoring Forum (JCSMF), and the Health Systems Trust (HST). An update of latest events related to the Comprehensive Plan is provided in Chapter 10.

Chapters 3 and 4 follow the business process management (BPM) approach in describing the mechanisms of financing and implementation of the Comprehensive Plan. BPM consists of "the explicit representation of business processes with their execution and the execution constraints between them", where a business process is defined as "a set of activities that are performed in coordination in an organizational and technical environment" (Weske 2007, p.5). Thus, these chapters describe the components and interactions in the chain that goes from the public financing of HIV/AIDS treatment (input), via the implementation of the activities by the public health system (process), to the consecution of targets (outputs).

2.3 Quantitative research through budget analysis

The quantitative part of the research is undertaken through an analysis of public expenditures relating to HIV/AIDS in South Africa. As the literature review in Chapter 3 shows, such an examination of expenditure and – more specifically – of spending the available budgets is the first tool used to assess absorptive capacity. Thus, the quantitative investigation commences with this examination. The use of financial allocations and processes involved in public budgeting has been previously highlighted as a crucial tool for understanding and revealing social and political processes, which go well beyond financial trends (IDASA 2007; Norton and Elson 2002). The examination of national and provincial HIV/AIDS expenditure within the health budgets is provided in Chapter 5.

The quantitative analysis of the expenditure is undertaken from the financial year 2000/01 up to Medium Term Expenditure Framework (MTEF) estimates for 2008/09. This analysis draws attention to the spending patterns, and compares the two main HIV/AIDS funding streams in the country: (a) HIV/AIDS funds that have been transferred from the National DoH (NDoH) to the Provincial DoHs through conditional grants; and (b) funding allocated to HIV/AIDS programs from the equitable shares sent from the National Treasury to the Provinces. The South Africa government launched the HIV/AIDS conditional grant as the main mechanism of funding HIV/AIDS programmes. These grants can only be used for specific activities, and provinces must report their expenditure to national government on a

quarterly basis. This mechanism contrasts with the funding allocated through the equitable share mechanism, in terms of which funds are allocated by National Treasury to provinces at their own discretion. These two mechanisms are described and analysed in Chapter 4. This investigation focuses only on HIV/AIDS expenditure within the PDoHs. It does not examine the HIV/AIDS conditional grants sent to the Department of Education (DoE) and the Social Development Department (DSD); although these are important for ensuring a multisectoral approach and thus for an effective response to the HIV/AIDS epidemic, they are beyond the scope of this research.

The budget data used in Chapter 5 are those, which were available in May 2006: audited financial statements for years 2000/01-2004/05 (thus actual expenditure); pre-audited financial statements for 2005/06; current allocations for 2006/07; and budgeted projections over the MTEF (prior to adjustments and rollovers) for 2007/08 and 2008/09. Calculations in Chapter 5 are based on the budget data available in May 2006 in order to reflect accurately the information available at the time of the fieldwork. Calculations have been updated in Chapter 10 with data available in January 2009.

The use of different sources, i.e. actual expenditure and current allocations and actual expenditure vs. projected budgets,,may systematically bias the analysis, resulting in lower HIV/AIDS budget increases, for two reasons. Firstly, for the years 2000/01-2004/05, when audited actual expenditure is used, it is argued that there was underspending of budgets; this means that the initially budgeted amounts were higher than the actual figures spent. Secondly, the projected figures used for 2007/08-2008/09 are claimed to be mere increments over the baseline, and lower to what the budgets would be (see later in the chapter).

This analysis draws on data available from budgets reports (Budget Reviews, Medium Term Budget Policy Statements, and Division of Revenue Bills) from National and Provincial Treasuries and DoHs. Data on the spending of conditional grants is regularly available because provinces are required to submit quarterly reports to the NDoH on conditional grant expenditure. Transfers through equitable shares, however, are more difficult to track.

Estimation of discretionary funding for HIV/AIDS

The estimations of equitable shares in Chapter 5 need to be taken with caution as there may be deficiencies in the calculation. Unlike conditional grants, HIV/AIDS allocations made from equitable shares are not easy to track due to the lack of readily available data, as they are allocated by the province at their discretion and are not audited in as much detail as conditional grants, nor as often. Thus, discretionary funding needs to be estimated. This thesis calculates discretionary funding by subtracting the earmarked expenditure from the total HIV/AIDS payments reflected in the HIV and AIDS sub-program in provincial budgets (NT 2006a-2006i). This method is also employed in the research of IDASA (Ndlovu and Daswa 2006a; Hickey and Ndlovu 2005).

However, the HIV and AIDS sub-program in provincial budgets was only standardised in 2003/04, as part of the District Health Services Program Budget Line (NT 2003b). Thus, the earlier estimates for 2000/01 and 2001/02 are not calculated in this manner, and come from National Treasury (2006j-2006l). Hence, deviations in estimates may partly reflect changes in estimation practices. There was not enough information available to recalculate the estimates for these two years using the same approach as in later years. Overall, although there may be deficiencies in the calculations, the use of these approximations remains valid to identify trends in time.

2.4 Qualitative research through in-depth interviews

The main fieldwork strategy is based on qualitative investigation undertaken through in-depth qualitative face-to-face interviews. Chapters 6, 7 and 8 present the findings of these in-depth interviews. Field visits were used in order to fill in the gaps left by both the literature review and budget analysis. In addition, in-depth interviews were the tool used to assess and understand the major bottlenecks and obstacles to HIV/AIDS spending. Hence, interviews were the main pillar of the research, providing not only updated financial and operational information, but also making it

possible to gain a greater understanding of the critical issues in relation to absorptive capacity and problems with spending, as provided by selected key informants.

The use of qualitative research in assessing health system performance nevertheless has its limitations. Qualitative research is often criticised for its lack of rigour and credibility, and for not being clear or theory-based (Mays and Pope 2000; Neergaard et al. 2009). Subjectivity is also strongly present in qualitative work, emanating both from the positions of the informant and the researcher. Their perceptions, inclinations, or even the circumstances in which the research takes place may strongly determine or shape the result of the investigation and its interpretation.

The qualitative part of the study thus has several limitations; results emanating from the interviews are subjective and dependent on the participants interviewed, on how interviews were conducted, and on how data was analysed by the researcher. They nonetheless shed important light on what is thought and believed in relation to ART financing and implementation in South Africa by crucial stakeholders. The approach taken in the qualitative part of the study concurs with the grounded theory perspective, which "focuses on understanding human behaviour from the research subjects' perspective. It supposes that, to understand behaviour, what people believe to be true is often more important than objective reality" (Huston and Rowan 1998, p.2455-2456).

Several authors defend the validity and usefulness of qualitative techniques in medical research (Huston and Rowan 1998; Mays and Pope 2000; Neergaard et al. 2009). Mays and Pope (2000, p.51), for example, hold that, although research involves subjective perception and although it is important to consider the means employed and the perspective adopted, "there is an underlying reality which can be studied". The authors conclude that, in qualitative, as well as in quantitative research, the basic strategy to ensure rigor is "self conscious research design, data collection, interpretation, and communication" (Mays and Pope 2000, p.52). The following sections explain how these interviews were prepared and conducted, and how their results were analysed.

A Selection of participants

The qualitative study was based on purposeful sampling, rather than random sampling. Purposeful sampling is the most common technique in qualitative research (Devers and Frankel 2000). In-depth qualitative interviews were thus conducted with personnel working in the financing and/or implementation of the Comprehensive Plan at national or provincial levels, and with representatives of other key organisations also working in the same area of study. Participants were selected through purposeful sampling, using their position or focus of work, and their relationship with the topic as criteria. Participants were thus selected for being 'information rich' and for being able to provide personal and professional insights into the area of study. Chapter 4 maps out the stakeholders around the Comprehensive Plan and their relationships in order to understand how their influence is exercised.

A total number of 42 interviews were conducted during the research. Table 2.1 below classifies interviewees according to the organisation to which they belong, and its location (see Appendix 1 for a more detailed description of respondents' profile). Nonetheless, this classification is not definitive. Often many of the participants belonged to one organization but were doing work for another one. Many academics or researchers, for example, were working for the National or Provincial DoHs, as consultants, members of an, advisory team, or participants of a project. Also, some interviewees were working for a national organization but were based in one of the provinces and thus had particular knowledge about that province. Thus, the categorization of interviewees would look quite different if it was based on the area of expertise of interviewees rather than on affiliation.

Table 2.1: **Number of people interviewed in national and provincial government departments and outside government***

	South Africa	Western Cape	Free State
DoH	6	6	7
Treasury	1	2	3
Outside government	9	2	5

* There was one further interviewee from local government.

In order to access both 'insider' and 'outsider' perspectives, respondents from both within and outside the public sector were chosen. A potential limitation of this study is that interest groups have their own agendas and that therefore their opinions on a particular programme may be biased and guided by the interest they represent. Hence, the participation of different and opposing interest groups as a triangulation technique is used to enhance the comprehensiveness and validity of the research, as supported by Mays and Pope (2000). Furthermore, the large number of in-depth interviews enhances the comprehensiveness of the resulting outputs. In addition, many participants belonged or related to more than one organisation, often both within and outside government. As a result, they interacted with several of the interests groups represented, which meant that they were able to offer a more comprehensive perspective on the issues discussed and on the differences between organisations.

Within government, two departments were selected: the Treasury and the DoH, both at national and provincial levels. Within the DoH, the team responsible for the implementation of the Comprehensive Plan was chosen. The main selection criterion with regard to the participants outside government was that their research or involvement in this area had to be related to the study topic. The snowball sampling technique was also used in order to identify other important participants. At the end of each interview, participants were asked to suggest other relevant informants who could be interviewed.

Because the focus of the research is on the public ART programmes, no participants were selected from the private-for-profit sector delivering ART. The private-for-profit sector is regarded as a central actor in health policy making (Buse et al. 2005),

and it carries out several ART programmes in South Africa. This is a limitation of the study, as this sector could have added another interesting perspective to the delivery of ART in South Africa; however, it was excluded because it was outside the focus of the research, which was centred in public programmes.

The potential participants were contacted by fax, email or telephone, and sent presentation letters informing them of the purpose of the study, the relevance of the study to his/her organisation and/or personal work, the estimated time needed for the interview (1 hour), and the expected benefits for their organisation. Presentation letters were accompanied by a copy of the research proposal and/or a 1 page summary, the letter of authorisation for the research from the Ethics Committee, and the *curriculum vitae* of the researcher. When the participants requested more information on the particular issues for discussion, a copy of the interview guide was sent to them. They were also asked to sign a consent form before the interview began.

Most of the people contacted agreed to be interviewed. When this was not the case, it was either because (a) the contacted individual agreed to participate but appointments were postponed on repeated occasions, which meant that the said interview could not be conducted before the research was completed; (b) informal conversations had taken place previously with the individual, which the individual regarded as sufficient to incorporate his/her views; (c) the individual requested permission from his/her organisation to participate in the research, but was never granted such permission. In fact, one interview was conducted informally and off the record, with the responses not included in the research because the participant could not obtain the necessary authorisation from his/her superiors to participate in such research.

B Sequencing of interviews

Interviews took place in three major phases: the first at national level, the second in the Western Cape province, and the third in the Free State province. The first phase interviews were conducted with personnel responsible for the financing and implementation of the Comprehensive Plan at the NDoH, in the National Treasury,

and in organisations doing related research at the national level. These included: the South African National AIDS Council (SANAC), the Medical Research Council (MRC), IDASA, HST, the Human Science Research Council (HSRC), UNAIDS, the Centre for Health Policy of the University of Witwatersrand, and the Global Fund for HIV/AIDS, Tuberculosis and Malaria (the Global Fund). These interviews explored the perceptions of the interviewees on the concept and characterisation of absorptive capacity; the identification of the bottlenecks; the implications for the strengthening of health systems and for the principles of equity, efficiency and sustainability. The analysis of the information gathered during the first round of interviews prompted a revision of the interview guides for the next phases of data collection.

The interviews in the Western Cape and the Free State applied the framework of study, refined through the first round of interviews. The Western Cape was studied first, as it is the most advanced province in terms of the distribution of ART. In both provinces, the respective managers of the Comprehensive Plan at the Western Cape DoH (WCDoH) and the Free State DoH (FSDoH) were initially contacted in order to obtain their permission for the study and to identify the major problems for the absorption of funds in the region. Next, provincial interviews targeted the financial managers as well as those managers within the PDoH responsible for the major areas identified as problematic, such as human resources or drug management. At the same time, interviews were conducted within the Provincial Treasury and stakeholders outside government, both within academia and research institutions. Additional interviews were conducted following referrals provided in these interviews.

Some participants were contacted after the interview to follow up with them, to clarify responses, to update data, to develop ideas or issues further, and to collect data not available at the time of the initial interview. Follow-up contacts were done via email or another face-to-face interview, depending on the nature and duration of the follow-up issues, as well as the availability of the participant.

C Data collection through in-depth qualitative face-to-face interviews

In-depth face-to-face qualitative interviews were the main tool used to collect data in the field. The use of intense open-ended interviewing benefited the research in that participants were able to express their opinions and assessments in their own words, thereby adding depth, detail and meaning to the issue investigated (Patton 2002). Face-to-face interviews are also an opportunity to obtain not only information, but also the participant's interpretation of such information (Mack et al. 2005). The research was thus built on the value of detailed first-hand information in deepening our understanding of the issue of absorptive capacity in South Africa. This method was preferred over more structured questionnaires for enhancing the depth of information collected in the participants' own voices. Interviews are furthermore preferred over focus groups when sensitive topics are discussed, as groups might limit or even prevent open discussions (Mack et al. 2005).

Face-to-face interviews further involved direct and personal contact with participants in their own environments. All interviews were conducted by the researcher. This facilitated the researcher's understanding of participants' contexts and issues, which enhanced the understanding of their contributions. Nevertheless, a balance was pursued between closeness and empathy with the participant on the one hand, and distance and neutrality towards the information and opinions provided on the other, as is recommended for this type of research (Patton 2002). By having personal contact with the participants through the interviews in the participants' own context, the researcher could also observe and thus understand their environment better. At the same time, by engaging exclusively through the interview process, the research aimed to maintain neutrality and an image of being external and detached. This balance is what Patton (2002) refers to as 'empathic neutrality':

> At first, the phrase "emphatic neutrality" may appear to be an oxymoron, combining contradictory ideas. Empathy, however, describes a stance toward the people on encounters –it communicates understanding, interest, and caring. Neutrality suggests a stance toward their thoughts, emotions, and behaviours – it means being non-judgemental. (Patton 2002, p.53)

The fact that the same researcher was solely responsible for data design, collection and analysis enhanced the clear and systematic communication of information in the interviews, both from the interviewer to the interviewee and vice versa, as well as the assimilation and understanding of the resulting inputs.

Interviews were recorded using a small digital recorder. The advantage of this was that it was not perceived as intrusive by the participants, which was one of the dangers of using a recording device. This was thanks to the digital recorder's small size and its simplicity as compared to tape-recorders, as it did not make any noise nor did it require turning or swapping the tape during the course of an interview. In fact, it was noted that participants often tended to forget about the recording, thus facilitating their relaxation and openness during the course of the interview. Moreover, digital technology also made it easier to make back-up copies of the recordings for quick transmission to the transcriber. The interviewer verbally requested the respondents' permission to tape the interview as well as via the consent form signed by all respondents before the interview. No interviewee requested to see the transcription of his/her interview.

D Interview guides

All interviews used structured interview guides with pre-prepared questions on strategic themes previously identified in the literature review. This helped with systematically collecting data from all groups of participants and gaining the most value from the interview time. In addition, it facilitated the grouping of responses, showing common and diverging points of view, while seeking patterns across experiences and perspectives.

The guide developed for the interviews was not applied uniformly across all interviews, however; questions were adapted to the participants being interviewed. Some parts were common across all interviews, whereas other parts varied, depending on the position and area of specialisation of the participant. There were some standard questions for specific positions, such as for financial officers, for human resources officers, and for chief pharmacists. For these, very specific questions were added to the particular theme of interest to maximise the expertise of

the participant in that area. Appendix 2 contains several examples of the interview guides used in the various in-depth interviews.

The approach followed was a mixture between a general interview guide and the standard open-ended interview, as described by Patton (2002). This combination consisted of the preparation of a detailed interview guide before the interview, where not only issues but specific questions were worded and sequenced in detail (as in the standard open-ended interview); at the same time, the interviewer had flexibility in determining when it was appropriate to omit some questions, change the order, or explore certain subjects in greater depth (as in the general interview guide).

In other words, the in-depth interview guide provided a framework and full set of questions, to be used or omitted by the interviewer at her own discretion during the course of the interview. The interviewer was thus making decisions along the way about which information to pursue in detail, and hence making it possible to pursue issues that arose in the course of the interview but that had not been included in the interview guide. The interviewer used the interview guide as a tool to guide the interview, rather than as an end in itself. This flexibility was possible as all interviews were conducted by the investigator, who was able to take such decisions. In words of Yin (2000, p. 71), the approach was "to balance adaptiveness with rigor – but not rigidity".

Interview guides consisted of both open-ended and multiple choice questions, adapted to the different issues under study. Firstly, open-ended questions were designed in order to capture participants' opinions and perspectives in their own words, using their own categorisations, and even the depth of emotion in relation to the issue being discussed (Patton 2002). For example, open-ended questions were used to explore the issue of absorptive capacity, in order to capture the opinions and positions of the interviewees in their own words. The responses to open-ended questions are believed to be more limited when collected through self-administered interview guides, due to the writing skills and time required (Patton 2002). However, in this research, participants were not asked to fill in a questionnaire; instead, the interviewee asked the questions and recorded the oral responses, thus saving time

and allowing for fuller explanations by the participants, including the use of follow-up questions.

Secondly, multiple choice questions were used to collect and compare participants' opinions systematically across similar issues. The main purpose of this to identify major bottlenecks and obstacles encountered in the spending of funds for the Comprehensive Plan. During the course of the interview, participants were shown a table (Table 3.2 in Chapter 3), illustrating the potential bottlenecks and obstacles; they were then asked to comment on which of these applied to South Africa and/or their province. The use of multiple choice questions for this issue enabled comparisons to be made across responses, and it simplified the final assessment of bottlenecks and obstacles experienced in spending HIV/AIDS funding. In this case, the use of multiple choice questions was preferred over that of survey techniques because it made better use of the bottleneck framework of the study, facilitating comprehensive and fast responses by interviewees. In particular, it helped participants to cover a wide range of possibilities, instead of commenting only on the first possibilities that came into their minds. Although participants were asked whether they wanted to add any elements not included in the table, it is likely that the pre-selection and classification of issues in Table 3.2 influenced their responses to some extent, and that this could be regarded as another limitation of the qualitative data gathered.

E Data synthesis and analysis using NVivo qualitative software

The analysis of the data collected combined both inductive and deductive approaches: inductive reasoning in using the data to generate ideas, and deductive reasoning in confirming pre-determined hypotheses and findings (Thorne 2000). For example, the exploration of the concept of absorptive capacity, which is dealt with in Chapter 6, follows an inductive approach, whereas the confirmation or not of the potential bottlenecks confronted, which is dealt with in Chapter 7, is a deductive enquiry. This combination corresponded to the mixed nature of the questions themselves, and was adapted during the course of the research project's evolution.

All interviews were recorded, and transcribed either by the researcher or by a professional transcriber. Transcriptions were then entered and analysed in a systematic way through the qualitative research software NVivo 7, the most recent version of NVivo available at the time. NVivo provides a rigorous tool for the analysis of qualitative data, and it is designed to assist in the categorisation, classification and analysis of non-structured data. NVivo works around a codification of data, assigning data to categories previously defined by the analyst, and in this case according to the themes and questions in the interview guide. NVivo is highly recommended for research that follows the grounded theory approach (Gibbs 2002).

The use of this program allowed for the assimilation of complex narrative data through matrices that connected the related issues. The program also works with cross-cutting themes without altering the information. The challenge of using such qualitative computer software is that the researcher may rely too much on building up the data set and organisation by means of codes and labels, thereby deflecting the researcher's attention from the actual analysis of information and interpretation of results. However, the program does facilitate gaining analytic distance through tools for identifying relationships and cross-referencing ideas across different data inputs, thus enabling better reflection on the information. In addition, the systematic compilation and classification of information through the program made it possible to identify patterns quickly and to capture relevant insights. Hence, the use of NVivo 7 supported the qualitative methodology of this research, thus enhancing the quality of the study.

Data was coded and organised according to a set of nodes, which initially follow the themes in the interview guide. This facilitated the classification of data and the categorisation of inputs. There were three types of nodes: free nodes, which were independent; tree nodes, which had ramifications; and case nodes, which referred to the case studied.

During the course of the analysis, some categories were identified as non-relevant, while new categories were added. The emphasis again was on flexibility in order to respond to the needs of the research, as these developed. This allowed the important

patterns to emerge and it made it possible for the researcher to seek further clarification and understanding of the major issues identified, without making assumptions and presuppositions about the key themes in advance.

Thereafter, information on each of the themes was summarised according to a mix of criteria, summarised below:

A. Importance value: These are issues that were considered most important, in other words:
    a. Issues most emphasized as crucial by respondents
    b. Issues identified by the largest number of respondents
    c. Issues discussed longest (in terms of text length or interview time)
    d. Issues mentioned most times in the course of an interview

B. Explanatory value: These are issues that revealed crucial information because:
    a. They responded directly to questions posed in the research
    b. They offered a new and relevant perspective on the issue discussed

During the data collection and analysis process, themes and ideas emerged that lent focus to a significant part of the discussion and that were identified as crucial in understanding or explaining the phenomena studied. These emerging themes and ideas were incorporated into the research in order to gain a deeper understanding of them; examples of such themes included ‘decentralisation’ or ‘nurse-driven ART delivery’.

2.5 Design of the case study

This section explains how the case study was designed, how South Africa as a country was selected as a national case study, how the Western Cape and the Free State were selected as specific provincial case studies, and why the study focused on the provision of ART.

A Selection of South Africa as a case study

South Africa was chosen as the case study for a number of reasons. Firstly, given the high burden of the HIV/AIDS epidemic in South Africa, the extent to which funding that has been made available to fight the epidemic is actually used to implement the response, is crucial. Moreover, the issue of absorptive capacity limitations for HIV/AIDS funding in South Africa was raised recently after the rapid and significant increases in HIV/AIDS funding in the country were followed by slow spending rates (Hickey et al. 2004; Steward and Loveday 2005). These concerns increased as the implementation of the Comprehensive Plan fell below targets (WHO et al. 2008).

Secondly, South Africa is a very interesting country for this study, as it is one of the few countries in Africa that fund HIV/AIDS policies primarily from domestic funding rather than through donor aid. A comparative study (Gayle 2003) of Botswana, Lesotho, Mozambique, South Africa, Swaziland and Zimbabwe concluded that all countries studied, with the exception of South Africa, financed HIV/AIDS expenditure mainly from external sources. Thus, the study of absorptive capacity in the South African context is crucial for revealing potential bottlenecks to HIV/AIDS spending beyond foreign aid issues.. Although most relevant literature discusses the difficulties of absorbing external HIV/AIDS funding, the disbursement of domestic expenditure is also challenging and equally important.

Thirdly, South Africa's budgetary system is regarded as very good and transparent, providing extensive and timely public expenditure information in the public budget documents. In fact, a study conducted by the International Budget Partnership (IBP) of budget processes across 59 countries, concluded that only 6 of the 59 countries studied were able to provide extensive and satisfactory budget information, with South Africa being one of them (IBP 2006). Given the relevance of expenditure information for the issue of absorptive capacity, this high quality and availability of budget information is an additional factor that makes South Africa a suitable case for this research. At the same time, the particularly robust budgetary system may create a positive bias in absorptive capacity, and thus limit the applicability of this study to other countries with weaker expenditure mechanisms.

B Selection of Western Cape and Free State provinces

In South Africa, the provinces are responsible for implementing health policy and consequently they utilise the greatest part of public health and HIV/AIDS expenditure (Hickey et al. 2004). Local government is excluded from the core of the analysis because its responsibility on the financing and implementation of ART is minimal in comparison with the provincial or national level, as will be explained in Chapter 4. Furthermore, one representative of local government was interviewed early in the fieldwork, and confirmed that the involvement of local government in HIV/AIDS treatment activities was minimal. Thus, the study embarked upon an in-depth analysis of two provinces in order to gather further understanding of the issues under investigation. The provinces of Western Cape and Free State were identified through the literature review as potential candidates for the study for the following reasons. The Western Cape was selected for being a pioneer in implementing ART projects in the country, with the start of pilot projects in Khayelitsha[2] even before the launch of the Comprehensive Plan. This has facilitated its fast advances in attaining the goals of the Comprehensive Plan. In addition, it is also a leading province in terms of good spending records of HIV/AIDS budgets. The province of the Free State is an average one in terms of its health infrastructure and medical resources, and thus more representative of the national situation. Furthermore, the implementation of the Comprehensive Plan in this province has been widely researched and documented, thus providing more information than other provinces. Appendix 3 compares the basic socio-economic and health indicators for both provinces and for South Africa as a whole. Moreover, during the first round of interviews conducted at the national level, the opinions of participants regarding this selection were explored. Their feedback corroborated the usefulness of the joint selection of these two provinces.

Interviewees also advised against the study of provinces like the Eastern Cape, Mpumalanga and Limpopo. Although these provinces probably do have more acute problems and limitations in absorptive capacity, there are strong concerns around the availability and accessibility of information required for the study. Reasons for this

[2] Informal settlement just outside the city of Cape Town (Western Cape).

include: (a) these provinces only started to implement the Comprehensive Plan very late and thus it may be too early to identify results; and (b) these provinces have undergone recent changes in their leadership around the Comprehensive Plan, which may hinder the acquisition of information on the processes followed and the experience gained.

The province of KwaZulu-Natal was not selected despite the fact that it is the province with the highest burden of the HIV/AIDS epidemic. Several interviewees agreed that this province has very case-specific characteristics and particular political dynamics that are difficult to disentangle. This intricate setting may hide the trends and points in questions in the spending of funding and implementation of the program behind other parallel matters as well as limiting the applicability of the results to other provinces.

C Focus on financing of ART

The study focused specifically on the ART component of the Comprehensive Plan, also referred to as treatment with antiretroviral medicines (ARVs), and the related services delivered through the public health system. The most effective way of treating AIDS is through ART. It is a complex intervention, based on Highly-Active Antiretroviral Therapy (HAART) and consisting of a triple combination of ARVs. When properly managed, ARV treatment brings the HIV infection to levels so low that the virus is practically undetectable. As a result, treatment reduces morbidity and mortality and improves the health status of people living with AIDS. The importance of ART is that it has transformed the HIV/AIDS disease from an invariably deadly one to a chronic one. Despite the complexity of HAART, though, the feasibility of providing ART in low-resource settings has been demonstrated in numerous pilot projects (Coetzee et al. 2004; Farmer et al. 2001).

Because South Africa's HIV/AIDS policy understands prevention, treatment and care as a continuum in that these services are interrelated (DoH 2003a), it is difficult to isolate the ART component from the rest of the services included in the Comprehensive Plan. Yet, from a financial point of view, the ART is the most important component of the Comprehensive Plan, as it has the largest expenditure of

the budget. The ART component was projected to cost more than one third of the total cost of the Comprehensive Plan in 2006/07 (DoH 2003a). In fact, the expenditure analysis in Chapter 5 does not focus specifically on funding for ART but on HIV/AIDS expenditure in PDoHs in general due to data limitations, though it does differentiate between conditional grants, which are more directly linked to the ART program, and equitable shares.

The study focuses on the provision of ART services through the public health sector, but does not exclude joint public and private initiatives for the delivery of ART. The study follows the categorisation of public sector facility used in Steward and Loveday (2005), which includes as public sector ART programs those assisted by other organisations such as NGOs and academic institutions, but which utilise existing public sector resources to cover patients without medical aid. Steward and Loveday (2005) argue that, "while neat and clear cut categories of private-not-for-profit and the public sector are useful in conceptualising role-players, in practice such neat delineations are not always feasible" (p.8). The stakeholders included in the research are those groups, within or outside government, responsible for financing and implementing the public ART program.

2.6 Ethical considerations

Ethical approval for the research was obtained from the University Ethics Committee on 11th November 2005, REC. REF. 421/2005. Permission for the research was sought from the NDoH and PDoHs. At the national level, no overall permission was granted, the reason given that the research dealt with very sensitive topics (HIV/AIDS and financing). However, permission was not denied either. Consequently, permission was sought by participants on a one-to-one basis at the national level, which made the research process more difficult. Nevertheless, it also highlighted the need and value of this investigation in the given context. In the two provinces, in contrast, this overall permission was obtained without any resistance. The other two HIV/AIDS-related academic dissertations referred to in this research (Fourie 2004; Naimak 2006) do not acknowledge similar institutional resistance. Fourie's thesis (2004) is based exclusively on a literature review, and the Western

Cape based research of Naimak (2006) notes that the unproblematic access to interviewees and information might be because the research focused specifically on the success of a grant.

Ethical considerations were also covered in the Participation Consent Form and confidentiality agreements. Before each interview, the participant was asked to read and sign a Participation Consent Form (see Appendix 4), which was done in all cases. In addition, the researcher reminded participants of the confidentiality agreement and asked permission to record the interview. At the beginning of the interview, the researcher explained the purpose of the study, and allowed the participants to ask questions. All participants agreed for the interview to be tape-recorded. Recordings were transcribed partly by the researcher, and partly by two official transcription companies. The contracts that the researcher signed with the transcribers included a confidentiality clause.

2.7 Conclusion

The methodological tools used by the research followed several approaches, so that the research methods were adapted to the purpose and context of the investigation. It employed a combination of quantitative and qualitative research and a combination of review of existing information and collection of new data. In-depth qualitative face-to-face interviewing was the mainstay of the fieldwork. Intensive interviews were conducted with previously developed qualitative and detailed interview guides, consisting of both open-ended and multiple choice questions. The interviewer had the flexibility to use and adapt these interview guides so that they best fitted the collection of data. This method proved useful in providing depth and detail of responses, as well as providing a systematic and rigorous collection of data. Moreover, the direct contact of the interviewer and interviewee in the participant's context enabled the researcher to gain a better understanding of the setting and the issues faced. In addition, the use of the computer software NVivo 7 facilitated the synthesis of the qualitative information collected as part of the fieldwork according to the themes previously defined, and provided tools supporting the analysis of results and presentation of findings, thus enhancing the data analysis process.

CHAPTER 3 CONCEPTUAL FRAMEWORK

3.1 Introduction

The term absorptive capacity is described in different ways in the literature depending on the particular context. Specifically in the case of HIV/AIDS funding, and despite numerous recent debates, there is not sufficient understanding of the constitutive elements of absorptive capacity, nor of the ways in which it can be measured. It is precisely this deficiency, which is a major justification for this study.

The first six sections of this chapter review existing concepts and indicators to assess absorptive capacity in several disciplines, and to reflect on how these concepts and indicators may be extrapolated to this study. Based on this review, the last two sections develop the conceptual framework that will be applied in this study of absorptive capacity for HIV/AIDS financing in South Africa's public health sector.

3.2 Emergence of absorptive capacity of HIV/AIDS and health financing issues in the literature

The issue of absorptive capacity in relation to HIV/AIDS financing has been raised mainly in relation to the recent increases in international funding to fight the epidemic (Lewis 2005b; UNAIDS RST-ESA 2006). It arises from the fact that for many Sub-Saharan countries, HIV/AIDS is largely financed by donor aid. Hence, these studies deal mostly with funding from international organisations, and often focus on the constraints arising from the international nature of the funds, although they do also take into account some of the hurdles from the recipient side. In this context, absorptive capacity refers to:

> The ability of developing countries to efficiently spend foreign aid money. Given the limitations of health systems in some developing countries, it can be challenging to process, disperse and manage outside assistance, especially since many developing countries receive aid from numerous donors, each with their own preferences. (KFF 2005, p.1)

The UNAIDS *2004 Report on the Global AIDS Epidemic* (UNAIDS 2004) pays special attention to the challenge of spending current increases in international HIV/AIDS funding efficiently. It recognises that, despite the increasing availability of funding, countries, especially the heavily affected ones, "face serious bottlenecks to spending it effectively" (UNAIDS 2004, p.131). Thus, the message of UNAIDS becomes two-fold: "increase resources to match the need and remove the bottlenecks" (UNAIDS 2004, p.131).

Similarly, there have been recent debates on absorptive capacity in relation to health financing, and not just HIV/AIDS financing, but also referring to new flows of international donor aid. For example, the new edition of *Disease Control Priorities in Developing Countries* (Jamison et al. 2006), a leading reference book in its field, deals with the issue of absorptive capacity solely in relation to new international aid flows. Sharing the understanding of the combination of aid-led constraints and health sector supply constraints, the authors emphasise that, ironically, the productive use of funding is at risk when aid is targeted at specific areas:

> Health sector supply and demand constraints can also hinder countries' effective employment of large increases in health resources ... Additional funding alone does not create sufficient conditions for overcoming structural weaknesses, particularly in the short run. If aid is targeted to specific diseases or interventions, effective use of such aid may "consume" different amounts of a country's administrative capacity. (Jamison et al. 2006, p.232)

The recent World Bank guide on health financing (Gottret and Schieber 2006) also discusses absorptive capacity in relation to whether countries are able to spend effectively those new resources for health made available by donors. This guide goes one step further and points out that absorptive capacity is not exclusively a problem encountered with donor aid, but that it affects domestic expenditure as well. From the perspective of domestic expenditure, Gottret and Schieber (2006) highlight the importance of public expenditure management in scaled-up funding to the health sector. They define absorptive capacity as follows:

> Absorptive capacity includes the ability of the public sector to design, disburse, coordinate, control, and monitor public spending. This coordination is both vertical (between central and local governments) and horizontal (between line ministries at any given level). The question is whether governments or even institutions such as

> health ministries have the capacity to manage a large increase in real expenditures beyond a usual trend. (Gottret and Schieber 2006, p.239)

Another important approach to improving the absorptive capacity of health areas is taken by Mooney and Houston (2004). They argue in favour of improving health resource allocation formulae by incorporating indications of the 'capacity to benefit' from the recipient health areas. The authors explain 'capacity to benefit' as the extent to which health areas can take full advantage of resources allocated for health interventions. The capacity to benefit depends on the 'Management Economic Social and Human' (MESH) infrastructure, which determines the ability of health areas to make use of health resource allocations. The authors explain that this approach depends not on the size of the problem or the magnitude of resources needed to solve it, but on considerations from the recipient's side. By incorporating MESH infrastructure into resource allocation formulae, this approach takes into account the particular needs of disadvantaged areas in terms of their MESH infrastructure, as explained in Mooney and Houston (2004).

Embracing this framework, Botha (2008) builds a case for analysing absorptive capacity in relation to equity processes in primary health care (PHC) in the Eastern Cape province of South Africa. In the context of PHC policies in South Africa, absorptive capacity is understood as "a pre-condition for equitable health services and gains in health equity" (Botha 2008, p.i). She explores the complexity of the intervening variables that drive spending constraints. The study concludes that mechanisms for budgeting, managing and spending are at the core of absorptive capacity or its lack. Consequently, it recommends broadening our understanding of these processes by considering the intervening variables, which may hamper absorptive capacity in each particular context.

The next section explores the concept of absorptive capacity from a budgetary approach.

3.3 Absorptive capacity from a budgetary perspective

Absorptive capacity of health financing (and thus HIV/AIDS financing) can be seen as an issue of maximisation of the utilisation and the efficiency of public expenditure and budget management. From this budgetary perspective, Palma (2001a) refers to absorptive capacity within the health financing context as:

> The extent by [to] which the Department of Health maximises the utilisation of its available financial resources, sourced from the national government's annual budgetary allocation to all public agencies and institutions, including ODA [Overseas Development Assistance]. (Palma 2001a, p.6)

This approach emphasises the maximisation of the utilisation of funding, both in terms of processes of expanding public expenditure as well as improving the efficiency of the expenditure. Budgetary management theories explain issues in relation to the expansion and performance of public budgets. Roberts (2004), for example, highlights key problems in maximising efficiency while scaling up public expenditure, for both developed and developing countries. These problems include: (a) funds may remain unspent while implementing agencies become ready; (b) technical efficiency (ratio output/input) may fall, as inexperienced staff are employed to operate the expanded services; (c) costs of inputs and staff may rise because of supply shortages, lack of competition between contractors, and the high logistical costs of, and incentive payments for staff, working in remote areas; (d) intended beneficiaries may not be reached because of limited access.

The distinctive element of the problem of maximisation of absorptive capacity from that of maximisation of efficiency of expenditure is that the potential problem of insufficient absorptive capacity has arisen because of a process of increasing finances. In other words, limited absorptive capacity results from rapid increases in financing. Although it is possible also to discuss absorptive capacity in the context of sustained expenditure, this case would refer more specifically to theories of maximisation of efficiency of expenditure. Nevertheless, it is from this budgetary approach that the most relevant tools for measuring absorptive capacity arise, and thus they are studied below.

A Measurement of absorptive capacity by spending performance

The main approach used for measuring absorptive capacity with regard to HIV/AIDS and health funding involves calculating how much of allocated expenditure has actually been spent in the previous term (also referred in the literature as 'actual expenditure'). The understanding is that when a country, province or department has spent its entire previous budget, it has enough capacity to spend such funds, and may therefore have the capacity to spend more. Conversely, if the country, province or department has not spent all its funds at the end of the financial year, it would be logical to conclude that it does not have spare capacity to utilise even more funds. This is the rationale followed by IDASA in South Africa (Guthrie and Hickey 2004) and the starting point for the analysis of Palma (2001a and 2001b) in the Philippines.

There are several mechanisms and sources for tracking HIV/AIDS expenditure and spending. National Health Accounts (NHA) is a key instrument for analysing health budgets and is being used to track HIV/AIDS funding (Schneider and Bhatt 2004). NHA enables the tracking and study of disease-specific analysis at the national level. Disaggregating disease-specific expenditures, such as those for HIV/AIDS for instance, can offer significant information in relation to how expenditures are used, and their sources and recipients, arming policy-makers with a powerful tool for budget analysis. Tracking resource flows of public expenditures is challenging, as it requires strong reporting systems. Similar to this approach, UNAIDS uses a framework known as National AIDS Spending Assessment (NASA) (Izazola-Licea 2005), which combines several tools for resource tracking and budget analysis to monitor, and to some extent compare, expenditure on HIV/AIDS across countries (see Appendix 5). Whereas NHA is limited to health budgets, NASA methodology also tracks non-health expenditure related to HIV/AIDS.

In the case of South Africa, IDASA examines the allocations of government funding to HIV/AIDS programs. It investigates the mechanisms for intergovernmental fiscal transfers and the budgetary processes involved. A recent study by IDASA concluded that there had been a massive improvement in spending HIV/AIDS expenditure by provinces in the last couple of years, but that still greater efforts are needed to

improve the budgeting and financial management capacity (Hickey et al. 2004). Nevertheless, the main focus of that study was budgetary allocation, and not the analysis of actual spending (Hickey et al. 2004).

A more robust analysis of absorptive capacity through the budget is provided by the examination of absorptive capacity of government and donor funding in the DoH in the Philippines (Palma 2001a and 2001b). The study creates and compiles four measures with which to assess the utilisation and absorptive capacity of an agency, such as the National Health Department, with regard to its available financial resources. The four indices for measuring budget utilisation rates are: appropriation utilisation index; budget programming index; allotment utilisation index; and overall absorptive capacity index (see Box 3.1 for definitions).

Box 3.1: **Budgetary measures of absorptive capacity in the DoH in the Philippines**

Four indices were used to measure budget utilisation in the DoH in the Philippines:

Appropriation Utilisation Index (ApUI) = Obligation/Appropriation – indicates the agency's ability to utilise funds relative to the legislated/statutory spending target.

Budget Programming Index (BPI) = Allotment/Appropriation – shows the extent to which the legislated budget (appropriation) of the agency for the year has been prioritised by fiscal authorities, given the actual availability of funds from domestic and external sources. In this way, it indicates the relative importance given to the agency's programs, activities and projects in comparison to other agencies.

Allotment Utilisation Index (AUI) = Obligation/Allotment – shows the extent to which an agency effectively utilises the available resources at any given time.

Overall Absorptive Capacity Index (OACI) = AUI/BPI – measures the congruence between an agency's ability to utilise the allotments received (AUI) and the relative priority given to the agency by the fiscal managers (BPI).

Source: Palma (2001a)

The study of Palma (2001a) is instrumental in providing and testing measures of absorptive capacity through budget utilisation indices for the Philippines DoH. Nevertheless, as Palma (2001a) recognised, these measures need to be correlated with measures of accomplishments or outputs of the specific programs. Thus, favourable increases in utilisation rates may not necessarily imply better functioning of programs (Palma 2001b). This and other limitations of such a budgetary approach to absorptive capacity are discussed in the following section.

B Limitations of using budget spending for measuring absorptive capacity

Using spending data as a proxy for assessing absorptive capacity has several limitations, and can lead to misleading conclusions. To start with, even in a situation where all funds are fully spent, it may be that funds were allocated to interventions other than the intended ones (although not accounted or reported differently). In a context of weak health systems, especially at the local level, health centres may prefer to invest the funds that were originally allocated to HIV/AIDS in other pressing needs. This deviation may be difficult to track in the presence of weak financial reporting mechanisms or practices. Thus, it is important for this study to determine whether funding was indeed invested in the intended interventions, as otherwise the use of the term absorptive capacity may be meaningless. Tracking financial flows up to their final destination and disaggregating them by means of spending categories is a first step in identifying spending in the intended interventions.

Secondly, when allocated funds are not fully spent, it may be because there are bottlenecks to spending in certain areas, though there might be spare capacity in other areas. An overall assessment of an unspent budget would in this case create a misleading picture of the existing capacity. When lack of capacity in some areas coexists with spare capacity in others, a disaggregated analysis is necessary to identify those areas, for example by geographic sectors or program components. However, such disaggregated information is often difficult to find in regular, standardised budget reports.

Thirdly, it is also claimed that merely increasing one's spending is not sufficient; it is also important to spend more efficiently (Wagstaff and Claeson 2004). For example, organisations typically are under pressure to spend their allocated funds before the end of the financial year to ensure allocations in the following year. This encourages easy and fast spending, creating the risk of compromising the criteria used in financial allocations. This may lead to inefficiency in spending, which might not be recognised by looking only at overall spending patterns of the budget. Equally, some budgetary approaches such as incrementalism may in fact encourage high utilisation of funds, though not necessarily in priority areas. Hence, not only spending but also the returns or outcomes of such spending need to be included in the analysis.

Lastly, disaggregated data on actual spending of health budgets, as well as outcome data, is scarce in South Africa, and even more so in the rest of Africa. In addition, refined budget measurements of absorptive capacity as developed by Palma (2001a) require a budget reporting system that provides such detailed information on a regular basis. Previous studies in South Africa have pointed out that the shortcomings of spending data hinder financial analysis of HIV/AIDS beyond tracking expenditure (Hickey et al. 2004).

C Marginal budgeting for bottlenecks (MBB)

Another budgetary approach to tackle absorptive capacity issues is given by the MBB. This instrument has been developed by the United Nations Children's Fund (UNICEF), the World Bank and WHO for performance-based planning, to enable translating more money into better health outcomes (WHO 2003), through purposely identifying obstacles to spending. The model uses a spreadsheet-based tool consisting of three main modules – identification of bottlenecks, costing and budgeting, and assessing the impact. The model is being tested in several countries such as Ethiopia, Ghana and Mali. It can potentially improve budgeting by tackling obstacles that hinder spending.

> The MBB identifies implementation constraints of the health system that should be removed to optimise expected health outcomes and then estimates the marginal

> costs of overcoming those constraints … It facilitates a process of budgeting for government health expenditures that starts by improving allocative efficiency of the newly available resources, and provides a basis for policy dialogue and planning. (Knippenberg et al. undated, p.1)

MBB is a continuous process, which consists of five major steps (Knippenberg et al. undated):

1. Identification of bottlenecks
2. Setting performance frontiers to overcome barriers, based on country-specific opportunities and constraints
3. Estimation of costs to overcome the bottlenecks and achieve performance frontiers
4. Assessing the impact of overcoming such bottlenecks

Nevertheless, as stated by Knippenberg et al. (undated), the specific tools need to be adapted to each context and to the specific objectives of study. Thus, although the same conceptual approach may be followed by different countries, the specific methodology in terms of indices and measuring tools cannot be replicated from one country to another. Furthermore, this tool cannot be used on its own for assessing all aspects of absorptive capacity, as other considerations such as efficiency of spending need to be taken into account too, as explained above.

In conclusion, there are no commonly accepted frameworks and comprehensive tools to assess absorptive capacity in the context of HIV/AIDS and health financing. Budget spending is a first indicator of the readiness of a system to utilise more funding. However, it is also an insufficient indicator, which can lead to erroneous assessment when considered on its own. Broader considerations of how the money is actually being spent need to be taken into account.

3.4 Capacity building from an institutional perspective

Moving from the budgetary perspective to a more institutional perspective, there are numerous definitions of the term ‘capacity’ and many theories around capacity

building and related terms such as capacity development and capacity strengthening (Lusthaus et al. 1999; UNDP 1998). The meaning of the term has moved away from the more traditional approaches, which focused on the training of personnel, towards a more holistic one. Kuchenbecker (2004), for instance, speaks of capacity building in the health sector, explaining that capacity building goes beyond training, although they are often used as synonyms.

Hilderbrand and Grindle (1994) define capacity in relation to the public sector as "the ability to perform appropriate tasks effectively, efficiently, and sustainably" (p.16). This definition thus extends beyond a focus on human resources training only, and focuses on the particular tasks to be performed by the organisation, according to three basic principles: effectiveness, efficiency and sustainability. Milèn applies this definition to the field of health and defines capacity in the health sector:

> Capacity of a health professional, a team, an organisation or a health system is an ability to perform the defined functions effectively, efficiently and sustainably and so that the functions contribute to the mission, policies and strategic objectives of the team, organisation and the health system. (Milèn 2001, p.4)

With regard to the operationalisation of the term, it is argued (Milèn 2001) that capacity development consists of three phases: assessment of capacity gaps, designing strategies and implementing actions, and monitoring and evaluation. These phases are interlinked and occur in a circular way, rather than in a linear sequence (Milèn 2001). For example, in applying capacity building to health sector reform, major issues that need to be taken into account include (Milèn 2001, p.15): developing skills to manage the change process; ensuring adequate basic capacities; addressing organisational culture; coping with external constraints; and phasing reforms. Hence, the process needs to be defined and evaluated, given the particular intended objectives and the context in which it will take place.

Existing practices of capacity development within health policies are, however, widely criticised in the literature (Labonte and Laverack 2001; Magwaza et al. 2003). Some critics emphasise the need to ensure local ownership of the process and the need for continuous strengthening of abilities (Milèn 2001). Others challenge

assumptions about conventional planning and monitoring approaches and instead emphasise the application of systems thinking to broaden the understanding of complex processes (Hauck 2005). James (2005), for example, looks at the challenges for building organisational resilience to confront the implications of HIV/AIDS within organisations.

The insights of capacity building theories are particularly valuable because they focus on the process dimension of absorptive capacity, rather than on the inputs or the outputs. Capacity development deals specifically with the inherent dynamics and structures that may transform absorptive capacity. Thus, the issues highlighted by Milèn (2001) in applying capacity building to the health sector are likely to be part of the process of expanding absorptive capacity as studied in this research.

Applying these theories to the particular concept under study, capacity building may be understood as an integrative part of the process of enhancing absorptive capacity. Substantial increases in funding need to be met with capacity developments to enable the public health system to utilise such funding in an efficient, effective and sustainable way. Training of personnel would not suffice, and what is needed is to improve the way the system functions, the ability of the personnel to perform their work, and their engagements with the clients. Therefore, in order to enhance absorptive capacity in order to utilise increasing HIV/AIDS funding, it may be necessary to enquire what capacity building may be necessary to enable the public health system to perform its functions in an efficient, effective and sustainable way.

There are two possible scenarios. On the one hand, the more the country spends, the more it will be able to spend in the future, as this puts in place the right mechanisms and as it improves the country's capacity to spend. On the other hand, the more the country absorbs today, the more it will utilise the available spare capacity, and thus reach saturation point once that spare capacity has been exhausted. Therefore, the capacity to spend needs to be built as funding allocations increase, including spending funding on building such capacity. If capacity to spend is not improved as spending levels are increased, there will ultimately be a ceiling to the ability to spend. The ability of new funding to boost the capacity to spend depends a great deal on the transfer mechanisms employed, as discussed in the next section.

3.5 Absorptive capacity of technology of private firms

The absorptive capacity concept has also been studied in other fields outside the financing area, such as for example from the perspective of private firms and knowledge. There is a large literature (Easterby-Smith et al. 2005; Jansen et al. 2005; Schmidt 2005) examining the capacity of firms to assimilate new technologies and information, rather than increasing funding. In this context, absorptive capacity was first defined by Cohen and Levinthal (1989, p.569, in Schmidt 2005), pioneers in this work, as "the firm's ability to identify, assimilate and exploit knowledge from the environment". This definition suggests that absorptive capacity is not a one-dimensional concept, but that it consists rather of various skills and dimensions (Schmidt 2005). Later, the authors suggest another definition:

> Absorptive capacity is a limit to the rate or quantity of scientific or technological information that a firm can absorb. If such limits exist they provide one explanation for firms to develop internal R&D [Research and Development] capacities. (Cohen and Levinthal 1990, in Econterms 2005, p.1)

Thus, the absorptive capacity of a firm limits its ability to acquire and benefit from external information, which determines its internal R&D. Absorptive capacity works at both the individual and the organisational level. At the individual level, the accumulation of prior knowledge enhances the ability to acquire new knowledge. Absorptive capacity at the organisational level is shaped by organisational structure in conjunction with the absorptive capacity at the individual level

In relation to building that capacity, Schmidt (2005) notes that expenditures on R&D predominantly are ways of developing new knowledge and innovation, rather than of building absorptive capacity, though in the end it would nonetheless help by building a knowledge stock that could be utilised in the future. In order to build absorptive capacity, Schmidt (2005) points out, it is more relevant to create a culture that leads to informal knowledge transfer rather than to create one where information provision is more centralised.

Recently, the literature around the absorption of knowledge has made particular advances on the process dimension of absorptive capacity. In this regard, Zahra and George (2002, p.188) redefine absorptive capacity as "a set of organizational routines and processes by which firms acquire, assimilate, transform and exploit knowledge to produce a dynamic organizational capability". They distinguish between capabilities and dynamic capabilities, the latter ones specifically directed towards "effecting organisational change" (Zahra and George 2002, p.188).

Attention is thus given in the literature to the mechanisms and conditions that favour or promote absorptive capacity within firms. For example, Ratten (2004) holds that trust plays a crucial role in enhancing absorptive capacity of information, because "the more trust a firm has in its alliance partner(s), the more likely it is that information will be shared" (p.2). Easterby-Smith et al. (2008) argue in favour of paying attention to how power determines the way knowledge is absorbed by organisations. The study of Fernandez et al. (2004) reveals that the absorptive capacity of an organization is enhanced by the complexity, and thus the dimension, of the organization. Volverda et al. (2009) focus on the importance of managers in dealing with information, and hold that absorptive capacity is strongly influenced by cognitive processes on the managerial levels.

The literature devoted to the measurement of absorptive capacity of firms since the work of Cohen and Levinthal (1989, 1990) highlights the difficulties of empirically measuring absorptive capacities (Becker and Peters 2000, in Schmidt 2005). Despite several attempts to operationalise the concept of absorptive capacity, it is noted that the lack of a direct empirical tool hinders the research and comparability of results on the process of absorptive capacity development (Lane et al. 2002; Schmidt 2005).

3.6 Absorptive capacity of international aid

The issue of absorptive capacity has recently been intensively studied and discussed in relation to the absorptive capacity limitations of ODA (Bevan 2005; Clemens and Radelet 2003; De Renzio 2005; Heller 2005; ODI 2005). This approach is the closest to the rationale of absorptive capacity of expanding HIV/AIDS funding. Current

concerns around aid absorption reflect the recognition that "aid may become problematic when it is large relative to the economy it is intended to assist, even if it is well-managed" (Bevan 2005, p.2). Clements and Radelet (2003, p.131) observe that "large amount of funds and demand for quick results can create bottlenecks by placing increasing demands where resources are already scarce and take time to build up". This not only means that fast and significant increases in aid may not be spent, or spent efficiently, but even more problematically, that such resources may be spent counterproductively (Bhagwati 2005). Consequently, the Overseas Development Institute (ODI) states:

> The 'scaling up' of aid flows that could materialise in 2005 is likely to run up against 'absorptive capacity' constraints, unless these are taken into account from the beginning, and adequately addressed in the design and implementation of improved aid delivery mechanisms. (ODI 2005, p.1)

These concerns are placed in a context of a renewed emphasis on scaling up development aid. International efforts to reach the Millennium Development Goals (MDGs) have brought along renewed pledges to increase foreign assistance (UN Millennium Project 2005a; ODI 2005). In addition, Bevan (2005, p.2) argues that, "in recent years, aid flows have tended to become more concentrated on a sub-set of developing countries", hence accentuating the challenge of absorptive capacity in these countries.

However, quick and substantial increases in aid per country do not necessarily imply that the funds will be misused or wasted. It is believed, for example, that countries in a post-conflict era are more able to utilise high levels of aid effectively (Clemens and Radelet 2003; ODI 2005). For example, Mackinnon et al. (2003) suggest that in the case of a post-conflict context such as in Rwanda, there is great absorptive capacity for budget support. Clemens and Radelet (2003, p.131) highlight the double-edged sword of aid and the need for an appropriate case-specific balance: "large amounts of aid can create these bottlenecks by placing demands on scarce resources. At the same time, well-targeted aid can relieve these bottlenecks".

Reference is also made to the different forms in which aid is delivered. De Renzio (2004) points out that project aid is the most burdensome on the recipient

government's administration given the amount of resources involved, and thus budget support and sector program are preferred over project aid. This means that the absorptive capacity constraints depend largely on the mechanisms used to transfer ODA to recipient countries. This suggests that constraints may be more pressing in the case of funding that has been specifically ring-fenced for HIV/AIDS, and even more if limited to treatment programs. However, if funding were given to the DoH to spend at its own discretion and on its own identified priorities, the DoH would be able to investigate which areas have the spare capacity to utilise such funding and which ones do not, and allocate it accordingly.

In relation to allocation criteria, the *Global Monitoring Report* (World Bank 2005) indicates that the allocation of international aid is driven by two main criteria: "to better performers – those with stronger policies and institutions – and to poorer countries" (p.152). In fact, the World Bank (2005, p.168) states that "broad consensus has emerged that development assistance is particularly effective in poor countries with sound policy and institutional environments". For this same reason, Clemens and Radelet (2003, p.126), in the context of aid provided by the United States of America (USA), advocate "moving towards a results-based approach with more funds going to larger countries where appropriate". In contrast, Collier and Dollar point out that:

> Donors prefer to spread their money across as many countries as possible, even though a reallocation of aid based on need and results would lead to a much greater reduction in global poverty from current aid flows than is currently the case. (Collier and Dollar 2002 in Clemens and Radelet 2003, p.126)

Bevan (2005, p.8) highlights the consequences of existing market inefficiencies in many developing countries, leading to situations where "there may be serious bottlenecks in some sectors simultaneously with spare capacity in others. Indeed the bottlenecks may largely explain the inability to utilise the existing capacity". The importance of this recognition is that it suggests a more positive approach to the challenge of absorptive capacity, where the existence of spare capacity means that funding may be utilised once the encountered bottlenecks have been removed. The important policy implication is that aid could "act to remove capacity constraints and permit utilisation of existing spare capacity" (Bevan 2005, p.8).

The static conceptions of absorptive capacity in which the constraints are a given in the model have been criticised. De Renzio (2004) mentions cases where large increases in aid were successfully transferred to recipient countries initially facing constraints in absorbing them, such as weak institutions and insufficient skills. There were also examples where the obstacles faced were not overcome and thus monetary aid flows did not materialise. The positive experiences postulate a more dynamic concept of absorptive capacity, which would include ways to address the constraints faced. The *Global Monitoring Report* (World Bank 2005) also specifies that "even though capacity may be limited today, it can be built over time – and aid can play an important role in that as well" (p.152). The key thus seems to be that aid flows should aim to minimise the burden on the recipient country's administration, and that it should be directly targeted to overcome the initial obstacles faced in receiving and utilising such funding.

The dynamic perspective of absorptive capacity is important in considering policy options. It implies that it is not only important to search for immediate results in the short term, but rather to seek the initiation of changes in the right direction. Hence, it is important to have policy interventions, which go beyond immediate results to take into account the wider institutional capacity building process and potential positive externalities (De Renzio 2004). The United Nations Millennium Project (2005a) emphasises "the need for simultaneous investments in direct service delivery and in building capacity, here defined as public sector management and administration, infrastructure and human resources" (p.99). The attention is placed on the double action of providing services at the same time as building capacity for implementation. However, defining the simultaneous actions for each program requires an *ad hoc* policy design.

A Measurement of absorptive capacity of international aid

Attempts to measure or quantify the absorptive capacity of a country or region are a challenging task. Clemens and Radelet (2003) represent absorptive capacity of foreign aid (theoretically) as the existence of a so-called 'saturation point', defined as the point "where the incremental impact of aid is zero" (p.134), with a

consequently decreasing rate of returns. For example, the authors review studies where the relationship between ODA and a country's economic growth is positive though non-linear, that is, where every extra dollar of aid provided brings along smaller increases in gross domestic product (GDP), until a point where the impact is zero. To measure the marginal rate of return, any aid objectives can be used, such as economic growth, poverty reduction or reduction of mortality rates (Clemens and Radelet 2003).

Empirical studies suggest that the saturation point of aid ranges between 15% and 45% of the Gross Domestic Product (GDP) (Clements and Radelet 2003; ODI 2005). However, these broad estimates should not be taken as indicators to guide policy, as several factors affect this calculation[2].

In relation to the marginal rate of return, Clemens and Radelet (2003) state that "a country reaches its absorptive capacity for foreign assistance when the marginal rate of return on additional aid falls to a minimum acceptable level" (p.136). Nevertheless, the exact definition of the minimum acceptable level is not a straight-forward question. As the authors recognise, "in practice, of course, it is very difficult to measure rates of return on foreign assistance programs across countries with the precision suggested by this allocation rule" (Clemens and Radelet 2003, p.127). Collier and Dollar, conversely, suggest that the minimum acceptable level of the rate of return of aid to one country should be at least equal to or greater than the rate of return to another country (2002, in Clemens and Radelet 2003). This argument could also be applied, for example, to the rate of return of one health program in comparison to that of another health program.

The assessment of absorptive capacity of international aid relates to analyses of efficiency of aid allocations, where measures of efficient allocation of aid remain a controversial issue. Collier and Dollar (1999; 2002) argue for a 'poverty-efficiency'

[2] Clemens and Radelet (2003) make a hypothetical calculation in an attempt to calculate the exact saturation point of foreign aid. Their exercise shows that estimates of this kind are inherently imprecise and highly dependent on the way aid is delivered and the quality of the country's institutions (Clemens and Radelet 2003).

criterion, based on the argument that aid is more effective in very poor countries[3]. This argument has been challenged from a distributive justice perspective, arguing that it is also necessary to take into account "the very great inequality in poverty risk between inhabitants of countries with widely varying structural disadvantages" (Cogneau and Naudet 2004, p.2). Other studies, like those by Guillaumont et al. (1999) and Dehn and Gilbert (2000), argue that aid can be more effective in countries prone to severe external shocks.

This review shows that measurement indicators for absorptive capacity of international aid are still at a very early stage and difficult to apply, although they are closely related to ample theoretical and empirical literature on foreign aid efficiency. Advancements in the measurement of aid performance are likely to bring about key inputs for the assessment of absorptive capacity of aid. In this regard, a significant initiative has been the recent *High Level Forum on Aid Effectiveness* (High Level Forum 2005). It established a set of twelve indicators and possible targets for 2010 for monitoring progress on aid delivery and management in the areas of ownership, alignment, harmonization, managing for results, and mutual accountability (see Appendix 6 for more information on the agreed indicators) (High Level Forum 2005).

B Categorisation of obstacles to absorptive capacity of international aid

Recent work by the ODI (2005) provides a typology of four major categories of obstacles to absorptive capacity in relation to international aid, noting that there may be more than four:

1. *Macroeconomic constraints.* A major concern is that significant increases in the amounts of aid would cause an appreciation of the exchange rate, which would have damaging effects on the economy, in the form of hindering exports, for example. This effect is called the 'Dutch disease'. Recently, however, the Economics Reference Group of UNAIDS and the World Bank

[3] The authors derive a poverty-efficient allocation of aid using several measures of poverty (the headcount, poverty-gap and squared poverty gap). Their analysis shows that the resulting poverty-efficient allocation could double the number of people lifted out of poverty with the current aid allocation.

noted that "so far, HIV-orientated aid flows have not been large enough to have Dutch disease impact on external balances, savings and investments" (UNAIDS and World Bank 2008, p.2).

2. *Institutional and policy constraints.* According to Clemens and Radelet (2003), increases in foreign aid may decrease ownership of the recipient country in relation to the use of funds and increase opportunities for corruption and misuse of funds. Conversely, though, such increases could also create opportunities for strengthening the capacity of the recipient country through technical assistance.

3. *Technical and managerial constraints.* Increasing amounts of aid puts pressure on public officials, on their time and skills, occupying personnel and other resources, which are likely to be overburdened already in public administration, and even more so in low-income countries. At the sector level, such as health, resources are often limited, and hence the expansion of services would require addressing the human, institutional and logistical constraints.

4. *Constraints generated by donor behaviour*. Donors are multiple and their activities often uncoordinated, each with its own monitoring requirements; the aid provided is furthermore subject to volatility and unpredictability, where "pledges do not always lead to commitments, and commitments do not always lead to disbursements" (Bevan 2005, p.19). For Clemens and Radelet (2003), donor practices are at the core of and exacerbate absorptive capacity problems.

In addition, constraints can be categorised according to the time and effort required to overcome such constraints. ODI (2005) provides a preliminary classification of obstacles according to the time required for improvements, which has been incorporated into the four categories typology of obstacles above, and is shown in Table 3.1.

Table 3.1: **Long- and short-term constraints to absorptive capacity with regard to international aid, sorted by constraint category**

Constraints category	Short-term constraints	Long-term constraints
Macroeconomic constraints	'Dutch disease' effects*	Levels of dependency on aid Debt sustainability
Institutional and policy constraints	Inadequate public expenditure management systems Perverse incentives in public officials' performance	Major deficiencies in institutions and policy processes Social factors determining demand for services
Technical and managerial constraints	Lack of adequate infrastructure equipment	Technical and managerial skills of public officials (doctors, accountants)
Constraints generated by donor behaviour	Aid volatility Uncoordinated donor interventions	Difficulties in full shift to improved practices around donor aid

* This refers to currency appreciation and increasing inflation because of increasing ODA
Source: Adapted from ODI (2005)

All four typologies of constraints have both short- and long-term obstacles. The line between short-term and long-term constraints is nevertheless a thin one. For example, 'aid volatility' is characterised as a short-term constraint, whereas 'difficulties in full shift to improved practices around donor aid' are a long-term constraint. However, reducing aid volatility could be understood as a component of improving donor practices. In addition, although 'improvements in public expenditure management systems' are categorised as a 'short-term constraint', other experiences in enhancing budget performance suggest the difficulty of such task, especially in the presence of informality, instability and lack of leadership (CABRI 2005; Roberts 2004; UNECA 2003). Not surprisingly, De Renzio (2004, p.3) states that "problems of absorptive capacity are likely to increase as services reach out to the most remote areas or to the most excluded social groups". Generally, Bevan (2005, p.7) argues that "specific constraints are more likely to be encountered where there is a generalized lack of capacity".

Equally, the classification of obstacles into the four categories provided by ODI (2005) could be a matter of discussion. For instance, 'inadequate public expenditure management systems', which are classified as an institutional constraint, could also be understood as a technical and managerial constraint when caused by insufficient financial capacity of public servants. Therefore, although hypothetical classifications are useful in providing a framework for analysis, they are relative and dependent on the particular context. Thus, such typologies should be treated with caution, and applied and refined according to the particular case of study.

Evidence on the impact of these constraints is scarce, much of it "scanty and non-conclusive" (ODI 2005, p.3). There seems to be consensus, nevertheless, in that, despite occupying much of the discussion, the macroeconomic effects are not the most stringent constraints, as policy options exist to address macroeconomic imbalances quickly (De Renzio 2004). However, cases have been reported in which concerns about macroeconomic imbalances have been used to reject substantial HIV/AIDS funding, such as happened with a Global Fund grant in Uganda (Global Fund Observer 2003; Wendo 2002).

Specific evidence is provided by examining the absorptive capacity of Global Fund grants. The study conducted by Lu et al. (2006) examines the determinants of the disbursement of funds, which is also called grant implementation, as the criterion for assessing absorptive capacity. The study finds that, for a given country, several small grants may be better absorbed than a few large grants. Moreover, it suggests that disease type (HIV/AIDS, tuberculosis, or malaria) is not significant in explaining variations in grant implementation, and that the apparent low disbursement rate of HIV/AIDS grants can be explained by other variables in the model. Moreover, the study finds that the lower the income of the recipient country, the higher the level of grant implementation. Nevertheless, the study also recognises its limitations, in that it only examined one component of absorptive capacity, namely, the extent to which grants are used, and that it does not consider, for example, program achievements and system-wide effects on national health systems.

C Policy options to address obstacles to absorptive capacity

Several suggestions are made in the literature on how to address the absorptive capacity issue. De Renzio (2004) presents several suggestions for donors in the short term, such as providing additional targeted assistance where constraints are particularly strong. The ODI study (2005) suggests potential approaches to promote favourable conditions for a more effective use of additional aid resources. Crucial areas to be addressed are:

- Finding more evidence on the specific processes of transformation of public resources into development outcomes;
- Improving donor practices in terms of harmonisation and alignment of aid;
- Taking absorptive capacity constraints into account in designing interventions, including measures to overcome short-term and long-term constraints;
- Macroeconomic management to deal with increases in aid, including the orientation of such investments to avoid loss of competitiveness;
- Renewed focus on infrastructure and other productive sectors where substantial amounts of aid can be absorbed quickly;
- Investigating innovative delivery mechanisms in the form of incentives or targeting.

A way to bypass the issue of absorptive capacity is proposed by Bhagwati (2005), namely, to dedicate international aid for the cause, but not necessarily to spend *in situ*. For example, HIV/AIDS funds could be dedicated to vaccine research in other countries, and not just necessarily spent in affected countries. Nevertheless, this perspective is less applicable to the implementation of programs, which necessarily need to occur in the particular country.

In designing appropriate strategies to tackle these constraints, sequencing of investment is crucial (Heller 2005; World Bank 2005). Prudent approaches advocate caution and moderation. Bevan (2005, p.12) identifies the general principle that "gradualist [sic] changes in aid flows may be more easily absorbed than rapid ones,

given a similar total increase in transfer over time". Moreover, the insufficiency of *ex post facto* measures is also highlighted, thus calling for forward looking diagnostic tools, such as activity-based budgeting, to make it possible to identify problems in advance (Bevan 2005).

Flexibility to re-direct funds should bottlenecks arise is key to tackling absorptive capacity constraints (Clemens and Radelet 2003). This is why forms of aid, such as budget support, where recipient governments can decide on the allocation of resources and change allocations as needs evolve, are better able to overcome problems of absorptive capacity. The opposite applies to project-specific or earmarked aid; if obstacles arise in the implementation of a project, and if funding is ring-fenced to that particular project, money would remain unspent.

What is clear from this discussion is that there is not a single strategy to handle the obstacles of absorptive capacity, but rather that "a variety of spending paths is feasible" (Bevan 2005, p.16). In the specific case of this thesis, with regard to substantial HIV/AIDS increases, it is relevant to consider how this funding could be harnessed to achieve the intended objectives together with overcoming the potential constraints to absorb it. Moreover, enhancing absorptive capacity does not need to entail the injection of new funds; it may also comprise the better utilisation of existing funds via appropriate modifications to the relevant systems. The solution needs to be case specific.

D Implications for the study of absorptive capacity of HIV/AIDS financing in South Africa

The above analysis of absorptive capacity of international aid is important to shed light on and provide guidance for analysing absorptive capacity of HIV/AIDS financing in South Africa. This group of theories provides an initial structure of analysis, which will be useful for building up the theoretical framework for this study. It furthermore suggests potential limitations of the study. For example, it highlights the difficulty of arriving at measurement indicators, which can be applied on the ground given data restrictions.

In relation to the obstacles to absorptive capacity, many similarities are likely to emerge between the cases of international donor financing and HIV/AIDS financing in South Africa. For example, institutional and policy constraints, as well as technical and managerial constraints, are likely to be relevant to the case of South Africa. Although South Africa is a middle-income country, with significantly higher institutional capacity than the rest of the Sub-Saharan region, the spectrum of capacities varies greatly geographically and socially due to the diversity and history of the country. Also relevant are the suggestions in the literature for long-term strengthening of capacities, instead of just seeking quick service delivery, and for investments in those areas with higher rates of return, although it need not bring about equitable outcomes. These points are of particular relevance for the case of inter-provincial distribution analysis in South Africa.

Other constraints, nevertheless, may not be relevant for the particular context of domestic HIV/AIDS financing in South Africa. As will be shown later, issues related to the foreign character of aid, such as macroeconomic constraints and constraints generated by donor behaviour, are less relevant for the case of South Africa, where the majority of HIV/AIDS funding is domestic, and not international.

The consideration that the satisfactory rate of return should be at least the same as for other health programs may not be relevant in the case of HIV/AIDS in South Africa. Given the urgent need to respond to the crisis, even if rates of return on HIV/AIDS are lower than for another health program, there is still a justification (moral, social, economic, and strategic) to invest in HIV/AIDS programs.

3.7 Conceptual framework: Definition of absorptive capacity

The conceptual framework is constituted by two major elements: absorptive capacity (dealt with in this section) and bottlenecks (dealt with in the following section). Whereas the main focus of this study is absorptive capacity, a study of the bottlenecks does allow us to identify and understand the obstacles to absorptive capacity.

How can absorptive capacity be defined for the particular context of HIV/AIDS treatment financing in South Africa, and which tools should be employed to assess it? The previous sections have presented different approaches to the understanding of the term and its measurement. From this review, it follows the importance of qualifying the term for the intended objectives as well as the particular setting, answering questions such as: what is it to be absorbed, how, and by whom? In addition, the tools employed for assessing absorptive capacity also depend on how the term is understood. Consequently, this section sets out the critical issues characterising absorptive capacity in relation to HIV/AIDS treatment financing in South Africa, with the intention of developing a definition of absorptive capacity to guide the research.

(I) This thesis deals with the ability of **South Africa's public health sector** to absorb new and increasing public HIV/AIDS expenditure. Nonetheless, the factors determining the ability of the country to absorb HIV/AIDS funds can be found both within and outside the health system. Whereas this is often the case for other health programs too, factors outside the health system are especially important for HIV/AIDS due to the extent of the crisis and the stigma attached to the disease.

(II) Although the term absorptive capacity refers to the ability of the country as a whole, it is important to recognise that multiple and **different absorptive capacities** may actually coexist within one country at a time. For example, if the understanding is that a country has a medium capacity, it does not mean that all sectors in that country have medium capacity; it may be that some sectors have high capacity, whereas others have low capacity. In addition, it is likely that, if some sectors are not functioning properly, the capacity of the other sectors may not be able to compensate, thereby affecting the whole system. For example, if a country lacks sufficient medicines, no matter how much trained medical personnel it has, it will not be able to deliver treatment.

Distinguishing between different absorptive capacities is particularly relevant for the case of South Africa, as the country is characterised by extreme levels of inequality in all aspects of life: income, health, education, access to

services, and so on. In addition, geographical patterns of inequality are clearly distinguishable in the country; there is inequality *between* provinces, with Gauteng and the Western Cape generally being better off; and there is inequality *within* provinces, and both are closely interlinked.

(III) In the case of HIV/AIDS financing in South Africa, the issue of absorptive capacity arises as an effect of the **substantial increases in funding** that have taken place over the last few years. South Africa introduced dedicated funding for HIV/AIDS in the budget year 2000/01, through the launch of three conditional grants to fund specific HIV/AIDS programs. In addition, provincial departments also allocate funding for HIV/AIDS from their own budgets. Since 2000/01, funding has increased at very high rates for both mechanisms, reaching year-on-year growth rates of over 100% in real terms in several years, as will be discussed in Chapter 5. The investigation of absorptive capacity could also be meaningful in a context of steady expenditure, and not jut increasing expenditure, although this is not the case in this particular study of South Africa.

(IV) **What does it mean to absorb funding?** Merely receiving money does not mean that it has been absorbed; funding needs to be spent and utilised. Strictly speaking, it is not until the money has been used, that it has been absorbed. The concept of 'used' is not a straightforward one, though; there are different accounting methods with regard to utilisation, depending on when the budget has been allocated, whether an expense has been committed, disbursed, or paid. According to the South African public finance system, it is only when the money is actually paid that it is considered spent. If it is committed, but not paid yet (due to projects not being completed, for example), for instance, then it is still considered unspent.

Furthermore, it is possible that HIV/AIDS funding allocated to the health sector has been used in other non-HIV/AIDS health areas, although not registered as such in the budgetary reporting system. This is especially the case in low-resource settings with competing health needs and priorities. However, in order to assess absorptive capacity, HIV/AIDS expenditure must

have been used for the intended HIV/AIDS objectives. Ensuring that allocated expenditure is indeed spent on HIV/AIDS is dependent on the type of mechanism used for transferring the funds, whether ring-fenced for HIV/AIDS or not. Hence, the study of both of mechanisms is very relevant for the analysis of absorptive capacity in South Africa.

(V) Since the launch of the Comprehensive Plan (DoH 2003a), greater emphasis has been placed on rolling out HIV/AIDS treatment through ART. The Comprehensive Plan aims to treat all South Africans who need treatment within the public health service, on conjunction with strengthening the health system. The substantial increases in funding are closely linked to the process of **'scaling up' ART** to more people. The process of scaling-up refers to the substantial expansion from existing local pilot programs to national programs. It involves reaching more people, but also expanding horizontally to new areas and population groups, with these often being more difficult to access. The high prevalence of the epidemic combined with the large population of the country has resulted in a large number of people requiring treatment. Such a scale-up of ART has crucial implications for the health system as a whole.

(VI) This thesis focuses on the **delivery of ART through the public health sector**. This means that programs are to be funded, planned, administered, and implemented through the public health system. Consequently, it refers to a horizontal approach of delivering and integrating the new program within the existing health care structure and regulations. Integration within the system goes beyond service delivery to include integration of other areas such as planning, financing, and evaluation mechanisms. South Africa follows a different process than many other African countries where ART projects were often established with donor support and managed through international NGOs, outside the Ministry of Health. It is also different from private sector delivery, whether regulated or not through the public sector. As explained in Chapter 2, in South Africa, projects run as a joint collaboration between the government and NGOs or other organisations are generally included as public programs.

The approach of delivering ART through the public health platform concurs with the WHO's recommended strategy to deliver ART (WHO 2002). The focus is on a horizontal rather than a vertical approach. The public health debate between vertical and horizontal approaches is extensive. On the one hand, vertical approaches are believed to be more effective and quick in achieving results (e.g. expanding coverage) by circumventing the problems of weak health systems. However, their effect on the health system as a whole is less significant and can even be negative. Horizontal approaches, on the other hand, may have a greater impact on health outcomes broadly and in the longer term. The review of horizontal vs. vertical approaches undertaken by Oliviera-Cruz et al. (2003) concludes that both approaches are needed, and that they must be guided by the specific characteristics of the health system at the time.

(VII) Increases in HIV/AIDS funding and the start of a new HIV/AIDS treatment program are expected **to benefit the health system**[4] **as a whole**. The Comprehensive Plan highlights the importance of supporting system-wide components parallel to delivering HIV/AIDS services. Providing ART services is expected to release the burden placed on health facilities by ill people. In addition, new funding is expected to support the overall health system.

Some examples of ways in which the scale-up of ART can support health systems include (WHO and UNAIDS 2004): installation of systems for essential drug procurement and management; strengthening financial systems; confronting human resources challenges through treatment, incentives and challenges; support of local networks for PHC; and involving communities and social networks.

[4] Health system is defined as "the people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people's legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health" (WHO 2000a, p.43).

A major concern is that prioritising ART programs may come at the expense of other health programs. There are some negative externalities involved in the process of scaling up substantial financing for a particular program. For example, budget for other health interventions may be crowded out by increases in the ART budgets, and incentives to recruit and motivate personnel for ART services may draw resources from other health areas that are also important.

(VIII) Another element of the absorption of funding is that it needs to respect the core principles of **efficiency, equity and sustainability** of the country's health policy. The concepts of strengthening health systems, efficiency, equity, and sustainability are closely interrelated**.** For example, in order to ensure that policies are sustainable in the long term, it is necessary for them to be efficient and equitable, and not to weaken the overall health system. Aggressive ways of absorbing rapid increases in funds may compromise these principles, thus contravening the country's public health strategy. Such an approach is congruent with the above definitions of capacity by Hilderbrand and Grindle (1994) and Milèn (2001).

These three principles can be understood and measured in multiple ways, and using many different theories and approaches. The aim of this study is not to explore these concepts in more depth but rather in relation to absorptive capacity. In terms of efficiency, two types are commonly distinguished[5]: allocative and technical efficiency (EOHSP 2007; McIntyre 2007). The concept of efficiency should be distinguished from those of effectiveness and efficacy. These are some definitions:

> *Efficiency*: the capacity to produce the maximum output for a given input. (WHO 2000a, p.27)
>
> *Allocative efficiency*: the allocation of resources preferentially to health services providing care for those aspects of ill-health for which effective interventions exist and which are most common in the community being served, with priority given, among those preferential services, to the most

[5] In addition, Schneider and Bhatt (2004) also consider a third type of efficiency, economic efficiency, which deals with resource management issues, looking at financial input combinations to reach current health outcomes or outputs at current health spending levels.

> cost-effective interventions, i.e. interventions offering the lowest cost per unit of health outcome. (McIntyre 2007, p.viii)
>
> *Technical efficiency*: a measure of the maximum number of health services that can be provided within a specific budget or a measure of the lowest cost needed for each health service to function without compromising quality of care. (McIntyre 2007, p.xii)
>
> *Effectiveness*: a measure of the extent to which a specific intervention, procedure, regimen, or service, when deployed in the field in routine circumstances, does what it is intended to do for a specified population. (WHO 2000a, p.26)
>
> *Efficacy*: Whether or not an intervention can work under ideal conditions relates to efficacy. (Spraycar 1995 in Pittler and White 1999, p.1)

Efficiency is a wider concept than effectiveness, and thus more relevant for this study. Both aspects of efficiency, allocative and technical, are important for this study. Both are affected by substantial increases in funding for scaling up HIV/AIDS treatment programs. This current research is not concerned with efficacy, as it refers to the effects of a program or policy under optimal conditions in a clinical trial, and not in a real-world situation as in the case of efficiency (Flay et al. 2005).

Equity is a much-debated topic (McIntyre 2007). The International Society for Equity in Health provides a working definition for equity in health:

> Equity in health is the absence of potentially remediable, systematic differences in one or more aspects of health across socially, economically, demographically, or geographically defined groups or subgroups. (ISEqH 2001)

Two major types of equity can be distinguished: horizontal equity, focusing on the equal treatment of equals; and vertical equity, the unequal, but equitable, treatment of unequals (Mooney and Jan 1997). Thus, vertical equity acknowledges differences in individuals, and consequently recommends that individuals should pay or receive more according to their level of resources and need respectively. Published literature largely focuses on horizontal equity (Macinko and Starfield 2002). In relation to these concepts, it is important to distinguish between the principles of equity and equality:

> *Equity*: principle of being fair to all, with reference to a defined and recognized set of values. (WHO 2000a, p.30)
>
> *Equality*: Principle by which all persons or things under consideration are treated in the same way. (WHO 2000a, p.28)

Whereas there is a wide body of literature reviewing equity in the provision of HIV/AIDS services and particularly with regard to access to ART (Equinet 2007; Ntuli et al. 2003; MSF 2002; Wilson and Blower 2005), less attention has been paid to equity in the allocation of HIV/AIDS funding. When equity in financing is examined, it normally considers the financing contributions made by different agents (McIntyre et al. 2005; Schneider and Bhatt 2004). Particularly in the case of South Africa, there is a significant body of literature looking at the role of government health expenditure in redressing historical inequalities (McIntyre et al. 1998; McIntyre et al. 2000; McIntyre and Doherty 2004).

Efficiency and equity are often seen to be in conflict, as it is more expensive (a loss in efficiency) to provide services to the poorest populations or to those with more difficult access (a gain in equity). There is a wide-ranging debate around making choices between the two of them (Kernick 2002; WHO 2000b). Strategies for maximising overall social benefit often imply a discrimination against those who are most difficult to reach, and thus the question is how much social benefit a society is willing to trade for the sake of fairness (WHO and UNAIDS 2004).

Sustainability in the health policy context can be characterised as:

> The capacity of a health system to continue its activities in the future and to expand such activities to keep up with population growth and with the additional demands created by diseases such as HIV/AIDS. (Schneider and Bhatt 2004, p.5)

In the health context, sustainability often refers to financial sustainability, namely, security over future financial flows. In relation to HIV/AIDS

financing, sustainability issues most often refer to the availability of donor funding in the future.

Given all these considerations, this study defines absorptive capacity as follows:

> ***A country's absorptive capacity for higher HIV/AIDS funding for scaling up HIV/AIDS treatment through the public health sector refers to the ability of that country's public health system, to absorb and use the funds for the intended objectives in a way that tries to maximise the positive impact and to minimise the negative impact on other health areas and in a way that respects the core principles of equity, efficiency and sustainability of the country's health policy.***

As suggested in Chapter 2, there are two dimensions of absorptive capacity, which deserve special attention: dynamism and relativism.

Absorptive capacity is dynamic

The level or degree of absorptive capacity is not fixed; rather, it evolves as the constituting elements and determinants of absorptive capacity change. This dynamic nature is more acute in relation to increased funding for ART, as this new intervention requires substantial financial and human resources, which will thus necessarily influence the levels of absorptive capacity.

In fact, it is possible to identify two phases of scaling up, firstly when there is spare capacity that can be used for the new program, and secondly when the capacity utilisation reaches the ceiling and thus new capacity needs to be built or brought in. The higher the efforts in expanding capacity, the later the ceiling would be reached. In addition, it is important to identify where exactly the spare capacity is. The term 'spare' can be understood as existing capacity that is not being used at the time, capacity that is not used efficiently, or capacity that it is used for a 'non-indispensable' objective. Of course, such characterisations as 'indispensable' are relative, as it is a matter of perception and dependent on the options available, which links to the point below.

Absorptive capacity is relative

The level of absorptive capacity changes as the key components in the definition change, such as how much needs to be absorbed, how fast, by how many recipients, and so on. Absorptive capacity is relative to the specifics of each intervention. For example, absorptive capacity issues could be minimised simply by reducing increases in funding. However, this does not necessarily imply an achievement in itself (in tackling absorptive capacity limitations); rather, it might actually be a problem, as needed funding is not being allocated.

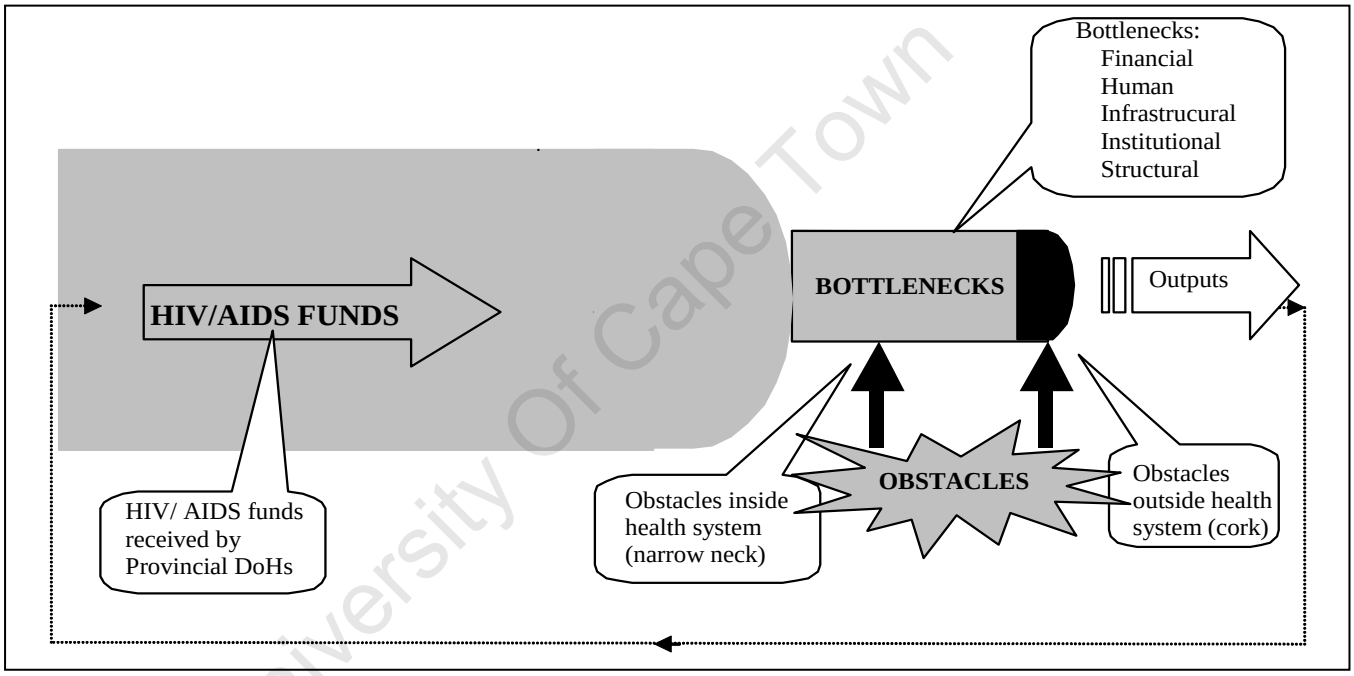
Moreover, the conceptual approach that is to be followed also depends on the intended objective. It is important to ask 'what is it that we want from absorptive capacity?' In this particular case, the aim is to increase the capacity of South Africa to absorb increasing funding for scaling up the public sector ARV treatment program. It is about unleashing capacity, which comprises both liberating existing capacity and building new capacity. With this aim in mind, the framework moves on to identifying the bottlenecks that may impede the utilisation of funding in order to unleash such capacity.

3.8 Conceptual framework: Identification of bottlenecks

The analysis of absorptive capacity of HIV/AIDS financing requires a consistent conceptual framework that can be applied to a specific context, in this case South Africa. The approach taken by this research focuses on examining the bottlenecks where available funds are not spent, and the obstacles impeding their utilisation. Unspent funds may accumulate at certain points in the health system for several reasons, such as a lack of personnel or insufficient budget management capacity, for example. These constraints lead to the formation of bottlenecks where funds cannot be spent in a way that is acceptable to the overall health system, efficient, equitable and sustainable. The objective is to remove these obstacles in order to unblock the bottlenecks, so that funding can flow to the desired areas, thus ultimately further expanding capacity.

This study defines 'bottlenecks' as areas of congestion in the flow of funds. Figure 3.1 below shows the rationale behind this view of bottlenecks, represented quite literally in the shape of a bottle. It follows the flow of HIV/AIDS funds received by PDoHs from the NDoH and Treasury. In utilising these funds for the implementation of programs, provinces encounter several obstacles. Some of these obstacles occur inside the health system (represented by the narrow neck of the bottle in Figure 3.1), whereas others lie outside the health system (represented by the cork in Figure 3.1).

***Figure 3.1*: Bottlenecks in the flow of HIV/AIDS funding**



However, the arrows also flow in the opposite direction (indicated by the dotted line in the diagram), such as when the implemented policies serve to strengthen the health system and thus to boost its absorptive capacity, permitting and/or bringing about further HIV/AIDS funding increases.

Absorptive capacity could be improved in other ways, rather than by unblocking the specific constrictions. For example, a country could strengthen the capacity of the health system in areas, which, although important, do not constitute major bottlenecks for the expansion of the program. This would not solve the actual problem. This is why identifying and targeting specific obstacles is so important.

The analysis of bottlenecks involves the identification of the areas where they are being experienced, the obstacles causing them, and the ways in which such constraints may be overcome. Hence, two main steps are identified for the analysis, explored in the following sections. Firstly, the analysis looks at the areas in which the bottlenecks may be created, and the intensity of the constraints experienced. Secondly, the analysis considers the issues involved in removing the obstacles through the injection of new funds or by appropriate modifications to the relevant systems that would allow better utilising available funds.

A Categorisation and intensity of bottlenecks

Hanson et al. (2003) provide a framework for identifying the constraints in expanding access to priority health interventions. They define 'constraints' as a range of factors that may limit the rapid expansion of priority health interventions, noting that these may include not only inputs, but also systems, processes, incentives and values or norms (Hanson et al. 2003). In addressing these constraints, Hanson et al. (2003) note the need for (a) characterizing the existing constraints; and (b) classifying the countries following the range and intensity of the constraints faced. They identify four levels of constraints: (a) community and household level; (b) health services delivery level; (c) health sector policy and strategic management level; (d) public policies cutting across sectors; and (e) environmental and contextual characteristics. For each level, several constraints are identified and classified according to their low, medium or high amenability to be improved with additional funding. Other literature that also helps in conceptualising the obstacles for the expansion of HIV/AIDS programmes include Hanson et al. (2001), Travis et al. (2004), Vergin (2000), and Wagstaff and Claeson (2004).

Hanson et al. (2003) and the above mentioned literature, however, deal with the scaling-up of health interventions, and not specifically with how such scaling-up is to be financed. With regard to financing, several sources identify and categorise the constraints of HIV/AIDS financing in particular, including Greener (2004), Lewis (2005b), MSH (2005), ODI (2005), Teixeira (2004), and Thomas et al. (2005).

Other literature examines the obstacles faced in financing and implementing HIV/AIDS and ART programs, in particular in the South African and African context; this serves to identify the most relevant obstacles for the case of ART in South Africa. The relevant literature includes Attawell and Mundy (2003), CHGA (2004), Grubb et al. (2003), Hickey et al. (2004), Ijumba et al. (2004), ITPC (2005), Kaiser Family Foundation (2004), Kolyada (2004), Schneider et al.(2004), Stevens et al. (2003), Steward et al. (2004), Steward and Loveday (2005), UNAIDS RST-ESA (2006), UN Millennium Project (2005b), WHO (2004), and WHO & UNAIDS (2003).

Thus, the review of the above literature makes it possible to construct the framework of bottlenecks in scaling up HIV/AIDS financing for the Comprehensive Plan in South Africa. Table 3.2 below illustrates the categorisation of bottlenecks and the potential obstacles that may cause the bottlenecks in each area. Although this table is part of the framework, some elements of this table were included after the first interviews were held: the categorisation of financial bottlenecks, and the obstacles of insufficient clinic space and issues of access. The refinement of the framework along with the data collection is a common practice in the iterative process of qualitative research (Yin 2009).

Table 3.2: **Categorisation of bottlenecks and obstacles for HIV/AIDS funding**[a]

	Bottleneck category	**Potential obstacles**
Inside health systems	FINANCIAL	Conditional grants reporting requirements highly demanding No HIV/AIDS spending specification of equitable shares Weak financial management capacity at decentralised levels Mismatch between DoH requests and Treasury allocations Fiscal policies may restrict health spending
	HUMAN	Shortage of medical personnel: doctors, nurses, laboratory technicians, pharmacists, nutritionists, counsellors Shortage of non-medical personnel: program managers and administrators, data capturers and administrative clerks Inadequate personnel management and training
	INFRASTRUCTURAL [b]	Insufficient clinic/hospital space Lack of storage space for drugs Inadequate laboratory infrastructure
	INSTITUTIONAL	Poor monitoring and evaluation (M&E) information systems Weak drug and medical equipment procurement systems Need for integration of HIV and tuberculosis services Lack of successful pilot studies Inadequate political leadership
Outside health system	STRUCTURAL	Issues of access: cultural barriers, stigma and transport Insufficient reliability, predictability and coordination of funding Lack of ownership of decision-making Slow government bureaucratic system Need for public-private partnerships Lack of community outreach and participation Need for social insurance schemes

[a] Although this table is part of the framework and not the presentation of results, some elements of this table were included after the second interviews were held: the categorisation of financial bottlenecks, and the obstacles of insufficient clinic space and issues of access.

[b] It refers only to physical infrastructure, not to support infrastructure like procurement

Source: Adapted from Attawell and Mundy (2003); CHGA (2004); Grubb et al. (2003); Hanson et al. (2001); Hanson et al. (2003); Hickey et al. (2004); Ijumba et al. (2004); Kolyada (2004); MSH (2005); Schneider et al.(2004); Stevens et al. (2003); Steward and Loveday (2005); Steward et al. (2004); Teixeira (2004); Travis et al. (2004); UN Millennium Project (2005b); Vergin (2000); Wagstaff and Claeson (2004); WHO (2004); WHO & UNAIDS (2003)

Table 3.2 classifies the potential bottlenecks and obstacles that may prevent the absorption of increases in funding for the scale up of the Comprehensive Plan..The areas where bottlenecks may arise are classified into five major categories: financial, human, infrastructural, institutional (inside the health system), and structural (outside the health system).

The purpose of such classification into five major bottlenecks as in Table 3.2 is not only to help facilitate the identification of bottlenecks, but also to help identify the appropriate levels of intervention, according to levels of responsibility. For example, financial, human and infrastructural resources are separated as distinctive areas, as they are dealt with by different departments and/or inter-departmental sections. The category of institutional factors includes those bottlenecks that depend on the health system, whereas structural factors include those external factors that lie outside the health system. The category of infrastructure refers only to physical infrastructure, not to support infrastructure, such as procurement.The obstacles examined may arise from the financial spending effort, or from the implementation process of the Comprehensive Plan. Whilst there are obstacles that directly prevent spending, such as the reporting requirements of conditional grants, other obstacles may prevent the actual implementation of the program, e.g. a shortage of doctors, which ultimately prevents the spending of allocated funds. Obstacles like the restriction of funding by fiscal policies, or the insufficient reliability, predictability and coordination of funding are identified in the case of absorptive capacity of international aid.

It is important to clarify that some obstacles lead to the formation of bottlenecks, while other obstacles do not. Obstacles are considered to constitute blockages when they hold back the spending of funds (directly or indirectly through hindering the progress of the program). For example, there may be insufficient storage space for ARVs, but this can be overcome by means of a quick and effective drug distribution system, hence not impeding the delivery of treatment. In this case, the lack of storage space would be regarded as an obstacle but not as a bottleneck for the program.

There are three major criteria for identifying bottlenecks, and all three must be met. . The first one considers cases where money is allocated but not spent. The second criterion examines whether the spending strengthens the health system and whether it could be considered efficient, equitable and sustainable. The third criterion identifies the gap between need and availability, that is, where resources are not in place although a need has been identified (with or without funds being allocated). For each area, it is necessary to ask whether the capacity is sufficient in relation to the stipulated targets.

These elements are interrelated and interdependent. Improvements in an M&E system, for instance, can ease the workload of doctors and free up their time by enhancing tracking and management of patients' progress. Political leadership can seek solutions and facilitate partnerships with communities and the private sector. Improvements in recruiting policies may facilitate the employment of financial officers, which may enhance budget management and spending of budgets. A rapid drug procurement system eases the space need to store drugs. The bureaucratic nature of the government affects the way in which financing and human resource practices, for example, are performed. These interactions also imply that, if one particular area is not functioning properly, it will affect the rest of the system.

The above categorisation of bottlenecks and grouping of obstacles based on relevant literature is, however, imprecise and subjective. Their relevance to the South African case needed to be studied. Consequently, qualitative research was employed in this research to collect the opinions of key informants. As explained elsewhere, this approach was believed to be a useful tool for exploring the issues in the particular context and polishing the proposed framework, based on the feedback from participants during the fieldwork.

B Amenability to unblock bottlenecks

The next step was to examine what it would take to unblock the reported bottlenecks, in terms of the required timeframe and resources. Firstly, some elements of HIV/AIDS services and health systems do take longer to be provided. It is valuable from a policy perspective to identify those elements that could be more

easily improved in the short term, and those that are expected to take longer. For example, whereas the issue of a reliable supply of medicines could be tackled in the short term with changes in regulations, improvements in the financial management capacity of provinces are expected to require a much more complex and long-term intervention.

Secondly, some bottlenecks may be more responsive to the injection of funds than others. For example, it may solve problems of shortage of drugs in the short term, by covering the cost of purchasing branded instead of generic drugs, or importing drugs to fill the gaps of local distribution. This, however, assumes an elastic supply, which may not be the case with market failures, such as in the case of restrictions emanating from trade regulations. In this regard, the regulations of the World Trade Organization (WTO) on Trade-Related Aspects of Intellectual Property Rights (TRIPS) are critical in determining the production and commerce of generic and branded ARVs in less developed countries. Furthermore, some bottlenecks may be removed without financial support but rather by means of improvements brought about by changes in the relevant systems and organisations. These changes may thus take place without increases in funding, or they may be pursued via targeted reforms that have been funded and promoted with the injection of financial resources. It is especially relevant in this context to investigate whether increases in funding may or may not erase existing obstacles, and if not, which appropriate modifications to the relevant systems would allow better utilisation of available funds.

Finally, following the adopted definition of absorptive capacity, it is necessary to consider the potential negative impacts of tackling the bottlenecks on the health system as a whole. Some policy options that could overcome bottlenecks in the short term may not be desirable in the long term. The potential negative effects of tackling bottlenecks and positive effects in strengthening the overall health system are directly related to the speed of spending of funds. It is believed that the greater the speed in expanding the program, the more likely it will be carried out in a vertical approach (WHO and UNAIDS 2004).

It is important to recognise that the appropriateness of speed in the expansion of funding and implementation of programs depends on the particular case. For

example, the study of the implementation of ART in the Free State highlights the crucial importance the slow start-up of the program in this province, in comparison to the Western Cape, played in allowing capacity to develop at the delivery facilities (HST 2005). This slow approach facilitated the management and control of the program even in the event of negative external shocks, such as drug shortages (HST 2005). This strategy contrasts with the situation in the Western Cape, where expansion of the program to larger number of patients could be sustained based on numerous earlier experiences in the region (HST 2005). Therefore, there is a need to weigh the trade-offs between spending quickly and tightly monitoring the results, finding the balance between the quick delivery of services with the overall strengthening of health systems.

Consequently, these issues call for a contextualisation of the process of absorbing the funding available for implementing the ART component of the Comprehensive Plan in order to identify meaningful policies to remove the obstacles encountered. This is why a qualitative research approach is employed in the analysis.

3.9 Conclusion

This chapter provided a conceptualisation of the term absorptive capacity. Based on a review of the literature on absorptive capacity in several disciplines, and other related theories, it follows that there is no clear and definitive framework to apply to the study of absorptive capacity in the context of HIV/AIDS financing. The study of absorptive capacity of international aid, for example, overlaps with that of HIV/AIDS financing in many areas; however, it cannot be applied to South Africa, because HIV/AIDS policies in this country are funded mainly from domestic sources, and international funding plays only a secondary role. Regarding approaches to the measurement of absorptive capacity, this chapter reviewed and critiqued the use of budgetary underspending as the sole measure of absorptive capacity.

Consequently, the chapter developed a conceptual framework for the study of absorptive capacity in the specific context of this investigation. The conceptual

framework is two-fold. Firstly, it defines the term 'absorptive capacity' in the specific context of increasing HIV/AIDS financing to scale up ART programs in South Africa. The conceptual framework spells out the core terms characterising absorptive capacity in the particular context of the investigation. Absorptive capacity is defined in a broad sense, which goes beyond the quantitative spending of funding to look into the quality and results of spending. This definition emphasises a mode of absorption that strengthens rather than weakens the overall health system, and that is coherent with the principles of efficiency, equity and sustainability of the public health system.

Finally, this thesis studies the bottlenecks to spending encountered in order to tackle the problems of absorptive capacity. The rationale is that unblocking the bottlenecks would release and enhance the system's ability to spend funds in the desired manner. Thus, this chapter built an analytical framework to identify the obstacles encountered and the bottlenecks experienced in this particular case. Based on a theoretical and empirical literature review, it categorised the potential bottlenecks into five major areas: financial, human, infrastructural, institutional and structural. It is expected that the systematic study of these bottlenecks and obstacles will provide key information to understanding the specific relative factors and dynamics, which allow for the effective transformation of public health resources into health outcomes.

CHAPTER 4 HIV/AIDS TREATMENT AND FINANCING POLICIES IN SOUTH AFRICA

4.1 Introduction

South Africa is the country with the largest population living with HIV in the world (UNAIDS 2006b). The epidemic continues to grow (DoH 2006a; UNAIDS 2006a), although there are indications that the rate of increase is declining (Dorrington et al. 2006). Nonetheless, it poses serious challenges to social, political and economic structures (Barnett and Whiteside 2002).

The government's response to the epidemic is generally characterised as late (Fourie 2004; Nattrass 2007). Nevertheless, in recent years there has been an extraordinary increase in HIV/AIDS funding, which marks a turning point in the history of government's response to the epidemic. This chapter provides an overview of the extent of the epidemic and of the government's response to the epidemic, in particular in relation to the recently launched treatment component of the national HIV/AIDS policy. It thus dwells in detail on the funding framework for these policies with a view to informing the analysis of government expenditure data in Chapter 5.

4.2 The burden of HIV/AIDS in South Africa

It is estimated that more than 5.5 million people in South Africa are HIV-positive (DoH 2006a); according to UNAIDS (2006b), this means that the country has the largest number of people infected in the world[6] (UNAIDS 2004; UNAIDS 2006a; UNAIDS 2006b). The HIV/AIDS epidemic in South Africa is further defined as a generalised epidemic (DoH 2007a), meaning that it affects the general population rather than being limited to specific risks groups such as sex workers.

[6] Other sources estimate that India's HIV infected population has recently surpassed that of South Africa.

According to the DoH (2006a), South Africa had an HIV prevalence rate of 18.8% in the adult population (15-49 years) in 2005. Women in the age group of 25-29 years are the most affected group, with prevalence rates of approximately 40% (DoH 2006a). Although HIV prevalence among young pregnant women (<20 years) seems to be stabilising, for older women the prevalence continues to increase (DoH 2006a; UNAIDS 2006b). The prevalence rate among women is higher than among men.

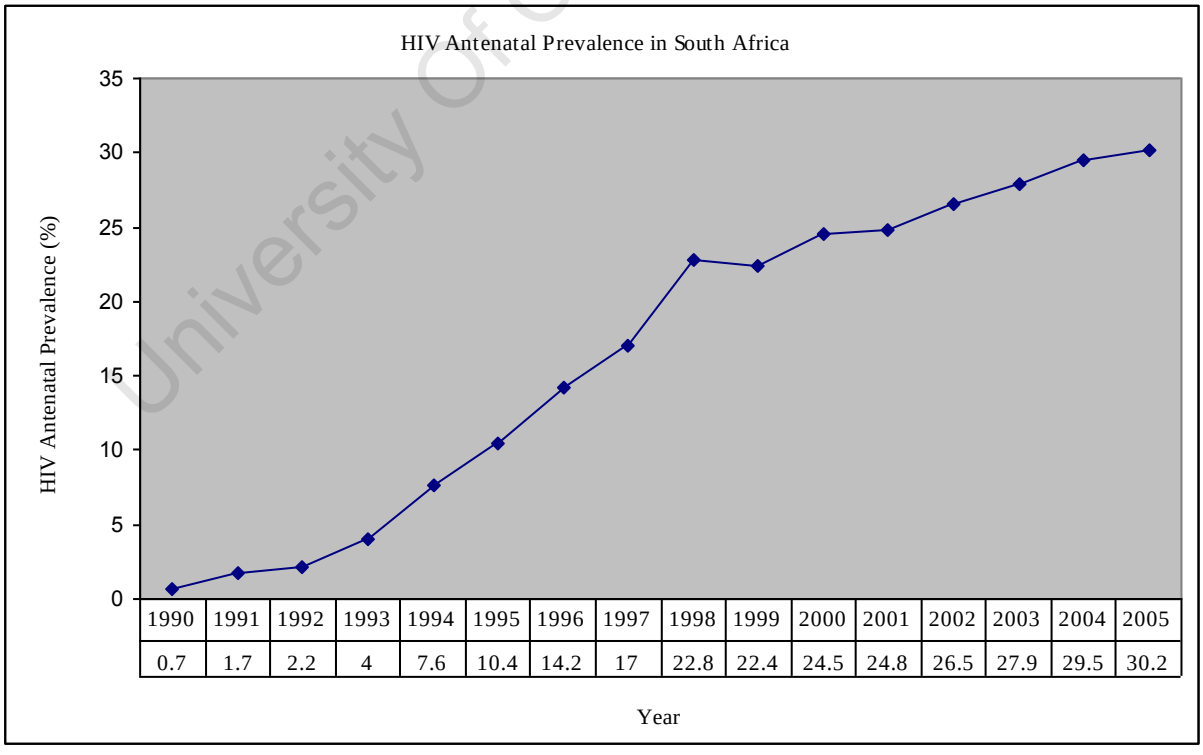
There are variations in the estimates according to the source, with the number of HIV infections generally varying between 5 and 6 million for 2005. The HIV infection rate figures of the ASSA projections (2005a)[7] are slightly lower than the projections of the DoH[8] and UNAIDS[9]. For example, for the year 2005, the ASSA2003 model (Dorrington et al. 2006) estimates that 5.2 million people are HIV infected, while the estimate of the DoH (2006a) is about 5.54 million, and the UNAIDS (2006b) estimate around 5.5 million[10]. Nevertheless, these are all approximate figures, and discrepancies among the three sources are due to differences in methodological approaches and statistical assumptions. What is important is that all sources are consistent in the approximate figure, of around 5.5 million HIV infected people in the country in 2005.

In mid-2006, according to the ASSA2003 model, the number of HIV-positive people rose from 5.2 million to about 5.4 million, with the prevalence rate being a little over 11%. Of those infected, it was estimated that around 600,000 were sick with AIDS (11% of the HIV infected) (Dorrington et al. 2006). A more in-depth description of the epidemic in the country is given in Appendix 7, which presents an evolution of the epidemiology of HIV for the period 2000-2006.

[7] The ASSA AIDS model uses data from several sources to represent the HIV/AIDS epidemic, its potential course, and its demographic impact on the population of South Africa. It has been developed by the AIDS Committee of the Actuarial Society of South Africa. The ASSA2003 model was released in November 2005, and is the most recent version of the ASSA AIDS model (ASSA 2010; Dorrington et al. 2006). The models of ASSA are based on known prevalence rates, observed mortality rates, and age profiles.
[8] The HIV/AIDS estimates of the DoH are based on surveys of women attending selected prenatal clinics across the country.
[9] The HIV/AIDS estimates of UNAIDS are based on surveys of women attending selected prenatal clinics across the country.
[10] Between 4.9 and 6.1 million.

For financial planning purposes, it is important to project what the future impact of the epidemic will be on society: with more people being infected every year, the full impact of AIDS deaths and the resultant impact on development are yet to materialise. Figure 4.1 shows the trend in HIV prevalence rates based on data from public sector antenatal clinics. These figures are important because national adult prevalence is calculated from the data received from antenatal clinics. Prevalence among pregnant women attending antenatal clinics shows higher infection rates than among the overall population, as these estimates are for a specific sexually active group. Thus, while antenatal HIV prevalence in 2006 was 28.3%, prevalence was 19.2% for the entire adult population (ages 20-64), and 11.2% for the total population (ASSA 2005a). As Figure 4.1 shows, HIV antenatal prevalence has increased throughout the entire period 1990-2005. This implies that the national HIV prevalence has also increased throughout this period.

Figure 4.1: **National HIV prevalence among antenatal clinic attendees in South Africa**



Source: DoH (2006a)

Nevertheless, the HIV epidemic seems to have reached a mature stage, in that the rate of increase is slowing down, as shown in Figure 4.1. The projections of ASSA

(Dorrington et al. 2006) show that the HIV incidence[11] peaked around 1998 and that it is now decreasing. This evidence is supported by similar evidence in other countries in Sub-Saharan Africa and in India (Shelton et al. 2006) to the effect that the numbers of new HIV infections are decreasing. However, the prevalence of HIV, in other words, the total number of HIV infections, does not seem to have reached a plateau yet (UNAIDS 2006b). These statements are not contradictory, as the former deals with incidence, and the later with prevalence.

There are two separate, though related, epidemics: one of HIV infection, and one of full-blown AIDS. The latter follows the former albeit with a few years' lag. The number of people who have fallen sick from AIDS has also been increasing, albeit with a few years' lag. ASSA (2005a) projections show that the total number of people with AIDS is set to increase from 599,298 in 2006, to 701,508 in 2010 and 797,003 in 2015. Because the AIDS epidemic lags behind the HIV epidemic, the full impact of today's HIV infections in terms of the number of AIDS cases and AIDS deaths will only manifest after a few years (DoH 2003b).

Nevertheless, the impact of the epidemic is already being felt in the country. Life expectancy in 2006 is estimated to be around 50.7 years, which is approximately 13 years less than what would be expected without HIV/AIDS (Dorrington et al. 2006). It is projected, moreover, that life expectancy will decline further without the provision of ART, to an average life expectancy of less than 48 years by 2015 (Dorrington et al. 2006). South Africa is also the country with the highest number of orphans due to AIDS (UNAIDS 2006b). It is estimated that there are a total number of 1.5 million maternal orphans under the age of 18 years in the country. Of these orphans, it is estimated that about two thirds have been orphaned because their mother or both of their parents have died from AIDS. There were about 300,000 new HIV/AIDS orphans in 2006 (Dorrington et al. 2006).

The epidemic is distributed unequally among the provinces. KwaZulu-Natal carries the hardest burden with over 1.5 million of its population infected, and the highest

[11] HIV incidence reflects the number of new infections, as opposed to HIV prevalence, which reflects the total number of HIV infections. Thus, incidence is the key indicator to assess the future trends of the epidemic. Nevertheless, incidence is more difficult to measure than prevalence, and prevalence is thus the most used indicator of the epidemic.

infection rate in the country: 40.2% of infections in antenatal clinics and 26.2% of infections in the adult population (ages 15-49) in 2006 (ASSA 2005a). On the other end of the scale is the Western Cape with the lowest infection rate: 15.5% of prevalence in antenatal clinics and 8.6% of prevalence in the adult population (ages 15-49) for the same year. The Free State is closer to the national average, with a prevalence of 33.7% in antenatal clinics and 22.2% in adults aged 15-49, for 2006. Table 4.1 shows disaggregated HIV prevalence and incidence figures for the nine provinces. For a more detailed analysis of the epidemiology of HIV/AIDS across the nine provinces, see Appendix 8.

***Table 4.1*: HIV/AIDS prevalence and incidence in South Africa per province, 2006**

	HIV adult* prevalence (%)	New HIV infections
Eastern Cape	17.4	80,968
Free State	22.2	35,073
Gauteng	22.2	111,589
KwaZulu-Natal	26.2	136,582
Limpopo	12.1	46,691
Mpumalanga	21.8	40,684
Northern Cape	11.2	6,907
North West	20.5	44,153
Western Cape	8.6	27,605

* Ages 15-49.
Source: ASSA (2005a)

The need for the ART program

The ASSA model calculates that in South Africa in 2006, around 764,000[12] [13] people were in need of ART, and that only around 32.6% of them were receiving the

[12] Although Dorrington et al. (2006) mention 711,000, the correct figure should read 764,000, as per ASSA2003 (2005b) (Leigh Johnson, personal correspondence 2 February 2007).
[13] According to Dorrington et al. (2006) there is more people in need of ART (764,000) than people sick with AIDS (600,000) for 2006. The reason is that 75% of people cease to be classified as 'AIDS sick' after starting ART (a model assumption) (ASSA 2005b and Leigh Johnson, personal correspondence 2 February 2007).

treatment (Dorrington et al. 2006). This implies that by the middle of 2006 there were nearly 540,000 people sick with AIDS who did not have access to ART[14].

The AIDS cases estimates used in the Comprehensive Plan (DoH 2003a) were based on the ASSA2000 model output for each province (ASSA 2003), and they exclude the people who are members of medical aids (and who would therefore not require publicly funded health care). Table 4.2 below shows the numbers of new (not cumulative) cases of AIDS as estimated in the Comprehensive Plan (DoH 2003a). The most severely affected provinces are KwaZulu-Natal followed by Gauteng and then the Eastern Cape. Appendix 9 shows the disaggregated numbers per province.

Table 4.2*: Estimated new AIDS cases in South Africa, 2003-2007

	2003	**2004**	**2005**	**2006**	**2007**
New AIDS cases	388,701	462,841	530,658	586,181	624,720

*These figures are not cumulative and exclude the population covered by medical aid
Source: DoH (2003a, p.240)

Table 4.2 shows the increasing needs for ART. In 2003, approximately 388,701 new AIDS cases occurred. By 2007, this figure was projected to rise to 624,720. These figures are not cumulative, however, and only reflect new AIDS cases per year. The high prevalence of HIV/AIDS and the large number of people infected, together with the growing need for ART over time, emphasise the urgency of a response, and the magnitude of the challenges ahead. In fact, it is argued that providing adequate treatment through ARVs to the population has become a moral challenge in the country, considering the high numbers who need them as well as the economic affordability and long-term benefit of ART (Nattrass 2004).

4.3 The Comprehensive Plan

This section provides the background to the evolution of HIV/AIDS policies that led to the Comprehensive Plan. It also presents the objectives of the Comprehensive

[14] This number excludes the people who having started ART discontinued treatment because of reasons like adverse side-effects or inability to adhere to treatment (Dorrington et al.2006).

Plan and its cost implications, and discusses the achievements in implementation at the national level, in the Free State and in the Western Cape.

A The evolution of HIV/AIDS policies in South Africa

The South African response to the epidemic within the health sector is built upon a series of guiding policy plans. The strategy of the South African Government is a multisectoral response where sectors beyond the health sector, such as education and social development, also confront the epidemic, led by the *HIV and AIDS and Sexually Transmitted Infections Strategic Plan for South Africa 2000-2005* (DoH 2000), which was later replaced by the new *HIV & AIDS and STI*[15] *Strategic Plan for South Africa 2007-2011* (DoH 2007b). Appendix 10 provides an overview of various policy developments shaping the HIV/AIDS strategy of the government.

In relation to the treatment policy in particular, the public sector's treatment response to the epidemic has been characterised as being late because it only materialised in November 2003. In that year, the DoH estimated that approximately 400,000 people would develop an AIDS-defining illness (DoH 2003a), and that more than 4.7 million people were HIV-positive and eventually would need ART when developing full-blown AIDS (ASSA 2005b). Consequently, the epidemic in the country was already at an advanced stage when the treatment program was launched, and this poses various challenges.

The inaction of HIV/AIDS policies took different forms before and after the first democratic elections in 1994. Furlong and Ball (2005) explain that, during apartheid (before 1990), the reaction of the government to HIV/AIDS, which affects black disproportionably, has been characterised as "denial, discomfort and racism" (p.127). The new government in 1994 advanced the fight against the epidemic and its impact in many ways; among others, budgets grew and structures were put in place to lead interventions against the disease (Furlong and Ball 2005).

[15] Sexually Transmitted Infections

Nevertheless, advances were hampered by the controversial stances of governmental leaders in respect of many HIV/AIDS issues; a particularly controversial one was Thabo Mbeki's questioning of the scientific evidence that AIDS was caused solely by HIV (BBC News 2000; Fourie 2004; Furlong and Ball 2005). Later, another major controversy was the fact that the Health Minister Manto Tshabalala-Msmang supported the intake of garlic, beetroot and oil to deal with the effects of AIDS, instead of fully promoting ARVs (BBC 2006). Due to these controversies, the South Africa's government has been perceived as lacking a clear position and decision in fighting against the epidemic with all its strength, and more particularly in the use of ART (Furlong and Ball 2005; Nattrass 2007).

A Joint Health and Treasury Task Team (JHTTT) was responsible for laying the groundwork for the treatment plan, and they delivered their report (DoH 2003b) to the Minister of Health in August 2003. This report is not a policy document, but provides the groundwork that informed the launch of the Comprehensive Plan later in the same year. It provides a first estimation of the cost of providing ART[16]. The cost of providing ARV to 100% of all new cases is estimated to be between R13.4 and R15.7 billion by 2008 (DoH 2003b). However, the report acknowledges that further detailed analysis of the routing and funding mechanisms under various scenarios will be required (DoH 2003b). This report was followed in August 2003 by the announcement to roll out ART, which was formalised in November 2003 with the launch of the Comprehensive Plan.

B The Comprehensive Plan

The Government of South Africa launched the Comprehensive Plan (DoH 2003a) in November 2003. This plan became the most important guiding policy for the public health sector's response to HIV/AIDS. The most important new element of the Comprehensive Plan, in relation to previously existing policy, is the ARV treatment component.

[16] The modelling exercise considered the costs of four different treatment scenarios: universal access to a full range of treatment interventions excluding ARVs, and the additional costs of providing 20%, 50% or 100% ART coverage. The 100% ART option implies "working up via phased implementation to provide ART for 100% of all new AIDS cases in 2008, with full access to non-ARV care for all those who need it" (DoH 2003b, p.16).

Objectives of the Comprehensive Plan

The Comprehensive Plan aims to provide all South Africans who require comprehensive care and treatment for HIV/AIDS, with equitable access to the program within their local municipal area by 2008 (DoH 2003a). It aims to establish a minimum of one service point in every health district by the end of the first year of implementation. The Comprehensive Plan stipulates the provision of the continuum of care and support through several components, including: prevention strategies; voluntary counselling and testing (VCT); medical care and treatment (including ART); psychosocial support; nutritional assistance; social support; and home- and community-based services (DoH 2003a).

A core element of the Comprehensive Plan is that treatment is to be delivered in an integrated manner that will strengthen the overall health system. In fact, the national strategy aims to achieve two interrelated goals (DoH 2003a, p.24): (a) to provide comprehensive care and treatment for people living with HIV and AIDS; and (b) to strengthen the national health system in South Africa.

The Comprehensive Plan estimates that approximately 53,000 patients would be receiving ARVs in 2003/04, and they would increase to 381,177 by 2005/06 (DoH 2003a). Table 4.3 illustrates the rapid scale-up of ART services envisaged in the Comprehensive Plan. These estimates are crucial for the planning and budgeting of the plan, as well as giving a benchmark to monitor progress.

Table 4.3: **Total patients projected to receive ART, 2003/04-2007/08**

Year	ARV patients
2003/04	53,000
2004/05	188,665
2005/06	381,177
2006/07	645,740
2007/08	1,001,534

Source: DoH (2003a, p.105)

Implementation of the Comprehensive Plan- Accreditation of service points

ART is to be delivered only through accredited service points, which can be constituted by a single hospital or clinic, or by a group of facilities. In order to ensure a quality service, the Comprehensive Plan established a set of norms and standards for the accreditation of ART service points. A full list of accreditation requirements is included in Appendix 11. Particularly relevant for this research is the core staffing requirements per site to deliver ART shown in Table 4.4.

Table 4.4: **Core staffing requirements per treatment site (to deliver ART to 500 patients)**

Category of Staff	**Minimum full time equivalent**
Medical officers	1
Professional nurses	1
Pharmacists	1
Dieticians/nutritionists	1
Social workers	0.5
Lay counsellors	5
Administrative clerks	1
Data capturers	1

Source: DoH (2003a, p.104)

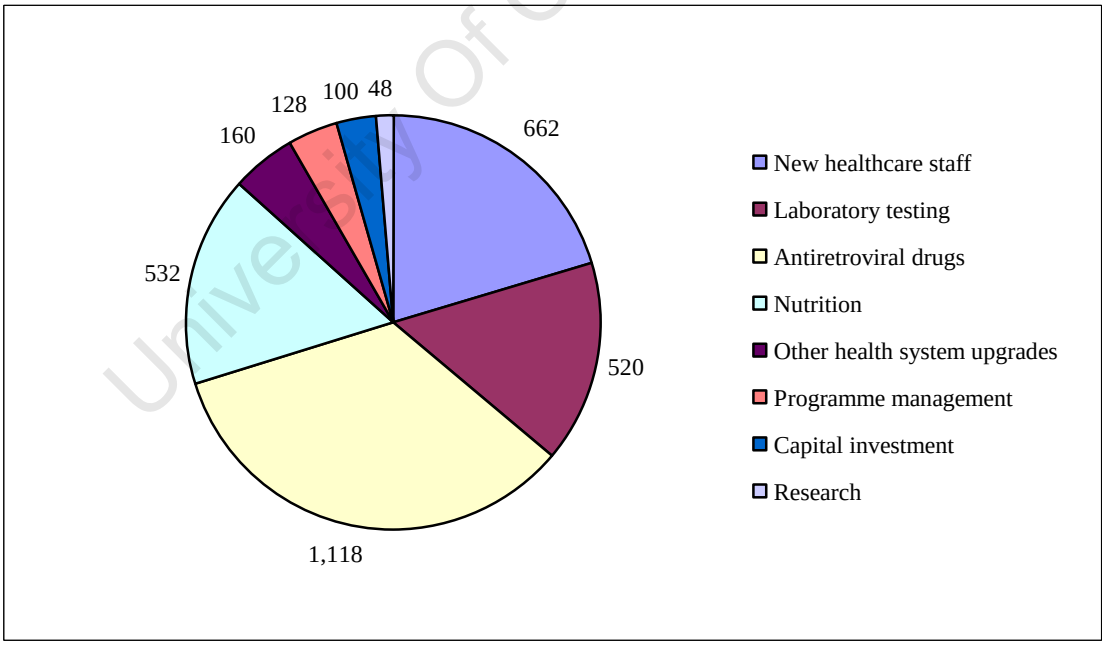
There is a difference between enrolling in the program and receiving ART. Not all patients enrolling into HIV/AIDS treatment receive ART. This may be because they are not eligible yet, or because they are undertaking the treatment readiness course, or because they are still waiting for ART. Even when a person who is tested is HIV-negative, he/she still receives counselling and advice to prevent HIV-infection for the future. HIV-positive individuals may be referred for ART, prophylaxis for opportunistic infections, or routine follow-up, depending on the advancement of the disease. Patients with a CD4 count of less than 200 and/or who are symptomatic are offered the option of ART[17] (DoH 2003a).

[17] The criteria for initiation of ART in non-pregnant adults and adolescents are: (1) CD4 ≤ 200 cells/mm^3 and/or symptomatic, irrespective of state; or (2) WHO stage IV AIDS defining illness, irrespective of CD4; and (3) patient prepared and willing to comply with taking antiretroviral drugs.

Costing

The total cost for the Comprehensive Plan is anticipated to grow from R296 million in 2003/04 to nearly R4.5 billion in 2007/08. Figure 4.2 shows a breakdown of the projected budget according to categories in year 2006/07 (see Appendix 12 for the evolution of costs). It shows that ARVs are the largest cost-driver in the budget, followed by health care staff and then laboratory testing. Thus, from a financial perspective, the core of the plan centres on ARVs, as ARVs alone consume the biggest proportion of the budget. This is because ART is drug-intense and because of the high cost of several ARVs. This is despite the fact that the Comprehensive Plan was formulated at a time when the price of ARVs had decreased significantly, making it more affordable to scale up ART.

Figure 4.2: **Disaggregated budget for the Comprehensive Plan, 2006/07 (Rands (R) thousand)**



Source: Adapted from DoH (2003a, p.48)

Thus, although ART is only one of several components in the Comprehensive Plan, it is the biggest component in the budget of the Comprehensive Plan.

The criteria for initiation of ART in children under 6 years are: (1) CD4 < 15% and symptomatic; or (2) WHO Paediatric Stage III AIDS defining illness, irrespective of CD4; and (3) at least one responsible person capable of administering child's medication (DoH 2003a, p.32).

Emphasis on strengthening the health system, efficiency, equity, and sustainability

The Comprehensive Plan, as well as previous health policy documents, emphasises the commitment to the overall goals of strengthening the health system and achieving equity, efficiency and sustainability[18]. These four core principles harness South Africa's public health policy towards redressing historical disparities, promoting more equitable and efficient health systems and strengthening PHC.

In terms of **strengthening of the health system**, the Comprehensive Plan highlights the need to allocate additional investments to improving the capabilities of the national health care system as a whole, with special emphasis on upgrading the skills base, recruiting new professionals, retaining health care professionals in historically underserved areas, investing in physical infrastructure, and laboratory and drug procurement services. It also calls for the need to integrate ART within the overall public health system.

> A fundamental principle is the strengthening of the national health system as a whole in order to ensure the effective delivery of comprehensive HIV and AIDS care and treatment. It is also essential to ensure that this plan is not implemented at the expense of other equally important healthcare priorities and programs. (DoH 2003a, p.18)

The Comprehensive Plan contemplates that as much as 36% of its budget is to be devoted to strengthening the health system over the first five years. In addition, it gives the assurance that it will not transfer resources away from other health programs, as it is based on new budgetary resources. However, these new resources to be devoted to health system strengthening refer exclusively to financial resources, not to human resources, infrastructure or other resources.

[18] These principles are also highlighted in the *White Paper for the Transformation of the Heath System in South Africa* (DoH 1997), which is the basis for the re-orientation of the South African health system, and in the more recent *Strategic Priorities for the National Health System 2004-2009* (DoH 2004c).

In addition, the Comprehensive Plan contemplates that treatment and care for HIV/AIDS be integrated within the district health system (DHS)[19]. The DHS is the national approach to health care delivery, and it is characterised by delivering PHC in an integrated way, dealing with the broader socio-economic aspects influencing health. It has a bottom-up approach by getting closer to communities and focusing on a redistributive objective (Van Rensburg and Pelser 2004). The DHS involves the decentralisation of particular health care responsibilities to provincial and local governments (Van Rensburg and Pelser 2004). This decentralisation implies that absorptive capacity needs to be examined at the provincial and local levels where responsibility for implementation lies. Integrating into the DHS system is particularly relevant as ART transforms HIV/AIDS into a chronic disease requiring life-long care. This integration is seen as a prerequisite for the plan to strengthen and not weaken the health system, as well as to ensure its sustainability.

In terms of **efficiency**, the accreditation of service points through standard requirements, as explained earlier, would ensure the quality of the continuum of care. More specifically, the Comprehensive Plan envisages enhancing efficiency through: the improvement in procurement mechanisms and laboratory infrastructure, which should lead to significantly lower prices, the revision of work definitions and scopes of practice by professional groups, the upgrade of patient information systems, the implementation of M&E systems to enhance the management of the program and to ensure effective quality assurance, the monitoring of adverse events, and the maximisation of ordering and procurement systems. In order to monitor progress in the implementation of the program, the NDoH developed an M&E framework (DoH 2004a), which is explained later in the chapter.

In relation to **equity**, the Comprehensive Plan stipulates the allocation of greater financial resources and technical assistance towards historically disadvantaged areas

[19] Since 1994, South Africa has moved towards focusing on the DHS as the best approach to health care delivery, in order to compensate for historical distortions. This approach implies boosting funding to PHC, even if this is to the detriment of budgets for tertiary hospitals (Van Rensburg and Pelser 2004). Nonetheless, the implementation of DHS has proved difficult. The shared responsibilities by local and provincial spheres have resulted in different employment conditions and remuneration packages, making the integration of management of health workers challenging (Van Rensburg and Pelser 2004). The provincial and local government spheres also employ different financial management systems and levels of accountability, thus further complicating the management of an integrated program.

(DoH 2003a). In addition, the goal of opening at least one treatment site in every health district in the first year of the program aims to contribute to intra-provincial equality.

South Africa's commitment to equity is much stronger than in other countries, due to particular historical developments and imbalances. The first democratic Government in 1994 inherited a country characterised by stark economic, social and political inequalities, which were mirrored in access to and quality of health services. Thus, improving equity in health allocations and tackling historical disadvantages became a major issue in policy planning.

With regard to **sustainability**, the Comprehensive Plan highlights the importance of securing funding for its implementation over the long term, mainly by financing the program through domestic funding, and using donor resources only as a supplementary source of financing. In addition, the national plan stipulated that the treatment program must be cost-effective and efficient in order to achieve sustainability. Other related aspects considered in the document include the long-term sustainability of training programs and the continuity of drug and other supplies, which is to be enhanced by pharmaceutical tender processes, permitting contracts to be split among suppliers.

C Progress in the implementation of the Comprehensive Plan

This section first presents the M&E framework for the Comprehensive Plan, and thereafter discusses the current achievements of the plan, nationally as well as provincially (Western Cape and Free State).

The M&E framework for the Comprehensive Plan

In 2004, the NDoH issued the *Monitoring and Evaluation Framework for the Comprehensive HIV and AIDS Care, Management and Treatment Plan for South Africa* (DoH 2004a), to guide this process. The framework includes a set of core indicators to be reported within six months of the launch of the Comprehensive Plan,

shown in Appendix 13, and a list of programmatic indicators[20] in the following areas (DoH 2004a):

- Budget expenditure;
- Human resources and training;
- Accreditation of service points;
- Nutrition related intervention;
- Drug procurement and distribution;
- Laboratory services;
- Patient information systems, monitoring and research;
- Patient outcome and impact: VCT, prevention of mother-to-child transmission (PMTCT), tuberculosis and sexually transmitted infections (STIs);
- Traditional medicine;
- Social mobilisation and communication;
- Pharmacovigilance;
- Health system strengthening.

This M&E framework is a crucial step towards improving the quality of services in a coordinated manner. However, an M&E framework is only useful as long as it helps to collect and organise information that is ready to be used by the targeted recipients. To date, the NDoH has only published one report on progress on the Comprehensive Plan (DoH 2004b), which is hampering the proper evaluation of its implementation. Thus, the DoH has been criticised for not reporting sufficiently on the progress of the rollout of the Comprehensive Plan. Consequently, parallel M&E processes have been started by civil society to monitor the progress of the program (JCSMF 2004; JCSMF 2005; Ndlovu and Daswa 2006b).

Progress to date

As noted before, this study focuses exclusively on the ART component of the Comprehensive Plan, and thus progress is only reported on this indicator and not on

[20] Indicators also include the frequency of reporting: monthly, quarterly or annually.

the rest of components of the plan. In terms of availability of ART services, there are clear improvements. By the end of September 2004, 50 of the 53 health districts in South Africa had at least one service point accredited (DoH 2004b), and by December 2005 there were 204 accredited and operational service points countrywide (DoH 2006a), meeting and exceeding the original target in terms of accreditation of service points per district.

However, because the accreditation requirements are high and difficult for smaller health facilities to meet, mainly hospitals rather than clinics were the first to be accredited as ART treatment sites. Consequently, although the long-term objective is that ART be integrated in and provided through the DHS structure, this proved difficult in the early stages of the implementation.

With regard to patients on ART, targets in the Comprehensive Plan have not been met. When the Comprehensive Plan was launched, fewer than 5,000 people in the country were on ART (ITPC 2005). By August/September 2004, nearly 10,000 people had started ART (DoH 2004c). Early in the rollout, it was clear that the target of nearly 190,000 people on ART by March 2005 was far beyond the capacity of the program, and consequently the target was adjusted downward to 53,000 patients on treatment, which had been the original goal for the previous year. The targets of the Comprehensive Plan were revised twice: first by the Health Minister and then by the President in his 2004 State of the Nation Address (ITPC 2005).

The DoH estimated that at the end of March 2005, more than 42,000 people had been put on ARVs. This is still less than the revised target of 53,000 (JSCMF 2005) (and even less than the original target of nearly 190,000). The next year, the DoH (2006b) estimated that the cumulative number of patients on ART was 178,635 in June 2006 and 213,828 by September 2006. Thus, in only three months, the number of people on ART increased by more than 35,000, at an average of 11,000 new patients per month, which represents a significant improvement (DOH 2006b)[21]. However, despite these advancements, progress has lagged behind targets.

[21] The ART provision figures of the DoH are higher than those estimated by the JCSMF, which calculated that approximately 140,000 people had started treatment in the public sector by June 2006 (JCSMF 2006).

Implementation, however, varies across provinces. Looking at ART coverage of new AIDS cases in December 2006, the Western Cape has the second highest rate (64%), exceeded only by the Northern Cape; however, the figure for the Northern Cape seems too high, which suggests that there may be errors in its data[22]. The Free State has the third lowest enrolment rate of new AIDS cases (12%), only lower than the North West (5%) and Mpumalanga (10%). Overall enrolment rates for the country are also low (21%). Appendix 14 shows full calculations and results of the coverage of the new AIDS cases calculated by the new ART enrolments, by province. These calculations are nevertheless imprecise (for the reasons detailed in Appendix 14) and thus should be taken only as an approximate indication. These calculations are nevertheless valuable because they are based on DoH reported data of ART enrolments and not on ASSA projections as was the case in other similar studies.

Other studies also show very low ART coverage rates and similar provincial ranking. Nattrass (2006) provides an estimate of ART coverage as at the end of 2005, relating to total AIDS population (cumulative) rather than new AIDS cases. Her study shows a higher national coverage (25%), probably partly due to the inclusion of ART provision through the private sector. In terms of provincial ranking, the Free State has the third lowest coverage (21%), and the Western Cape has the highest coverage (56%), followed by the Northern Cape (32%). The calculations of Nattrass (2006) are also based on the ASSA2003 model (ASSA 2005b) rather than on government reported figures of people on ART as in Appendix 14, and include both public and private provision of ART.Thus, despite some differences, the results are relatively consistent with the ones in Appendix 14 in that the Free State has one of the lowest coverage rates, and the Western Cape one of the highest.

Another estimate is provided by the ASSA model (2005b), according to which around only 32.6% of HIV-positive people in need of ART had access to treatment

[22] The figure for the Northern Cape shows about three times as many people enrolled as people sick from AIDS, but the author is unable to provide any explanation for the potential errors in the data. *Source*: Author's calculation of new ART enrolments based on data from DoH (2006a) for 2006, and SACOB (2007) for 2005. Data for estimated new AIDS cases from DoH (2003a). Coverage of new AIDS patients from author's calculations.

by mid-2006[23], with nearly 540,000 people sick with AIDS who did not have access to ART (Dorrington et al. 2006)[24].

Furthermore, the ART enrolments reported by the DoH (DoH 2006a; SACOB 2007) only indicate the number of people who have started treatment, but not how many are currently receiving treatment. To have a complete picture of the progress of the program, it is necessary to know how many patients have dropped out of the program, and how many died while on treatment. These numbers may be high, especially during the early stages of a treatment plan, as previous experiences have shown that the first people accessing ART are generally those who are more ill and have lower CD4 counts, and thus are less likely to succeed (Pienaar et al. 2006). The DoH stated that nearly 6,000 people have died while on ARVs since the rollout of the Comprehensive Plan began (SABC News 2006a).

The slow speed of the ART rollout is also evident from the existing waiting lists for enrolling in the ART program. According to the DoH, a study conducted between March and June 2006 showed that there were 31,255 people on waiting lists for receiving ART. This number refers exclusively to people who have presented themselves to the clinic, who have qualified for treatment in accordance with the clinical guidelines, and who were prepared to initiate ART through the treatment readiness courses (SABC News 2006b). The AIDS Clinicians Society however disputes this figure and argues that the figure is substantially higher (SABC News 2006c).

All these estimates coincide in that achievements in terms of the number of people on treatment not only fall short but are substantially lower than the original targets and much lower than the estimated numbers who need treatment, given that targets rose gradually over time as planned coverage increased.

However, even though late and below the targets, the advancements in achievements to date may also be considered remarkable. In fact, by 2005 South Africa was the

[23] In relation to total AIDS cases, not new AIDS cases.
[24] This number excludes the people who having started ART, discontinued treatment because of reasons like adverse side effects or inability to adhere to treatment (Dorrington et al. 2006).

country with the highest number of people on treatment in the world (between 178,000 and 235,000[25] patients on ART), followed by Brazil (between 165,000 and 183,000 patients on treatment) (WHO and UNAIDS 2006). Thus, it is a considerable achievement, especially given the short time since the launch of the treatment program. Given the magnitude of the numbers of people who require treatment, moreover, no other country is faced with such a huge challenge as South Africa.

In addition, it has also been argued that the targets set in the Comprehensive Plan have not been achieved because they are too ambitious (Van Rensburg 2006a). It is argued that speeding up the rollout of ART to achieve high targets may actually damage the quality and sustainability of the process in the long term (McCoy et al. 2005). The early phase of the program is crucial for building a critical mass of professionals with knowledge and skills related to HIV/AIDS treatment. Pressures to chase patient targets and to spend available resources thus may compromise the broader objectives of the Comprehensive Plan.

Progress in the Western Cape

The rollout of ART in the Western Cape is characterised by the rapid expansion of both service points and number of people on treatment, resulting in the province exceeding the targets for the patients receiving ART (WCDoH 2006a). A factor in this achievement is the existence of a significant number of people on ART before the Comprehensive Plan was launched; in April 2004, 2,327 patients were already on ART in 16 sites across the Western Cape (WCDoH 2006b), thanks to the collaboration of the provincial government with Médecins sans Frontières (MSF). In addition, the program has expanded continuously in the province. ART sites have increased from 16 in April 2004 to 46 in June 2006 (WCDoH 2006b). The number of patients on ART has increased from 2,327 in April 2004 to 16,234[26] by the end of March 2006 (WCDoH 2006b) and 18,941 by the end of June 2006 (WCDoH 2006c). In the Western Cape, more than 1,000 new patients enrolled on ART each month by

[25] This includes patients on treatment in both the public and the private sector.
[26] This number is 16,343 in the WCDoH (2006b).

early 2006 (WCDoH 2006b), with coverage[27] reaching 65% in mid-2006 (Abdulah 2006).

Despite this success and the province's comparative advantage in health services (compared to the national average), the program is not free from obstacles. The WCDoH highlights two major constraints in the implementation of the program: inadequate physical facilities and insufficient health personnel (2006d). In addition, the challenge of the growing number of people on ART presents challenges to the health system's capacity.

Progress in the Free State

The achievements of the Comprehensive Plan in the Free State fall short of the targets, revealing the mismatch between an idealistic plan and its implementation (Van Rensburg 2006a). Only 1,165[28] patients had commenced ART by the end of 2004/05 (FSDoH 2005a), which is below the national revised target for the province of 2,127, and even lower than the original target of 11,883, and also lower than the FSDoH's own target of 5,000 (Van Rensburg 2006a). Of these 1,165 ART patients, it was estimated that only 1,065 still had to receive ART at the time (FSDoH 2005a). By the end of September 2006, it was estimated that 5,684[29] adult patients had started ART, 25% of whom were lost to follow-up at that time (FSDoH 2006). However, the number of patients lost to follow-up may be an overestimation due to a backlog in capturing patient forms in the electronic record system (FSDoH 2006). In fact, by the third quarter of 2006, enrolment had increased markedly, with more than 600 new HIV-positive patients having joined the program each month (FSDoH 2006).

Equally, the accreditation of service sites has also fallen short of targets (Van Rensburg 2006a). The Free State developed a particular organisational model to implement the Comprehensive Plan, consisting of one treatment site (hospital-based,

[27] Of total number of AIDS sick people (not new cases).
[28] This figure is only for adults and does not include ART patients in NGO sites. The figure is 1,288 in Van Rensburg (2006a).
[29] This number excludes patients from sites without electronic data capturing systems, NGO sites and children on ART (FSDoH 2006).

predominantly doctor-driven) connected to three assessment sites (PHC facility, nurse-driven), but allowing for combined treatment and assessment sites to be established at individual facilities, which allows for the different needs in more rural areas and isolated small towns (Van Rensburg 2006a). By the end of 2005, only 8 treatment sites, 21 assessment sites, 10 combined sites and 1 satellite site[30] had been established (not all sites were operational yet), which contrasts with the target of establishing 28 sites at hospitals and 116 sites at PHC facilities during the period 2004-2006 (Van Rensburg 2006a).

In addition, despite the increasing number of patients on ART, the FSDoH has noted a slow-down in the speed of the expansion of the program in the third quarter of 2006 (FSDoH 2006). This decline in expansion has been attributed to sites reaching their full capacity, thus pointing to the need for new sites and/or additional staff to continue the expansion of the program (FSDoH 2006).

4.4 Mechanisms for HIV/AIDS financing and resource transfers

The South African government's response to the epidemic is funded primarily from domestic resources, which is different from other African countries that have a high HIV/AIDS burden (Gayle 2003). This is recognised as an indication of the commitment of the country to tackle the crisis, as well as of its financial capacity to pay, which makes the country exceptional in Sub-Saharan Africa.

The current framework for public HIV/AIDS financing in the health sector is organised into three major mechanisms:

- Conditional grants for HIV/AIDS interventions;
- HIV/AIDS funds within the equitable share allocations;
- The budget of the Chief Directorate: HIV and AIDS, STI and tuberculosis (TB) in the NDoH (hereinafter the National Directorate).

[30] New ART site modality established in August 2005 (Van Rensburg 2006a).

The first two mechanisms incorporate provincial expenditure, and account for the major share of HIV/AIDS health budgets, whilst the National Directorate refers to national expenditure, not provincial, and receives a relatively small share of funding (Hickey et al. 2003). Nearly 85% of public sector health funding flowed through provincial health departments, with the other 15% divided between national and local levels (NT 2005a). Therefore, the budget of the National Directorate is not the core focus of this research. The next section reviews the conditional grant and equitable share mechanisms, through which the bulk of HIV/AIDS resources are transferred to PDoHs.

A Conditional grant allocations for HIV/AIDS

Conditional grants are also referred to as dedicated budgets, ring-fenced funds or earmarked funds; they drive the multisectoral HIV/AIDS response in the country, and in particular the Comprehensive Plan. This dedicated budget started to finance the multisectoral response to HIV/AIDS[31] in 2000/01. The conditional grant mechanism involves the transfer of funds from national departments to their provincial counterparts. Funds are ring-fenced for specific programs designated by national government, and attached to specific conditions and monitoring requirements. The implementation of the Comprehensive Plan is mainly funded through the conditional grants mechanism in order to safeguard and speed up funding on HIV/AIDS activities.

Besides the HIV/AIDS conditional grant allocated to the DoH, there is also a conditional grant for HIV/AIDS to the Department of Education (DoE). This grant covers the life skills program, which aims to provide education on life skills, sexuality and HIV/AIDS in primary and secondary schools. Prior to 2006/07, there was a third conditional grant for HIV/AIDS to the Department of Social Development (DSD), the smallest of the three[32]. The conditional grant for health has always been the biggest of the three grants, and it has further grown more than the

[31] Before that year, HIV/AIDS related activities were funded through the departments (health and others) by means of their regular budgets, without such clear specification of how much was being dedicated to HIV/AIDS programs.

[32] This funding was eliminated in the year 2006/07 with the objective of delivering the funding through equitable shares (Ndlovu 2005a).

other two. In 2004/05, it received around 80% of the total HIV/AIDS funding to the social sector[33] (NT 2004a). This grant has grown since its inception partly due to the expansion of activities covered, and in particular the inclusion of ART interventions (Ndlovu and Daswa 2006a). Both its size and growth suggest that absorptive capacity problems may be greatest with this particular grant. This study focuses exclusively on the HIV/AIDS conditional grants for health as the instrument of financing the treatment component of the Comprehensive Plan. The education and social development grants are beyond the scope of this research.

Allocation mechanisms

The total amounts of conditional grants to health are negotiated between the National Treasury and the NDoH. The NDoH presents an estimated budget with the costs of interventions, and the National Treasury decides how much of the budget requested in the DoH proposal it will fund. It has been the case for the HIV/AIDS grant that the NDoH did not receive all requested funding; for example, only R334 million were granted in the budget 2003/4 out of the R428 million requested (i.e. 78% of the total amount requested) (Hickey et al. 2003). This could be because the budget was not properly justified or because National Treasury did not agree with the priorities presented, among other reasons[34].

Once the amount has been determined, the NDoH determines the horizontal division of conditional HIV/AIDS grants among the provinces[35]. The final funding received by provinces thus depends firstly on the total allocation from the National Treasury to the NDoH, and secondly on its distribution among the provinces by the NDoH.

Provinces annually submit business plans to the NDoH with their estimated resource needs. The NDoH then uses these plans to prepare their overall budget proposal to

[33] In 2004/05, amounts allocated to the three conditional grants were R782 million to the DoH, R129 million to the DoE, and R70 million to the DSD (NT 2004a)
[34] From interviews with members of Treasury.
[35] The division is based on the antenatal HIV prevalence survey, the estimated provincial shares of HIV-positive births, the shares of reported rapes and the estimated shares of HIV/AIDS cases (NT 2003a). In relation to the criteria used, Hickey et al. (2004, p.119) note that "indicators of need, as opposed to a province's relatively ability or readiness to spend, have become a more prominent determinant in 2003/04".

the National Treasury. The business plans therefore are a crucial instrument in the planning and allocation of HIV/AIDS conditional grants.

Interventions funded

Conditional grants may only be spent on specified activities, including VCT, PMTCT, community home-based care and support (CHBCS), step-down care, provincial management, and ARVs. The limited list of activities to be covered limits the capacity of provinces to use the grants for related support activities. Thus, it raises concerns of the extent to which conditional grants can actually support the strengthening of the health system, as aimed at by the Comprehensive Plan.

The amount to be allocated to each activity was initially directed from the national level, but this has changed and now provinces make the decision at their discretion. Provinces are allowed to modify the distribution of the total amount among the components during the course of the year, provided they have received approval from the NDoH.

Monitoring and reporting

Conditional grants are characterised by strong monitoring and reporting requirements. Provinces need to report quarterly on their expenditures to the NDoH, which is responsible for the overall monitoring of the grants. Monitoring requirements of dedicated funding are high. Moreover, the requirements for the HIV/AIDS conditional grant are said to be even higher than those for other health conditional grants[36], which places an extra burden on the financial managers.

B Equitable share transfers for HIV/AIDS

This transfer mechanism is also referred to as discretionary or own provincial funding. Provincial discretionary funding includes the equitable share it has received from national government as well as revenue raised by the province itself and donor

[36] From interviews with members of PDoHs.

funding given directly to the province, Yet, the latter funding sources are not normally considered in budgetary analysis because of their relative small contribution. Because of the equitable share mechanism, there is a pool of funds transferred to Provincial Treasuries from National Treasury, which provinces distribute among various provincial departments at their discretion. This mechanism is crucial to ensure the distribution of power and responsibilities towards the nine South African provinces according to the Constitution. This mechanism is also important in that it reflects province's commitment to the areas funded (Hickey et al. 2003).

In addition to the general functioning of the equitable share mechanism, a new mechanism was introduced in the 2002/03 budget (NT 2002a). National Treasury introduced targeted funds for HIV/AIDS through the equitable share pool. These funds were to be 'top-sliced' from the general provincial budget (Hickey et al. 2003). Within the PDoHs, these funds could appear on the HIV and AIDS sub-program budget, or be spread across other budget items.

Allocation mechanisms

Equitable share transfers flow from National Treasury to the Provincial Treasury, which allocates these resources among provincial departments, e.g. education, health, transport. National Treasury allocates the shares among the provinces according to a specific formula used for the horizontal division of revenue[37]. This formula is intended to address equity issues across provinces, but it has been criticised for not doing so sufficiently, partly due to the weights attached to its different components (McIntyre and Doherty 2004).

From the provincial allocations, a part is assigned by the province towards the PDoH for health interventions, and from there another part is assigned by the PDoH to specific HIV/AIDS interventions. Spending of this funding is thus entirely at the discretion of the provinces.

[37] The horizontal formula takes into account provinces' service needs in terms of health, education, welfare; their contribution to the national economy; and a backlog component introduced in 1999/2000 intended to favour the more rural and historically disadvantaged provinces (McIntyre and Doherty 2004).

In relation to the targeted increments for HIV/AIDS introduced in 2002/03, although these are in principle to be dedicated to HIV/AIDS, it is noted that national government has no legal mechanism to guarantee the use of these funds for the intended objectives (Hickey et al. 2003). No specific guidelines were found on how this mechanism works. Interviews conducted clarified that, at the same time as it transfers the equitable share funding, National Treasury sends an 'indication' of how much should be dedicated to particular areas, one of them being HIV/AIDS.

Interventions funded

The funding from the equitable shares to the PDoHs covers the implementation of overall health policies, not just HIV/AIDS. This mechanism supports the implementation of the Comprehensive Plan in two ways. Firstly, by financing the overall health system it supports the base for implementing HIV/AIDS interventions. And secondly, it funds the areas of the Comprehensive Plan not covered by conditional grants, such as administrative costs for example. This suggests that the discretionary mechanism may be more appropriate for supporting capacity building within the health system than the conditional one that is limited to a few specific interventions.

In particular for the targeted increments over the equitable share mechanism, the 2002/03 budget specifies that they are intended to deal with additional costs arising from the care of HIV/AIDS infected persons, including costs of hospitalisations and treatment of opportunistic infections (NT 2002a), and the 2003 budget stipulates that they are intended to promote the use of HIV/AIDS funding to strengthen provincial health systems and support HIV/AIDS treatment and care interventions once the Comprehensive Plan has been approved (NT 2003c).

Monitoring and reporting

Provincial allocations from their own budgets are not linked to specific interventions, and thus expenditure on HIV/AIDS is difficult to isolate and track. Furthermore, provinces do not need to report back to Treasury nor to the NDoH on

their expenditure as regularly as for conditional grants, nor do expenditures need to be disaggregated by program or intervention. Hence, it is difficult to track progress on specific activities against expenditures allocated to those through the equitable share mechanism, and to determine to what extent this funding has actually been used for HIV/AIDS interventions. This also applies to the targeted increases on the equitable share for HIV/AIDS.

C Donor funding

It has already been noted that the public HIV/AIDS policies in South Africa are mostly funded from domestic funding. Hence, this thesis concentrates on public financing of HIV/AIDS treatment. Nevertheless, it is important to acknowledge the role of external aid in South Africa for two reasons.

It has been claimed that there is a lack of precise information on how much funding donors provide and to whom[38] (Ndlovu 2005a). Thist lack of systematic recording of donor funding may have caused the underestimation of foreign aid for HIV/AIDS policies in the country. There are two major types of HIV/AIDS transfers by donors: bilateral aid to government departments, and international aid agency funding to NGOs (Hickey et al. 2004). When donor funding goes directly to provinces, they need not report back to national government on this spending. Hence, there are no official documents on the flow of funds from these foreign sources (Ndlovu 2005a). Moreover, the lack of coordination of donor contributions and the lack of accountability makes it difficult to track donor funding. Indeed, Ndlovu (2005a) notes that most of the available information on donor funding is based on financial commitments rather than actual expenditures.

Secondly, some provinces may be receiving significantly high external contributions from donors, specifically for ART. This could be explained by the international momentum to fund this type of interventions, as well as by the gap created by the

[38] Although there is no clear database with donor contributions to HIV/AIDS, some recent studies attempt to compile donor financing information, including Van Rensburg et al. (2002), the Organisation for Economic Cooperation and Development (OECD) (2004), and a more recent update in Ndlovu and Daswa (2006a).

delayed launch of the treatment plan by the South African government. For example, the WCDoH receives a grant from the Global Fund, which accounts for as much as one third of the total cost of the province's ART program (interview with the HIV and AIDS, TB and STI director, WCDoH, October 2006).. For these two reasons, it is important to take into consideration the role of foreign aid in financing the implementation of the treatment component of the Comprehensive Plan. Thus, the following sections examine the contributions of South Africa's two major donors in relation to HIV/AIDS policies: The United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund.

PEPFAR

PEPFAR claims to have given South Africa approximately $1,447.2 million between 2004/05 and 2008/09 (approximately $89.3 million in 2004, $148.2 million in 2005, $221.5 million in 2006, $397.8 million in 2007, and $590.9 million in 2008), and planned to give other $550.1 in 2009 for comprehensive HIV/AIDS prevention, treatment and care programs (PEPFAR 2010a). This represents an enormous amount of funding. For example, in 2004/05, PEPFAR funding to South Africa amounted to about R612 million[39],which would be as much as half of the total public HIV/AIDS provincial expenditure for that year (R1,148 million) in nominal terms, based on calculations in Chapter 5. Nonetheless, these figures need to be viewed with caution. It has been claimed that actual PEPFAR disbursements (and not only commitments) are not known. The study of Oomman et al. (2007, p.12) concluded that "aggregate figures on disbursements (i.e., outlays) from PEPFAR to individual recipients and the amount of money expended by recipients are collected by the U.S. government but are not made publicly available". Thus, it would be necessary to find out the actual disbursements and not only the committed amounts. In addition, it is not clear what exactly is considered under PEPFAR funding, as for example, in some instances PEPFAR includes the contributions given to the Global Fund as PEPFAR funding (PEPFAR 2010b). Moreover, it is noted that most PEPFAR funding goes to U.S. non-governmental entities, principally the U.S. Agency for International Development (USAID) and the Centers for Disease Control and Prevention (CDC)

[39] On 1 April 2008, 1$= 8.08 ZAR (fxtop.com 2010).

(Oomman et al. 2007, p.ix). Thus, although PEPFAR funding for HIV/AIDS treatment seems to be very significant, it is not clear to what extent and in which way.

The Global Fund

A different picture emerges from the Global Fund reporting, where data is clearly made available for each country and each grant, with details on funding committed and disbursed readily available on their website. The Global Fund disbursed a total amount of $191 million to South Africa by April 2010 (The Global Fund 2010a). Table 4.5 below provides full details of each of the six grants given by the Global Fund to South Africa up to 2010, including the amounts disbursed and the amounts still to be disbursed. Overall, 84% of total grants have already been disbursed (The Global Fund 2010a). All grants are HIV/AIDS-related. The principal recipient of these grants is the NDoH (according to Global Fund 2010), except the grant referred to as "strengthening and expanding the Western Cape HIV/AIDS prevention, treatment and care programmes", whose principal recipient is the WCDoH. Thus, because of the significant amounts disbursed, and because the National or provincial government are the principal recipients of the funding, the Global Fund is an important contributor to the South African HIV/AIDS funding policies.

Table 4.5: **Global Fund grants to South Africa, committed and disbursed ($)**

Grant title and number	Principal Recipient	Committed	Disbursed	Amounts not yet disbursed
Strengthening national capacity for treatment, care and support related to HIV and TB, building on successful behaviour change initiatives in South Africa (Soul City) SAF-102-G01-C-00.	NDoH	2,354,000	2,354,000	0
Strengthening national capacity for treatment, care and support related to HIV and TB, building on successful behaviour change initiatives in South Africa (Love Life) SAF-102-G02-C-00	NDoH	17,872,665	17,872,665	0
Enhancing the Care of HIV/AIDS infected and affected patients in resource-constrained settings in KwaZulu-Natal SAF-102-G03-C-00	NDoH	62,476,536	49,771,823	12,704,713
Strengthening National and Provincial Capacity for Prevention, Treatment, Care and Support Related to HIV and Tuberculosis SAF-202-G05-C-00	NDoH	24,400,220	17,168,533	7,231,687
Strengthening and expanding the Western Cape HIV/AIDS prevention, treatment and care programmes SAF-304-G04-H	WCDoH	66,501,629	62,190,178	4,311,451
Expanding Services and Strengthening Systems for the Implementation of the Comprehensive Plan for HIV and AIDS in South Africa SAF-607-G06-H	NDoH	55,071,906	41,933,349	13,138,557
Total		228,676,956	191,290,548	37386408

Source: Global Fund (2010a and b)

4.5 Mapping stakeholders around the Comprehensive Plan

This section maps out the major actors in relation to the HIV/AIDS Comprehensive Plan financing policy and implementation arena in South Africa. It sets the scene to link policy making and policy implementation, and the interrelationship of

stakeholders in terms of resource allocations and spending. It looks at four major sectors: government, private for-profit, private not-for-profit and beneficiaries of health services. The criteria to identify stakeholders are that these play a role in (a) financing the Comprehensive Plan, or (b) implementing the ART component of the Comprehensive Plan, or (c) benefiting from the Comprehensive Plan.

A Intra-governmental relationships

Three types of divisions characterise intra-governmental relationships in South Africa: across departments of government, across the national, provincial and local levels or spheres of government (vertical division), and horizontal division across provinces. In relation to the financing of the Comprehensive Plan, there are two major governmental departments involved: the DoH and Treasury, with their national and provincial counterparts. Figure 4.3 represents the relationship between these two core departments at the provincial and national levels with regard to the financing of the Comprehensive Plan.

***Figure 4.3*: Governmental relationships around financing of the Comprehensive Plan**

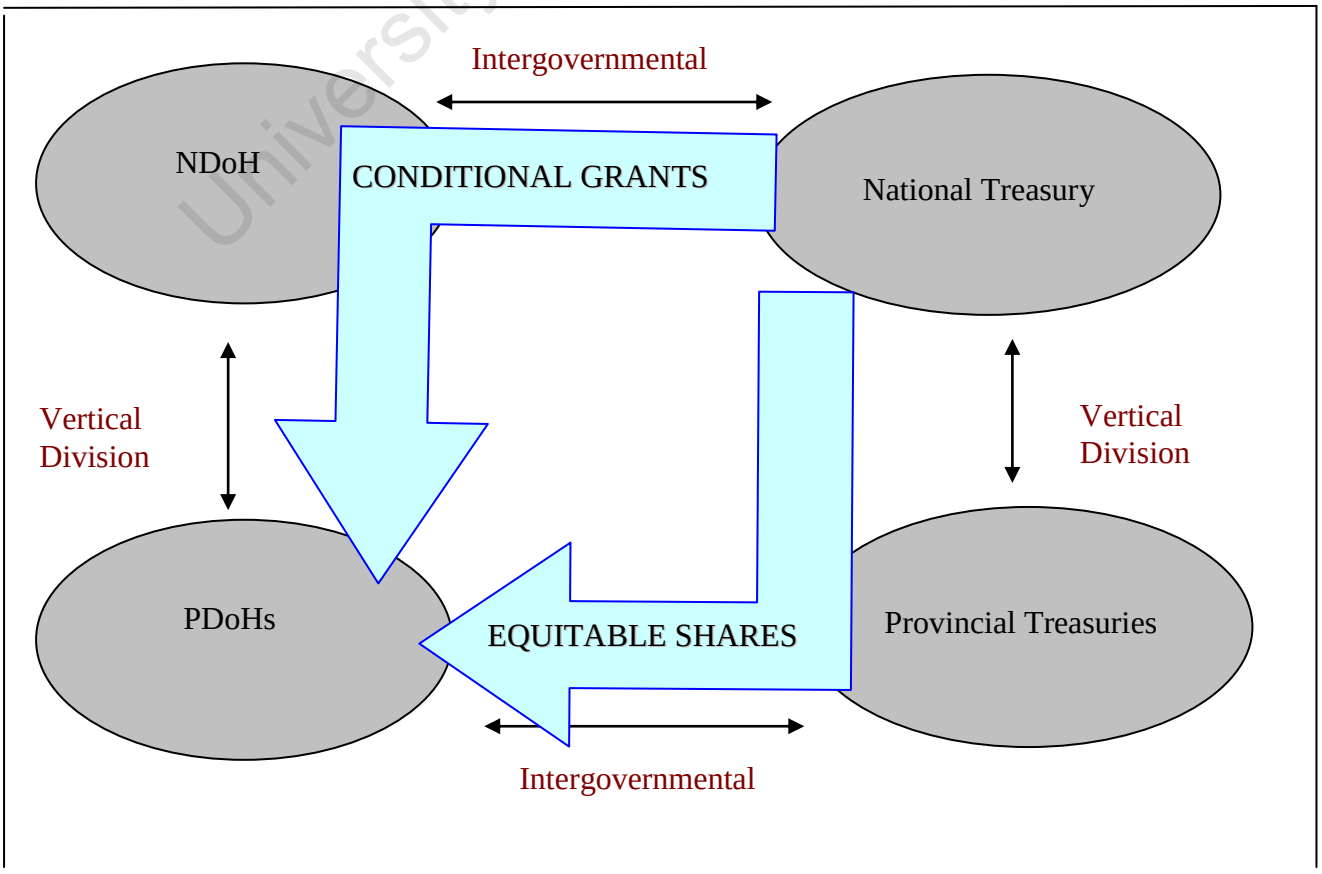


Figure 4.3 shows two flows of funds: on the one hand, conditional grant allocations flow from National Treasury to the NDoH, and on to PDoHs. On the other hand, equitable share allocations flow from National Treasury directly to Provincial Treasuries, and on to PDoHs. The vertical arrows denote the vertical relationships across national and provincial levels of government, whereas the horizontal small arrows denote the intergovernmental relationship between the DoH and Treasury. There is an extra governmental relationship not included in Figure 4.3, viz. that across the nine provinces of South Africa. These three interactions are explored below.

Vertical division and fiscal decentralisation

Following the first democratic elections of South Africa in 1994, South Africa's governmental structure was organised vertically into three levels: national, provincial, and local. Their functions and structures in relation to health are set up by means of several legislations[40], establishing the norms for the delivery of health services in the country. However, the arrangement of these structures is not yet finalised, in particular the division between local and provincial level (Van Rensburg and Pelser 2004).

Since 1994 there has been an ongoing process of fiscal decentralisation, from the national sphere towards provincial and local levels, involving both the transfer of funds and decision-making power with regard to how to spend these funds. Overall, the NDoH is responsible for, among others (Van Rensburg and Pelser 2004):

[40] Including the *White Paper for the Transformation of the Health System in South Africa* (DoH 1997), and more recently the *National Health Act* of 2003 (RSA 2003).

- Leadership in formulating policy and legislation, planning, strategic management, and quality assurance;
- Support to build the capacity of PDoHs and municipalities, and to access cost-effective health commodities;
- Regulation of the public and private sectors.

Provinces in turn are responsible for the implementation of policies and delivery of services. Whilst provinces need to act in accordance with the national health policy, they have a certain degree of autonomy in relation to legislation of certain province-specific matters, in the same way as local governments (Van Rensburg and Pelser 2004). Local government is organised into district and local municipalities[41]. A health district is the structure at the local level, and it is responsible for delivering PHC.

In relation to health matters, local governments are primarily responsible for environmental health. In relation to HIV/AIDS services, local governments provide a range of activities, including home based programmes and addressing the impact of AIDS on communities (Blaauw et al. 2004). Some cities like Cape Town have a significant role in financing HIV/AIDS programmes. Nevertheless, overall, the participation of the local government in the financing and implementation of the Comprehensive Plan is relatively small in comparison to the other levels. The local government and national government together allocate only 15% of the health budget, with the remaining 85% being allocated by provincial governments (NT 2005a). Therefore, local government is thus excluded from the analysis presented in this thesis.

The vertical division of the national budget determines the allocation of resources according to the three spheres of government. In the case of health, a higher percentage of the budget is allocated to provinces for the implementation of health programs, in comparison to the overall public transfers. This vertical division of

[41] Local government is organised into six metropolitan municipalities (Cape Town, Ekurhuleni, Ethekwini, Johannesburg, Nelson Mandela and Tshwane), 231 local municipalities, and 47 district municipalities (Burger 2006).

revenue also shapes government's HIV/AIDS response. At the national level, the National Directorate at the NDoH is at the centre of HIV/AIDS programs. The Directorate is responsible for the enactment, management and M&E of the Comprehensive Plan. It is also responsible for tasks that may not be adequately dealt with at provincial level, notably drug procurement and distribution. At the provincial level, the provincial HIV/AIDS units within PDoHs coordinate the execution of the program. PDoHs receive and manage the conditional grant for HIV/AIDS via HIV/AIDS directorates or sub-directorates with full time staff responsible to implement HIV/AIDS activities. Some PDoHs also employ HIV/AIDS coordinators at a district level.

Departmental divisions along HIV/AIDS policy

It has already been noted that the South African Government's response to the epidemic is multisectoral, as HIV/AIDS is not merely a health issue. Consequently, several other governmental departments, such as the DSD and the DoE, are involved in the implementation of HIV/AIDS policies. In relation to the financing of the HIV/AIDS treatment response within the health sector, two departments are involved: the DoH is at the core of the response, while Treasury plays a key role in financing, allocating and monitoring expenditures. Other ministries could be added to the framework; for example, it could be argued that the role of the Presidency is also crucial in providing overall guidance and leadership in government, and prioritising the fight against the epidemic. However, this study focuses exclusively on Treasury and DoH, as they are the most instrumental in financing HIV/AIDS treatment.

The relationship between the DoH and Treasury over HIV/AIDS finances at the national level is built upon a series of processes. The NDoH presents the National Treasury with a proposed HIV/AIDS budget for the following year. National Treasury is responsible for approving the budget, totally or partially, or not approving it, and transferring the resources to the NDoH. In addition, National Treasury is responsible for transferring the national equitable shares grant to provinces. Then Provincial Treasuries would distribute that funding among the multiple provincial departments, one of them being the PDoH. Thus, the allocations

of the National Treasury, and thereafter from Provincial Treasuries, affect directly the overall budgets of the PDoHs.

Horizontal division of HIV/AIDS funding

The horizontal division of expenditure refers to that of the nine South African provinces formed after the first democratic elections in 1994. The allocation of resources among the provinces is vital for equity purposes. Due to the historical imbalances, the main priority of the democratic system is to tackle the geographical differences and assist traditionally disadvantaged areas. This is pursued, among other things, through the national division of revenue across provinces.

With regard to HIV/AIDS financing in the health sector, there are two major divisions of the budget across provinces: firstly, the division of the national revenue through the equitable share mechanism, undertaken by National Treasury; secondly, the division of the HIV/AIDS conditional grant for the health sector, allocated by the NDoH across provinces.

South African National AIDS Council (SANAC)

SANAC was established in 2002 to coordinate the country's multisectoral response to HIV/AIDS. SANAC includes a broad range of civil society organisations, private sector, people living with HIV/AIDS (PLWHA) and government departments (not only DoH). Nonetheless, the meaningful participation and coordination of the Council has been questioned (Strode and Barret 2003). It is argued that with the secretariat based within the DoH and actual domination by members of government, there has been little space for the civil society sector to have a strong voice. Furthermore, it has been claimed that the influence of SANAC in HIV/AIDS policies has been weak due to the lack of a strategic plan and organisational policies (Strode and Barret 2003).

In 2003, SANAC was restructured. However, its capacity in monitoring financial flows remains deficient, which has hampered its involvement with the Comprehensive Plan. The perception of its low instrumental value has pushed civil

society organisations to pursue other forums. Again, the Presidency announced the re-structuring of SANAC on December 2006 (Presidency 2006).

B Non-governmental stakeholders in the implementation of the Comprehensive Plan

As this study follows the allocation of public funds, it concentrates in particular on governmental relationships. However, the full spectrum of stakeholders involved in the Comprehensive Plan cannot be described without considering the rest of the stakeholders in ART delivery, namely the private for-profit and not-for-profit sectors, and beneficiaries. The Comprehensive Plan recognises the role of the private sector, NGOs and community-based organisations in enhancing treatment by providing assistance with adherence and a caring support network (DoH 2003a). Besides treatment delivery, there are other inputs of the private sector in relation to the financing and implementation of the Comprehensive Plan, which are briefly summarised below.

Private for-profit organisations

Also referred to in this study as the private sector, it includes private hospitals and other centres providing ART and other HIV/AIDS related services. This sector is important, as it began to provide ART in South Africa before the launch of the Comprehensive Plan. It is estimated that around 110,000 people were receiving ART in the private sector in 2006 (WHO et al. 2008). The Comprehensive Plan advocates making more use of private health professionals in the public sector and enhancing public-private partnerships (DoH 2003a). The role of the private sector is crucial in delivering HIV/AIDS related services, but also in other areas, such as training and medical support, and drug procurement.

The private health sector is particularly strong in South Africa, and it concentrates more resources onto each person covered since 1994 than the resources devoted to people covered by public health expenditure (McIntyre and Doherty 2004). Its strong presence has often resulted in imbalances between public and private health care, which constitute one of the major challenges for achieving equity in health services

in South Africa (McIntyre and Doherty 2004). Its great capacity could also be seen as an opportunity, as it could be a major source for resources, for example in terms of personnel and expertise, to be used for the public ART program. Indeed, the Comprehensive Plan is supportive of engaging in public-private partnerships (PPP) to utilise the great potential of the private sector.

Private not-for-profit sector

The private not-for-profit sector is composed of NGOs and civil society organisations (CSOs), including faith based organisations (FBOs) and community-based organisations (CBOs). This sector mobilises and leverages social forces in the fight against the epidemic. The capacity of these organisations is crucial in combating the epidemic at all levels, from informing and shaping policy through implementing programs to monitoring achievements. This sector has played a crucial role in several aspects of the HIV/AIDS response in the country, and in particular in developments around HIV/AIDS treatment. There is a wide range of organisations, which constitute a rich critical mass of social capital. The list presented below is not exhaustive, but aims to provide an overview of the rich variety of existing private not-for-profit organisations active in the HIV/AIDS field.

Firstly, MSF has been a pioneer in establishing ART projects in the country. Their project in Khayelitsha is often mentioned as a 'best case' example worldwide, showing that it is possible to provide ART in low-resource settings (WHO 2003b; Kasper et al. 2003).

Secondly, activist organisations, such as the Treatment Action Campaign (TAC), which uses a human rights approach to promote the right to access ARVs and puts pressure on government to deliver ART[44]. Thirdly, other umbrella organisations and forums, such as JCSMF, undertake regular monitoring of the rollout of the treatment program. Fourthly, research institutes, such as IDASA or HST, are crucial in analysing and monitoring government's HIV/AIDS expenditure and outcomes. Fifthly, PLWHA associations could be a significant lobby group given the high

[44] TAC took the South African Government to Court for not delivering PMTCT, which was an important step in the history of HIV/AIDS prevention and treatment in the country.

number of people infected and affected by the epidemic. Finally, FBOs and community based organisations have mobilised around a wide range of issues to alleviate the impact of the epidemic, such as delivering home-based care to people infected and affected by the disease.

The interaction of these organisations with government is diverse and dynamic. Overall, it seems that NGOs have a somewhat controversial relationship with national government, but a closer interaction and more cooperative relationship with provincial and local government, although experiences vary across the territory.

Beneficiaries

In this thesis, the term 'beneficiaries' refers exclusively to HIV-infected individuals who are in need of ART. Around 764,000 people were in need of ART in 2006, out of which only 32.6% were receiving it (Dorrington et al. 2006).

Nevertheless, the scope of the beneficiaries group reaches beyond the infected individuals, as treatment benefits directly the families of the people on treatment, and the wider community. Moreover, the group of beneficiaries could also be understood as the whole country, given the demonstrated impact of the epidemic at all levels of the society, the economy and political affairs (Barnett and Whiteside 2002; Haacker 2004; Marais 2005). For example, private companies directly benefit from providing ART to their employees by extending their lives and boosting their productivity.

4.6 Conclusion

South Africa has the largest population infected with HIV in the world. Nevertheless, it was only in 2003 that a government plan for treating the AIDS sick population with ART was first announced. The large and growing population in need of ART poses one of the major challenges for the program's success. The Comprehensive Plan is the benchmark in the promotion of HIV/AIDS treatment through the public sector in South Africa. Since its inception, the number of people

enrolled on ART has increased significantly, though is still well below the target. The progress in its implementation could be interpreted as slow and unsuccessful when compared to the original targets, or as fast and substantial, taking into account achievements made in the short time of implementation.

A wide range of actors is involved in the financing and implementation of the Comprehensive Plan, including the DoH and Treasury, and other stakeholders outside government, such as the private for-profit and private not-for-profit sectors, and beneficiaries. The complex interaction among these actors hints at the importance of effective mechanisms for communication and coordination.

In relation to funding mechanisms, conditional grants are the pillar supporting the implementation of the Comprehensive Plan, enabling a direct transfer of funding and ensuring its allocation to HIV/AIDS. Equitable shares, conversely, seem more suitable for funding overall capacity building in the system and for supporting activities not covered by the conditional grants. The next chapter investigates the growth and spending patterns of both mechanisms, as an indication of the capacity of the system to absorb the available funding.

CHAPTER 5 HIV/AIDS BUDGETS IN SOUTH AFRICA

5.1 Introduction

South African PDoHs have multiplied their HIV/AIDS expenditure significantly since 2000/01. Growth rates of HIV/AIDS funding are far above those of overall health funding; during the period 2000/01-2008/09, public health expenditure grew at an average of 4% in real terms, while provincial public HIV/AIDS expenditure within the health sector grew at an average of 50% in real terms. HIV/AIDS is in fact one of the health sub-programs with the highest growth, and driving most of the growth in the overall health budget (NT 2004a). As explained in the previous chapter, expansion of HIV/AIDS provincial budgets is driven by both conditional grants and allocations from the equitable share formula, though the contribution of ring-fenced funding is significantly larger than from own provincial allocations.

Nevertheless, actual spending has lagged behind budget allocations. Low spending rates of HIV/AIDS conditional grants emerged as a crucial challenge, particularly in the initial years of the conditional HIV/AIDS grant. Since then, spending has improved considerably, due to several factors, including among others the relaxation of reporting requirements on conditional grants. With regard to discretionary funding, it is difficult to track spending performance due to its 'discretionary' nature and less strict reporting conditions. Yet, there are signs of spending deficiencies of discretionary funding too.

This chapter examines the financing and spending patterns of HIV/AIDS expenditure for both conditional grants and equitable share allocations. It also provides insights into the capacity challenges of spending such increased funding, and it compares the strengths and weaknesses of both funding mechanisms. Finally, the chapter provides insights into the strengthening of the health system, and the efficiency, equity and sustainability of HIV/AIDS funding growth from a budget perspective. Except when stated otherwise, all expenditure data presented in this chapter, including growth rates, are presented in real terms. Real figures are

calculated with 2006/07 as base year. See Appendix 15 for the inflation rates and deflators used in the calculations of real values.

As a methodological note, as noted in Chapter 2, calculations in this chapter are based on the budget data available in May 2006. Calculations have thus not been updated with more recent data in order to truly reflect the information available at the time of the fieldwork. The budget data are: audited financial statements for years 2000/01-2004/05 (thus actual expenditure); pre-audited financial statements for 2005/06; current allocations for 2006/07; and projected budgets for 2007/08 and 2008/09. Chapter 10 updates the analysis with data available in January 2009.

As explained in Chapter 2, there may be a systematic negative bias reducing the increases in HIV/AIDS budgets reflected in this chapter. This is due to the use of different budgetary sources, i.e. actual expenditure, current allocations and projected budgets, in two ways. Firstly, for the years 2000/01-2004/05, when audited actual expenditure is used, it is argued that there was underspending of budgets; this means that the initially budgeted amounts were higher than shown by the actual figures. Secondly, the projected figures used for 2007/08-2008/09 are claimed to be mere increments over the baseline, and lower to what the budgets would be (see later in the chapter). This bias could be eliminated as budgeted figures are revised with actual expenditure.

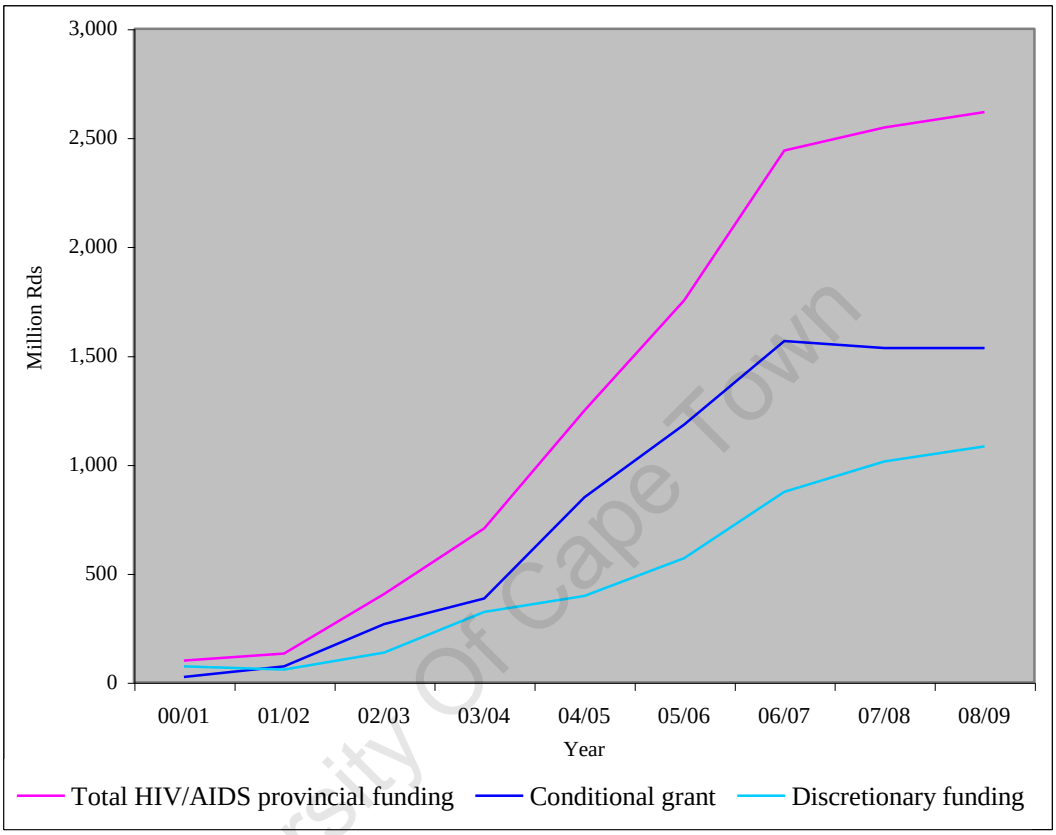
5.2 Increases in HIV/AIDS expenditure in PDoHs

Provincial public HIV/AIDS expenditure[45] has been increasing continuously since 2000/01, when the HIV/AIDS conditional grant mechanism was launched. Increases in PDoHs are led by both the HIV/AIDS conditional grants and allocations made from the equitable share mechanism. Figure 5.1 and Table 5.1 give an overview of the evolution of funding for both mechanisms for the period 2000/01-2008/09. The aggregated provincial HIV/AIDS budget increased from about 100 million in 2000/01 to 1,200 million four years later, and it is expected to rise to 2,600 million

[45] HIV/AIDS expenditure refers to both conditional and discretionary funding in PDoHs, unless specified otherwise.

in 2008/09. Overall, there has been a real increase of about R2.5 billion over the period, which means that in 2008/09 the budget is 25 times larger than in 2000/01.

***Figure 5.1*: Real growth in total HIV/AIDS expenditure in PDoHs, 2000/01-2008/09[a]**



[a] Real terms in 2006/07 prices
Source: Author's calculations from provincial HIV/AIDS budgets (NT 2006a-2006i), NT (2002b) for 2001/02 and NT (2004a and 2006l) for 2000/01; inflation from Statistics South Africa (SSA) (2008a) and NT (2008a)

***Table 5.1:* Real increases of total HIV/AIDS expenditure in PDoHs, 2000/01-2008/09[a]**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
HIV/AIDS expenditure, real (R million)	99	132	405	707	1,248	1,754	2,441	2,548	2,617
Real growth rate (%)		33.4	206.1	74.5	76.4	40.6	39.2	4.4	2.7

[a] Real terms in 2006/07 prices.
Source: Author's calculations from provincial HIV/AIDS budgets (NT 2006a-2006i), NT (2002b) for 2001/02 and NT (2004a and 2006l) for 2000/01; inflation from SSA (2008a) and NT (2008a)

As Figure 5.1 and Table 5.1 illustrate, HIV/AIDS expenditure in the provincial budgets has risen sharply during this period. The average annual growth rates between 2000/01 and 2008/09 have been 50.5% in real terms and 60.6% in nominal terms (see Appendix 16 for nominal figures). The real growth rate in expenditure in 2002/03 was around 200%, but it has declined over time. Over the last two years, real expenditure has grown by less than 5% on an annual basis (see Appendix 16), probably because the 2006/07-2008/09 figures are expenditure projections in the MTEF framework, which are often revised upward in actual budgets for the particular years.

As shown in Figure 5.1, conditional grants are the major driver of this growth. Overall, conditional grants contributed around two thirds of total funding. Only in 2000/01 did the share of discretionary funding exceed the share of earmarked funding, which indicates that provinces were already allocating funding for HIV/AIDS before the conditional grant mechanism was created. In 2001/02, the increase in conditional grants was parallel to a decrease in equitable shares. Disaggregated growth rates for the two financial mechanisms, presented later in the chapter, show that in 2001/02 HIV/AIDS conditional grant funding rose by 218%, while discretionary funding decreased by 21%. This trend suggests that in that year provinces were using their earmarked allocations to replace their own spending. Appendix 17 presents the proportional contribution of conditional grants and equitable shares in total HIV/AIDS funding.

The next sections discuss the growth of HIV/AIDS conditional grants, of discretionary funding, in the Western Cape and in the Free State, as well as discussing capacity constraints in dealing with these funding increases.

A Increases in HIV/AIDS conditional grants in PDoHs

HIV/AIDS conditional grants have grown continuously since their inception, in both nominal and real terms, as summarised in Table 5.2 (real figures) and Appendix 16 (nominal figures). The HIV/AIDS conditional grant for health was created in 2000/01 with R17 million, and since then it has grown to over R200 million in two

years, and to over R1 billion in 2005/06 (in nominal terms). By the end of 2008/09, the grant exceeded R1.7 billion (nominal terms). These figures reflect very high investments in the grant, resulting in a total real increase by 2008/09 of about R1.5 billion in conditional HIV/AIDS expenditure over 2000/01.

Table 5.2: **Real growth in HIV/AIDS conditional grants in PDoHs, 2000/01-2008/09[a]**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Conditional grant, real (R million)	25	74	268	385	850	1,184	1,567	1,534	1,534
Growth rate, real (%)		192.8	263.7	43.4	121.0	39.2	32.4	-2.1	0.0

[a] Real terms in 2006/07 prices

Source: Author's calculations of growth rates and real terms from NT (2002b, 2004a, 2006k); inflation from SSA (2008a) and NT (2008a)

The average annual real growth rate over the period 2000/01-2008/09 was 67.1%, and 99.2% in nominal terms (see Appendix 16). As shown in Table 5.2, growth was especially high at the beginning, when it reached rates of 192.8% in 2001/02 and 263.7% in 2002/03. These rates reflect the big push given to HIV/AIDS funding with the introduction of the conditional grant in 2000/01. There was another substantial increase in 2004/05, which reflects the generous funding allocations for the implementation of the Comprehensive Plan (NT 2004a).

In the financial year 2003/04, the conditional grant grew by 43.4%, a significantly smaller increase than in previous and following years. This may be due to the accumulation of unspent funding between 2000/01 and 2001/02, which may have led to (a) the need to spend the rollovers from previous years; and, as a result, (b) lower allocations to the grant by National Treasury and/or NDoH for that year. Yet, this increase in the grant is still substantial[46]. It is important to note that conditional grant figures up to 2004/05 are audited financial statements, which reflect final

[46] This increment was intended to implement additional program priorities: post exposure prophylaxis for victims of sexual abuse, rollout of PMTCT and targeted interventions for commercial sex workers (NT 2003a).

expenditure, and which may thus be lower than the initially budgeted and/or allocated amounts due to underspending.

Since 2005/06, although ring-fenced funding continued to rise, it has done so at lower rates, below 40% in real terms in both 2005/06 and 2006/07. Growth rates decreased further at the end of the period, turning into a real decline by 2007/08. This decline in 2007/08 and 2008/09 is less relevant, as it reflects mere increments over the MTEF, around 5% in nominal terms (see Appendix 16). Budget revisions normally add increments over the MTEF baselines, and thus it is expected that these figures would be higher with the updates of the budget. However, the concern remains of how much the conditional grant would actually increase, as previous growth rates have been decreasing.

When comparing financial allocations over time, it is important to bear in mind the change in activities covered by the grant (Hickey et al. 2004). In particular, the introduction of the treatment component introduced by the Comprehensive Plan launched in November 2003 was a turning point in the response to the epidemic. Earmarked funding had to increase considerably to respond to the demands of the new treatment component, among others. This explains the high growth rate of the grant in 2004/05 (121% in real terms).

In summary, the HIV/AIDS conditional funding injected into PDoHs has grown markedly since its inception in 2000/01. Overall, three periods of growth could be identified: first, initial sharp increases up to 2002/03; second, intense but steady growth between 2003/04 and 2006/07; and finally, nominal increases around the inflation level for the last two years, which reflect only MTEF allocations rather than actual expenditure.

B Increases in discretionary funding for HIV/AIDS in PDoHs

PDoHs have increased their HIV/AIDS allocations from their own budgets throughout the period 2000/01-2008/09, as reported in Table 5.3. The only exception is in the year 2001/02, when discretionary funding decreased by as much as 20.7%. Since then, increments of discretionary funding have been significant. Whereas in

2001/02 allocations were R43 million, this more than doubled the next year, reaching more than R350 million in 2004/05, and over 1.2 billion by the end of the period. Discretionary allocations increased by more than R1 billion from 2001/02 until 2008/09 (in real terms), as shown in Table 5.3. For allocations in nominal terms, see Appendix 16.

Table 5.3: **Real growth in HIV/AIDS discretionary allocations in PDoHs, 2000/01-2008/09[a]**

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Discretionary expenditure, real (R million)	74	59	137	323	398	570	874	1,014	1,083
Growth rate, real (%)		-20.7	133.7	135.1	23.2	43.5	53.3	16.0	6.8

[a] Calculated by deducing conditional grants expenditure from total HIV/AIDS expenditure of provincial budget statements. Real terms in 2006/07 prices
Source: Author's calculations from NT (2002b, 2004a, 2005a, 2006a-2006i, 2006k, 2006l); inflation from SSA (2008a) and NT (2008a)

The average annual growth rate during the period was 39.8%, which is as much as 49.2% in nominal terms (see Appendix 16). This is a very significant growth rate. As explained earlier in the chapter, the negative rate in 2001/02 may be a consequence of the high increase in conditional grants that year, and suggests that provinces started to use earmarked funding for items previously funded through equitable shares. Very high growth rates are recorded in 2002/03 and 2003/04 (in real terms, 133.7% and 135.1% respectively), which may reflect the introduction of the new additions to the equitable share formula targeted for HIV/AIDS. This funding mechanism is examined later in this section.

There was a notable decrease in the growth rates in 2004/05. Again, this may be attributed to the significant increase in the HIV/AIDS conditional grant of that year for the implementation of the Comprehensive Plan. In 2005/06 and 2006/07, rates increased but remained significantly lower than during the first years of the period.

Nevertheless, allocations for HIV/AIDS from the equitable share mechanism are below those of conditional grants during most of the period. Equally, the real average annual growth rate for the period (39.8%) is below that of the conditional grant (67.1%).

The comparison of other estimates of discretionary expenditure by other studies confirms the same positive trend of discretionary allocations over time (see Appendix 18 for a comparison of estimates). Although estimates vary slightly, the differences are relatively small and steady throughout the period, suggesting consistency with the results from different estimations. Differences may be due to different expenditure estimates available at the time of the study, whether past audited or revised, or future MTEF estimates, and/or calculation methods. The difficulty and differences in tracking HIV/AIDS discretionary funding, as discussed in Chapter 2, suggest that the figures need to be treated with caution.

Targeted increases to the equitable share

Very relevant for this period are the additions of HIV/AIDS funding to the equitable share transfers, as explained in Chapter 4. These increases were first conceived in the 2002/03 budget and were later revised in budget 2003/04, which are presented in Table 5.4 below. Appendix 19 compares 2002 and 2003 budgets.

Table 5.4: **Targeted allocations for HIV/AIDS added to the equitable share transfers in 2003/04 budget, 2002/03-2007/08**

R million	02/03	03/04	04/05	05/06	06/07	07/08
Targeted allocations	0	500	1,000	1,500	1,590	1,670

Source: NT (2002a) and Mark Blecher (National Treasury, personal correspondence April 2008)[47]

Table 5.4 shows that the budgeted allocations are substantial, exceeding R1,600 million in 2007/08. These allocations even exceed the HIV/AIDS conditional grant allocations to PDoHs for those years. However, as it will be discussed later, the actual spending of this funding is a different matter.

[47] Figures for 2002/03-2004/05 are also in NT (2002a). However, the rest of the figures could not be found in any of the National Treasury budget documents for 2002 or 2003 available in the National Treasury web page (http://www.treasury.gov.za/).

Although Table 5.4 shows no allocations in the year 2002/03, budget 2002 estimated that R400 million were allocated through this mechanism in that year (see Appendix 19). In addition, there are reasons to suspect that some extra allocations took place in 2002/03. PDoHs spent around R107 million on HIV/AIDS from their own budget that year. This is a substantial amount, and it would indicate that PDoHs made a great financial effort, if budget 2003 indeed correctly reflects that there were no extra increases for HIV/AIDS that year. Moreover, the *Adjusted Estimates of National Expenditure* (NT 2003d) records that R90 million were allocated to HIV/AIDS for the national ART program, conditional on the approval of the Comprehensive Plan; this was classified under unforeseeable and unavoidable expenditure. This suggests that some extra allocations were transferred to provinces in one way or another.

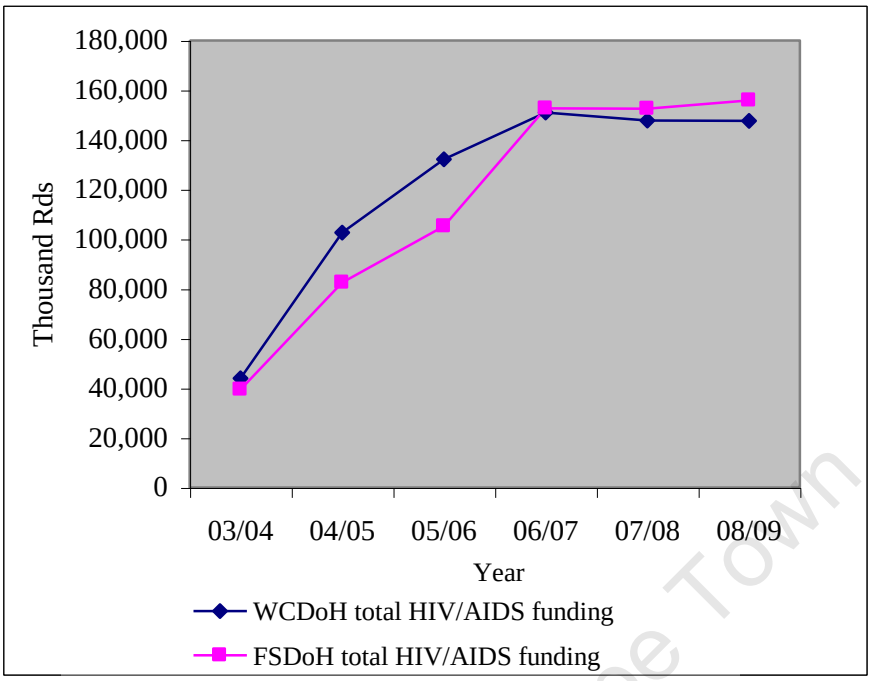
In summary, there were significant increases in discretionary HIV/AIDS funding throughout the period of 2000/01-2008/09. The highest annual growth rates in discretionary funding were recorded in the early years of the period, with growth in discretionary funding becoming more moderate since 2004/05. Targeted HIV/AIDS allocations over the equitable share are also substantial for the period 2003/04-2007/08, or even earlier.

C HIV/AIDS financing increases in the Western Cape and the Free State DoHs

The HIV/AIDS expenditure in the DoHs of the Western Cape and the Free State has grown substantially, though with different patterns and compositions. Figure 5.2 below compares the evolution of overall HIV/AIDS expenditure in the PDoHs of both provinces for 2003/04-2008/09[48]. The detailed expenditures and growth rates for both provinces, disaggregated by equitable share and conditional grants is reported in Appendix 20.

[48] The period only covers from 2003/04 up to 2008/09 due to data availability.

***Figure 5.2*: Real total HIV/AIDS financing in the WCDoH and the FSDoH, 2003/04-2008/09[a]**



[a] Real terms in 2006/07 prices
Source: Author based on NT (2002b, 2003b, 2005c, 2006b, 2006i, 2006k); Ndlovu and Daswa (2006); inflation from SSA (2008a) and NT (2008a)

The HIV/AIDS expenditure of both provinces has grown substantially, though at different speeds. As illustrated in Figure 5.2, total HIV/AIDS funding in the WCDoH exceeded that of the Free State until 2006/07; since then, the relationship has been inverted, though differences are small. During 2003/04-2008/09, WCDoH HIV/AIDS funding grew by R104 million, slightly below the R116 million increase for the Free State. For the same period, the average annual growth rate of the Free State (32%) is slightly above that of South Africa (30%) and above that of the Western Cape (27%). Both provinces showed higher annual growth rates at the beginning; this decreased over time, even reaching negative numbers in the last two years. Unfortunately, there is no growth data from 2000/01-2003/04, which would correspond to the stage of highest growth at the national level[49].

It is interesting to comment also on the financing relative to the burden of the disease. Table 5.5 below shows that, at national level, R443 was spent per each HIV infection in 2006/07. In the same year, the Western Cape spent more (R565) and the

[49] Although from 2000/01-2003/04 there is data on conditional grants, information on the equitable shares is more restricted.

Free State less (R394) than the national average. The spending per AIDS sick population shows similar patterns, though the spending of the Western Cape is far higher, even twice as much as the national average. Thus, relative to the burden of the disease, the Western Cape spends more resources on HIV/AIDS than the Free State, and more than the national average.

Table 5.5: **Western Cape and Free State HIV/AIDS expenditure relative to the burden of the epidemic**

	Western Cape	Free State	National
HIV infections, 2006	267289	387770	5511751
AIDS sick population (mid 2006)	19736	46249	633931
HIV/AIDS funding, real 2006/07 (R thousand)	150954	152703	2441110
Ratio expenditure per HIV infections (R)	565	394	443
Ratio expenditure per AIDS sick population (R)	7649	3302	3851

Source: Author based on ASSA (2005b) for HIV infections and HIV/AIDS prevalence; expenditure figures from NT (2006b, 2006,); inflation from SSA (2008a)

With regard to the relative contributions of the two mechanisms, the Western Cape relies far more on its own provincial funding than the Free State does, as shown in Figures 5.3 and 5.4.

Figure 5.3: **Real HIV/AIDS financing in the WCDoH, 2002/03-2008/09[a]**

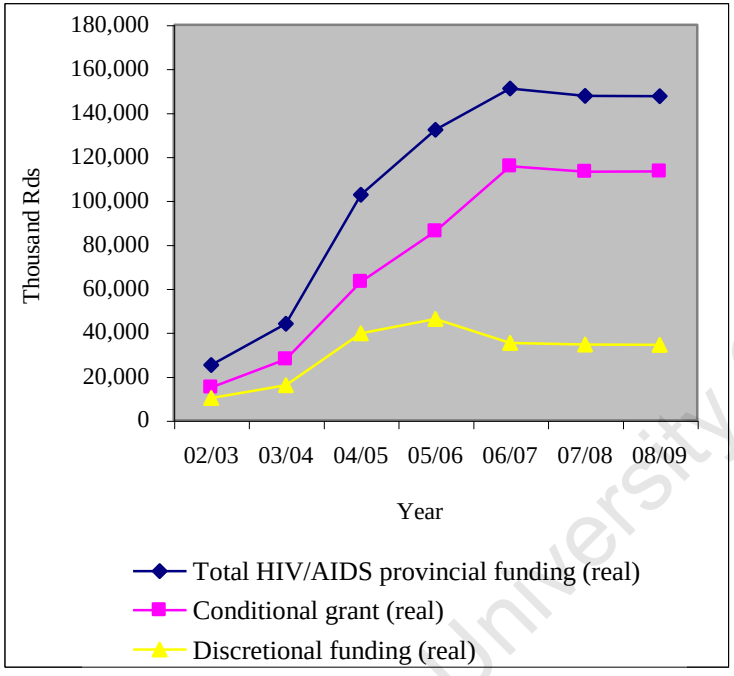
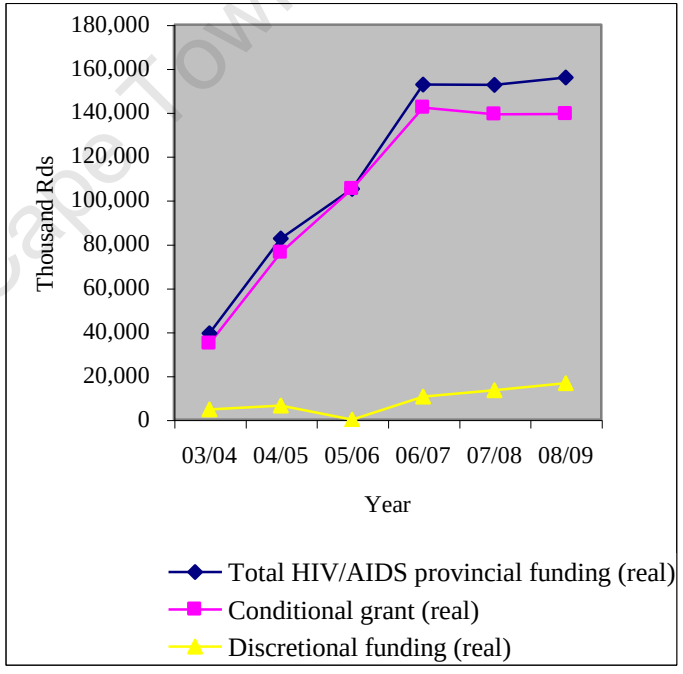


Figure 5.4: **Real HIV/AIDS financing in the FSDoH, 2003/04-2008/09[a]**



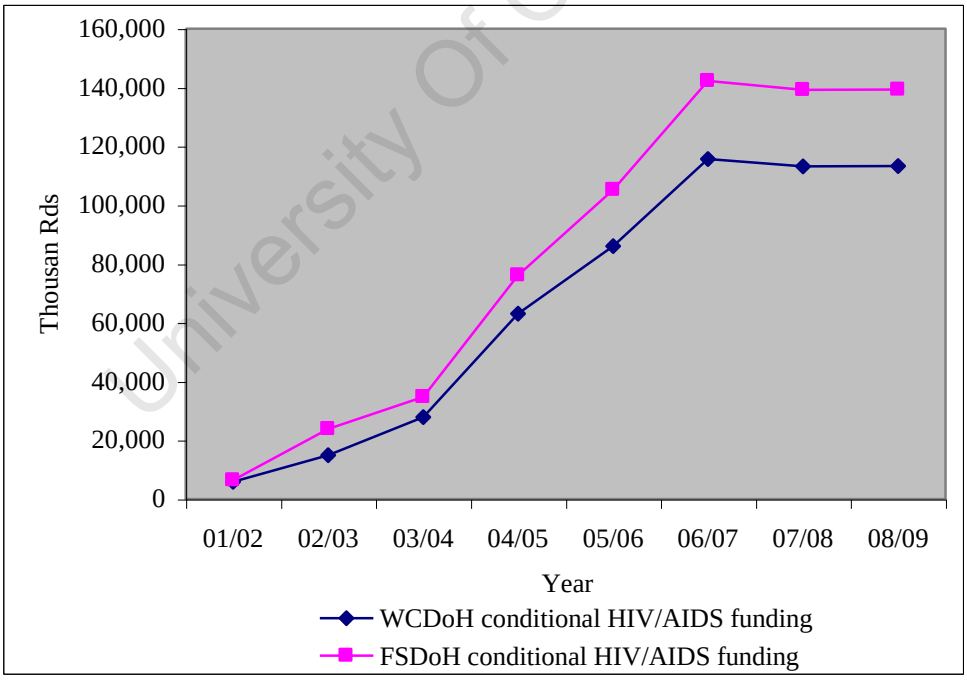
[a] Real terms in 2006/07 prices

Source: Author based on NT (2002b, 2003b, 2005c, 2006b, 2006i, 2006k); Ndlovu and Daswa (2006); inflation from SSA (2008a) and NT (2008a)

The contribution of ring-fenced funding to total HIV/AIDS funding in the Free State is very high, around 90% for the entire period. That of the Western Cape is significantly lower, around 60% until 2005/06, although it has also increased over time, up to nearly 80% since 2006/07, and it is closer to the average national contribution, which is between 50% and 70% between 2003/04-2008/09 (see Appendix 21 for the relative contribution of both mechanisms in the WCDoH, the FSDoH and at national level). This suggests a higher reliance on conditional grants in the Free State, and a greater commitment in the Western Cape to devoting additional funds from the province's own resources to the epidemic, maybe because the Western Cape is a wealthier province.

In relation to the evolution of earmarked funding, it is clear from Figure 5.5 that it has grown in similar ways for both provinces.

***Figure 5.5*: Real HIV/AIDS conditional financing in the WCDoH and the FSDoH, 2001/02-2008/09[a]**



[a] Real terms in 2006/07 prices

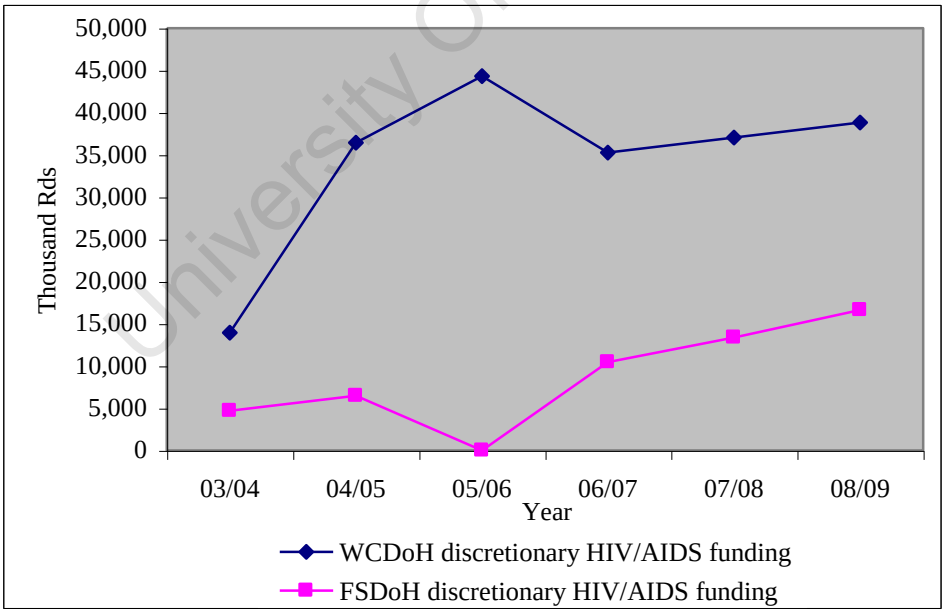
Source: Author based on NT (2002b, 2003b, 2005c, 2006b, 2006i, 2006k); Ndlovu and Daswa (2006); inflation from SSA (2008a) and NT (2008a)

Earmarked funding in the Free State is superior to that in the Western Cape throughout the entire period (2001-2009), and the difference between the two

provinces has increased with time. This suggests that the Free State has been receiving more economic support from the NDoH for HIV/AIDS policies than the Western Cape. In terms of growth rates, the trends of both provinces are similar and resemble the national one. The average annual growth rate for 2001/02-2008/09 of the Western Cape (52.5%) is slightly below the national average (54.3%), and even smaller than that of the Free State (55.1%). These results confirm the stronger weight of the conditional grant in the Free State in funding HIV/AIDS, and lower weight in the Western Cape, as compared to the national average.

The biggest differences between the two provinces can be found, however, in respect of the contribution from own funding. Figure 5.6 below shows the contribution of discretionary funding in both provinces for the period 2003/04-2008/09. Provincial disaggregated data for discretionary funding is not available for the years 2001/02 and 2002/03.

***Figure 5.6*: Real HIV/AIDS discretionary financing in the WCDoH and the FSDoH, 2003/04-2008/09**



[a] Real terms in 2006/07 prices
Source: Author based on NT (2002b, 2003b, 2005c, 2006b, 2006i, 2006k); Ndlovu and Daswa (2006); inflation from SSA (2008a) and NT (2008a)

As illustrated in Figure 5.6, the Western Cape spends substantially more from its own resources on HIV/AIDS than the Free State, reaching as much as R46 million in 2005/06 in real terms. What is more, in that year, the Free State contributed nothing

from its own budgets to HIV/AIDS[50]. In fact, the Free State's own financial contribution to HIV/AIDS has been minimal, only about 10% to total provincial HIV/AIDS expenditure, which is also much lower than the national average. Yet, the Free State's discretionary funding does seem to have increased from 2005/06. This upward trend contrasts with the evolution of discretionary spending in the Western Cape, which declined in 2006/07 and has stabilised since. This suggests that the proportional contribution of discretionary funding may be changing in both provinces, perhaps due to changes in the conditional grant and the capacity to spend earmarked funding.

Thus, the overall picture of high and sustained growth of HIV/AIDS financing in the Western Cape and Free State DoHs mirrors the national evolution in HIV/AIDS expenditures. Clear differences emerge between the mechanisms used in financing HIV/AIDS in each province. Notably, the Free State relies mainly on conditional grants, whereas the Western Cape contributes much more from its own funding. Unfortunately, the lack of provincial discretionary funding data for the years 2001/02 and 2002/03 limits the full understanding of its evolution over time.

5.3 Spending performance of HIV/AIDS expenditure in PDoHs

The relative large magnitude and fast growth of HIV/AIDS expenditure poses a major challenge to spending funds (NT 2003b). It may be more difficult to spend all the money or to spend it effectively when allocations have increased rapidly. Thus, this section looks at underspending and overspending patterns over the period 2000/01-2008/09. This examination, however, faces serious data limitations. As

[50] In 2005/06, the own contribution of the FSDoH to HIV/AIDS is noted as 0, but this is due to limitations of the calculation method. The Free State provincial budget (NT 2006b) notes that provincial HIV/AIDS payments in that year are R86,394,000; however, this figure is smaller than earmarked funding allocated for that year, R100,874,000. This generates a negative number of discretionary funding for this year (minus R14,480,000). As provinces' own budgets cannot show underspending, the most likely interpretation is that it is the result of underspending on the conditional grant, which leads to low levels of total payments. In fact, the Free State provincial budget 2007/08 (NT 2007a) shows that the audited allocation for that year is R108,969,000. Calculating the discretionary funding from this new estimate would result in R8 million allocated by the Free State's own provincial funding, which is significantly higher than the figure estimated in the previous year. This situation provides another example of the limitation of the estimates of discretionary funding in truly reflecting how much provinces are spending on HIV/AIDS from their own budgets.

recognised by the Fiscal and Financial Commission (FFC), "an overall assessment of the actual allocated budget for HIV/AIDS is difficult due to conflicting sets of information in various official data sets" (FFC 2003, p.61) Nevertheless, this section reviews and evaluates the available information, first of conditional grants, then in relation to discretionary funding, and finally in the two provinces studied. However, the resulting figures and their meaning should be interpreted with caution.

A Spending of conditional grants

The spending of HIV/AIDS conditional grants by PDoHs in South Africa has lagged behind the allocations. Provinces had more difficulties in spending conditional grants in the earlier years. During the first year, spending was very poor, as the system had to adapt to the new funding mechanism, and to set up the necessary structures and processes (Hickey et al. 2003 and 2004). Reasons given for this underspending thus include: slow disbursement of the funds to provinces; set-up of management structures; approval of business plans; and bureaucratic requirements inherent in all conditional grants (Hickey et al. 2003). In addition, it is argued that program regulations attached to the conditional grant funds were particularly restrictive in the early years, thus creating bureaucratic hurdles that affected the transfer and spending of funds (NT 2003a; Hickey et al. 2003). Table 5.6 summarises the spending patterns of the HIV/AIDS conditional grant from 2000/01 to 2003/04.

Table 5.6: **Spending of HIV/AIDS conditional grant to DoH, in nominal terms, 2000/01-2003/04[a]**

	2000/01	2001/02	2002/03	2003/04
Allocated (R thousand)	16,819	54,398	210,209	334,000
Spent (R thousand)	10,000	45,095	172,879	320,640
Percentage spent (%)	59.5	82.9	82.2	96

[a] It excludes expenditure on rollover funds from previous years.
Source: Hickey et al. (2004, p.175) for figures 2000/01-2002/03; DoH (2004d in Ndlovu 2005c) and (NT 2003a) for figures 2003/04

Table 5.6 shows that provinces have made enormous strides in spending a larger share of the HIV/AIDS conditional grant, from 59.5% spent in 2000/01 up to 82.9%

in 2001/02. This rate was nearly maintained in 2002/03, even with an almost four-fold increase in the grant during this period, and by 2003/04, it had increased to 96%. It is important to appreciate the substantial improvements in spending capacity that provinces must make in order to improve spending records in a context of continuous sharp increases of funding. Moreover, the figures in Table 5.5 do not account for the spending of rollovers from previous years' budgets. When funds from conditional grants are not fully spent, unspent funds may be rolled over to the next year, thus increasing the amount of funds to spend. For example, National Treasury notes that R10.567 million of HIV/AIDS transfers to NGOs were rolled over from 2002/03 to 2003/04 (NT 2003d). Thus, considering the rollovers, the improvements in spending are even higher, though insufficient.

It is worth noting that underspending on the HIV/AIDS ring-fenced grants to the education and social sectors initially exceeded underspending on the conditional grant to the health sector (Hickey et al. 2004), although it also improved considerably over time (see Appendix 22 for the spending of the three HIV/AIDS conditional grants). In particular, the conditional grant to the DSD had the highest underspending, with a spending record as low as 35.6% in 2000/01. It is argued that the cancellation of this grant in 2005 is an example of how National Treasury takes into account provincial spending records in determining future funding (Hickey et al. 2003). This suggests that the initial high underspending of the HIV/AIDS conditional grant to DoHs during the early years may have been the reason why the new system was introduced for increasing HIV/AIDS expenditure through the targeted increases over the equitable share mechanism.

National Treasury recognised that underspending was a problem in some PDoHs in the early years of the period being studied, and consequently suggested implementing interventions to simplify the procedures of conditional grants in 2002/03 (NT 2003a). Provincial HIV/AIDS coordinators acknowledged that this relaxation of the conditional grant requirements improved spending significantly (Hickey et al. 2004). In addition, National Treasury recommended that the DoH was to implement other interventions to address underspending further (NT 2003a).

Improvements in spending of earmarked HIV/AIDS funding are seen as a normal consequence as programs mature (NT 2004a). It is argued that part of the improvement over the early years is partly due to surmounting the substantial administrative and financial management challenges experienced in the first years of implementing a large national program. The NDoH estimated that in 2003/04 spending stepped up to 96% (DoH 2004d in Ndlovu 2005c).

In recent years, the proportion of funds spent more closely matches the funds allocated. However, a closer examination of the data reveals some inconsistencies, which suggests that there may be hidden and underestimated underspending, such as overspending on conditional grants. For example, R24 million[51] were overspent from the conditional grant in the year 2004/05 (NT 2006l), and R9,028 million was overspent in 2005/06 (Ndlovu and Daswa 2006a). However, this overspending has been interpreted as an error in budgetary reporting, as there should be no overspending of ring-fenced funding but rather higher spending of own provincial funding.

Budgetary practices that may lead to overspending on conditional grants may be (Ndlovu 2005c): (a) reporting spending of rollovers of previous years against funds received exclusively in the current year; (b) reporting spending of conditional grants payments, which are not part of the earmarked funding but of own provincial funding; and (c) budgeting inaccuracies due to under-reporting and time-lags.

The problem with these errors in budgetary practices, which inflate spending of conditional grants, is that they may hide possible underspending of conditional grants. For example, in a hypothetical case where provinces underspent on the conditional grant, this underspending may have been hidden by the computation of higher spending of discretionary funding, mistakenly reported as conditional grant spending. Consequently, the overspending of conditional grants in years 2004/05 and 2005/06 suggests that the spending of the conditional grant was being overestimated in those years due to budgetary errors. Therefore, the overspending of conditional

[51] Including the availability of R13 million of rollovers (NT 2006b). Ndlovu and Daswa (2006a, p.19) estimate the overspending for this year to be R11.5 million without rollovers.

grant figures as an indicator of the capacity to spend ring-fenced funding should be regarded with caution.

Another approach to reveal spending records would be to disaggregate them by provincial distribution. Aggregated national data may in fact hide underspending of particular provinces. This is particularly important in the case of South Africa, given the very different health system capacities across provinces. In this regard, information about the Western Cape and the Free State is provided elsewhere in this section. Equally, it would be very valuable to have spending data disaggregated by area of intervention, in particular in relation to the ART component of the Comprehensive Plan. This may hide significant differences in spending performance, given the clearly defined areas of expenditure of the conditional grant. This information would be especially crucial in monitoring the HIV/AIDS treatment component of the Comprehensive Plan. Unfortunately, data limitations at the national level preclude such analysis.

B Spending of discretionary expenditure

As explained elsewhere, discretionary expenditure is identified as funds spent on HIV/AIDS related activities, which are not paid for from conditional grants. Consequently, this calculation equates discretionary spending with discretionary expenditure. In other words, all provincial funds allocated to HIV/AIDS are actually spent as such. Therefore, it is not possible to have unspent discretionary allocations in budgetary terms. Further, unlike conditional grants, provincial discretionary budgets do not have rollovers; funding can be shifted from one area to another, and if not spent, it becomes part of the next year's overall budget.

Yet, underspending of equitable shares can be an issue. The fact that budgetary reporting does not reflect underspending of equitable shares does not imply that this mechanism is free from underspending problems. For example, it may be that a province intends to spend an amount of its own funding on HIV/AIDS-related activities, but that during the course of the year it fails to do so, or that funding is shifted to other priorities. Although these cases would not be accounted for as underspending in the budget, they do reflect spending problems, and they could even

be considered as a failure to spend. Consequently, the insufficiency of budgets to identify underspending of discretionary funding necessitates further work tracking the spending of equitable share allocations towards HIV/AIDS.

Spending of HIV/AIDS targeted increments over the equitable share mechanism

A major concern is the extent to which the targeted increments on the equitable share made for HIV/AIDS trickle down to the PDoHs, and are actually spent on HIV/AIDS-related activities, either directly or indirectly. The comparison of the top-sliced HIV/AIDS allocations to equitable share with the discretionary HIV/AIDS funds spent reveals a great mismatch, as reflected in Table 5.7. The discretionary spending of PDoHs is significantly inferior to the HIV/AIDS allocations sent to the provinces through the equitable share mechanism.

Table 5.7: **Comparison of provincial discretionary HIV/AIDS expenditure and targeted allocations for HIV/AIDS added to equitable shares, nominal terms, 2002/03-2007/08**

	02/03	03/04	04/05	05/06	06/07	07/08
Discretionary spending PDoH (R million)	107	280	366	547	874	1,088
Additions on equitable share (R million)	0	500	1,000	1,500	1,590	1,670

Source: Author's calculations from NT (2002b, 2004a, 2005a, 2006a-2006i, 2006k, 2006l) for discretionary allocations, and NT (2002a) and Mark Blecher (National Treasury, personal correspondence April 2008) for additions on the equitable share mechanism

As shown in Table 5.7, actual discretionary allocations have been significantly smaller than the targeted additions between 2003/04-2008/09. This mismatch could be caused by several reasons: (a) the funding does not reach the PDoH, because it goes to HIV/AIDS interventions by other provincial departments, such as DoE or DSD; (b) PDoHs spend these funds on interventions not journalised as HIV/AIDS because they deal with the overall health system, benefiting HIV/AIDS interventions indirectly; or (c) the funding is spent on other areas not related to HIV/AIDS, whether by the DoH or by other provincial departments.

Given that the targeted increments were mandated to strengthen program management and to prepare the ground for the HIV/AIDS treatment and care response (NT 2003b), it is expected that most of this funding, if not all, would go to the PDoHs. Thus, the first reason does not seem to justify the mismatches. More relevant seem to be the other two explanations.

A study by IDASA notes that provinces like KwaZulu-Natal, Gauteng and the Eastern Cape, which set aside special funds for HIV/AIDS from these targeted increments, do partly reflect such allocations in their official budgets (Hickey and Ndlovu 2005). However, for other provinces, where these increments are not reflected in the budgets, it is difficult to know whether they were spent on HIV/AIDS-related activities or not. The effectiveness of this mechanism is undermined by the lack of a clear legal way of enforcing these allocations. Hence, it is not possible to assess spending performance on even the targeted HIV/AIDS increments on the equitable share mechanism.

In fact, the FFC recognises that these targeted increments, because they are not ring-fenced, may not be used to cover direct HIV/AIDS costs (FFC 2003). This concern is supported by FFC investigations in key provinces, which did not find any indication that this funding was employed directly in HIV/AIDS interventions (FFC 2003). Consequently, the FFC recommended the revision of these increases to ascertain their efficacy (FFC 2003). A review of subsequent FFC submissions did not, however, provide any further reference to proposed changes to this HIV/AIDS funding mechanism, but only to conditional grants.

Unfortunately, the disaggregation of provincial budgets as reported to National Treasury is not sufficient to identify the targeted increments for HIV/AIDS added to the equitable share allocations across provinces (Hickey and Ndlovu 2005), and the information of how much of the targeted increments each province had spent on HIV/AIDS is not available through budget reports.

C Spending of HIV/AIDS budgets in Western Cape and Free State DoHs

This section discusses the spending patterns of HIV/AIDS funding in the two provinces studied. It is based mainly on provincial documentation from PDoHs and Treasuries compiled during the fieldwork visits. Table 5.8 below presents the spending of the total HIV/AIDS funding in PDoHs in the two provinces, as reported by their DoHs.

Table 5.8: **Percentage of HIV/AIDS budget spent in the Western Cape and Free State DoHs, 2002/03-2005/06**

	2002/03	**2003/4**	**2004/05**	**2005/06**
Western Cape (%)	57.5	70.3	104.8	100[a]
Free State (%)		100	98.7	99.6

[a] Target
Source: WCDoH (2004; 2006d); FSDoH (2004b; 2005b)

Table 5.8 reflects the spending of total provincial expenditure relating to HIV/AIDS, as reported in PDoHs' annual reports. The spending of the WCDoH started from a very low rate (57.5% in 2002/03) and improved over time to exceed 100% in 2004/05. Conversely, the spending of the FSDoH approximates 100% for the three years reported. These data reported by the respective PDoHs would suggest that the province of the Western Cape initially had problems to spend their funding, whereas the Free State did not have any significant difficulties in spending for the years reported.

Nevertheless, other sources indicate that the Free State was in fact faring less well in terms of spending performance than indicated by the above figures. For instance, internal expenditure documentation gathered during fieldwork at the FSDoH identifies underspending trends in particular districts (FSDoH meeting December 2006). It is noted that problems persist for particular interventions, such as home based care, despite the fact that these problems had been identified previously. In addition, Blecher and Harrison (2006) state that, in 2006/07, the Free State was the only province receiving health allocations below the initially budgeted amounts. This is said to be a consequence of its low spending on the infrastructure grant,

which led to the reallocation of expenditure towards other provinces (Blecher and Harrison 2006).

There seems to be, however, conflicting information from different sources. The conditional grant spending data received from the Free State Treasury during the field interviews does not coincide with the FSDoH data. For example, for 2004/05, the FSDoH points at 98.7% of underspending (FSDoH 2004b), whereas the Free State Treasury states that there was overspending of 131.6% (Free State Treasury meeting March 2007). These differences illustrate the complications of identifying and tracking spending, even for the earmarked funding.

5.4 Comparison of conditional grants vs. equitable shares mechanisms

This chapter has provided evidence that ring-fenced allocations are the preferred financial mechanism to fund HIV/AIDS within PDoHs despite the underspending records of conditional grants in initial years. However, the proportional contribution of equitable share funding has increased over time. Moreover, this chapter has revealed substantial differences in the use of both mechanisms between the two provinces studied, with the Free State using conditional grants more, and the Western Cape contributing significantly from its own resources. This difference suggests that the equilibrium in the mix of financial instruments used depends on the specific characteristics of each province, whether financial management capacity, priority of HIV/AIDS within the DoH, and others. Both mechanisms have their strengths and limitations in funding the government's response to HIV/AIDS, and they are thus compared in this section.

Conditional grants provide more funding for the Comprehensive Plan than equitable shares. This is because ring-fenced allocations are believed to be better mechanisms for ensuring provincial spending in critical areas (NT 2002b; FFC 2006). Thus, the conditional grant may have been chosen for funding HIV/AIDS, given the importance and magnitude of the HIV/AIDS issue as a priority intervention for government. In addition, earmarked funding facilitates identifying, monitoring and

tracking expenditure and spending, even by program areas, and provides regular quarterly provincial reporting to NDoH. More specifically, the HIV/AIDS grant is categorised as a "special purpose grant"[52] (NT 2002b, p.53), which is said to be "an option of last resort, considered only if a national department demonstrates that the equitable share mechanism has failed to get provinces to budget for specific priorities" (NT 2002b, p.53). Although this is the intention, another issue is whether earmarking funding has actually achieved the goal of prioritising provincial spending on HIV/AIDS. In addition, it is argued that the HIV/AIDS grant is needed for a more appropriate distribution of resources, as the distribution of equitable shares often differs from the distribution of the burden of the epidemic (NT 2003a).

The downside of conditional grants is that earmarked funding is only appropriate for specific aspects of HIV/AIDS-related spending, such as, for example, PMTCT and home based care (NT 2003a). It is not appropriate for other aspects of HIV/AIDS interventions, which are more difficult to isolate from overall health expenditure, such as treatment of opportunistic infections and hospitalisation costs. For these aspects of HIV/AIDS funding, the equitable share mechanism is believed to be more effective (NT 2003a). In addition, the conditional grant does not allow for spending on areas outside the determined ones, thus limiting its usefulness as a funding mechanism to improve overall aspects of the health system that are important to the delivery of HIV/AIDS programs.

On top of that, special purpose grants impose particularly strict conditions, and sanctions when they are not met (NT 2002b). The high reporting conditions require substantial time and investment in preparing reports, adding an extra load of tasks on managers and financial officers. When these requirements were relaxed, spending improved substantially, although underspending still remained an issue. National Treasury has recognised that problems of underspending and non-transfers remain in the conditional grant system (not just for HIV/AIDS), despite earlier reforms and improvements (NT 2002b).

[52] The other type of conditional grant is the block grant. Block grants "provide recurrent funding for assigned or specialised function and have limited conditionalities" (NT 2002b, p.53).

The equitable share mechanism, however, covers expenditure for any need in the health system, and thus is more suitable for strengthening the health system, and in particular to fill funding gaps left by conditional grants. In fact, if all interventions of the DoH, which benefit HIV/AIDS services either directly or indirectly are considered, discretionary allocations may contribute more than conditional funding to overall HIV/AIDS-related expenditure. Furthermore, the use of discretionary funding is critical in fiscal decentralisation and the distribution of service delivery responsibilities as per the South African Constitution, as it allows provinces to make spending decisions.

On the negative side, equitable share funding has less power to ensure spending on the desired national priorities, which may differ at local, provincial and national levels. Especially in traditionally disadvantaged provinces with weaker health services, the competing needs of other aspects of health care may leave discretionary funding as a less appropriate mechanism to fund and ensure spending on the Comprehensive Plan. This is aggravated by the less specific financial reporting required of discretionary funding, which makes it more difficult to monitor expenditure by area of intervention and actual spending, and hence to monitor spending performance.

Overall, the FFC recommends that funding for all HIV/AIDS programs should be made available through earmarked funding in order to ensure sufficient focus and resources (FFC 2003 and 2006). At the same time, the FFC also recommends that the equitable share mechanism should be maintained and boosted to reinforce province's own expenditure on HIV/AIDS (FFC in NT 2003a). In addition, the FFC contemplates considering alternative systems, or re-modelling existing ones, such as a more open ended conditional grant (FFC 2003).

In summary, a complex financial strategy for dealing with HIV/AIDS is needed, given the complex nature and impact of the epidemic. A coordinated financing framework is needed to implement the Comprehensive Plan. While conditional grants remain an important tool for driving specific earmarked programs, there nevertheless has been increasing support for equitable share financing. Whereas HIV/AIDS should be prioritised, all health aspects are interrelated, and it is

important to avoid artificial distinctions between HIV/AIDS and other health areas. The most appropriate mechanism, or combination of mechanisms, must be identified to facilitate and ensure program implementation.

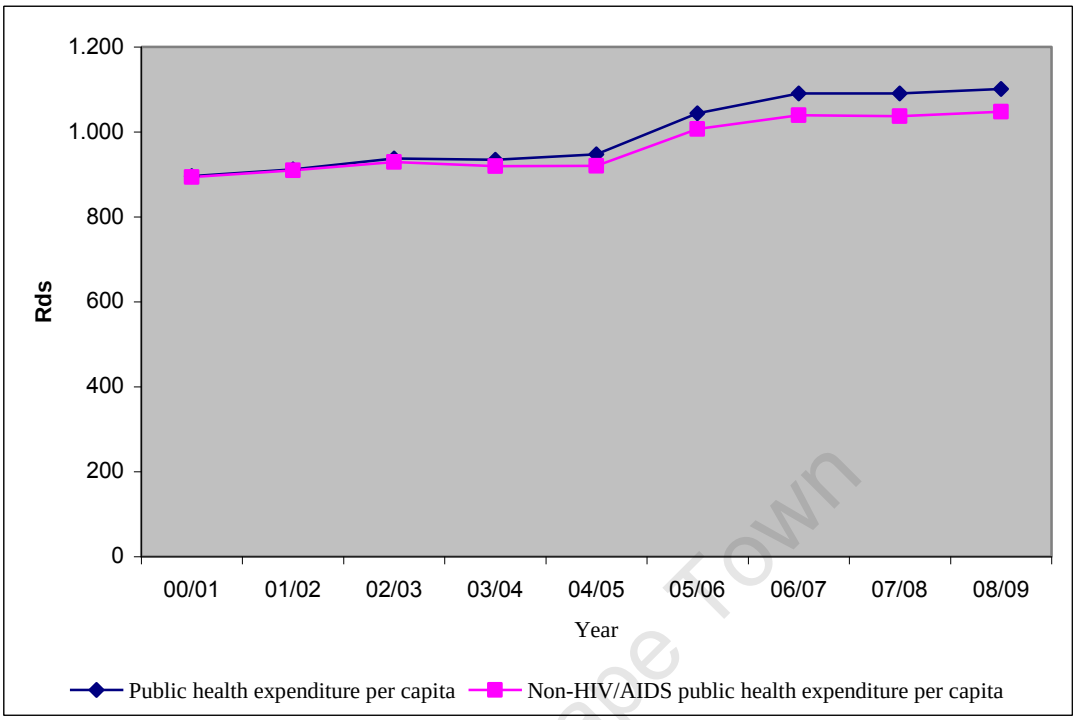
5.5 Health system strengthening, efficiency, equity and sustainability

This section looks at the other crucial aspects of absorptive capacity of HIV/AIDS expenditure as defined in the conceptual framework, from a budgetary perspective. It studies the extent to which the increasing HIV/AIDS financing presented earlier in the chapter strengthens the overall health system and enhances its equity, efficiency and sustainability, or the opposite. Given the limitations of data availability, this section is more of a reflection on the major issues to be considered rather than a presentation of evidence. This section highlights the particular issues confronted by South Africa and the limitations of a budgetary analysis in addressing them, in order to lay the groundwork and formulate the major questions guiding the actual fieldwork in this study.

A Strengthening of health systems

The implementation of the Comprehensive Plan impacts on the health system in many ways. From a budgetary perspective, it is important to contextualise increases of HIV/AIDS funding within the overall health budget, to provide a better estimate of how significant these increases are in the context of overall health expenditure. It is also important to examine whether there is a crowding-out effect of HIV/AIDS expenditure on other non-HIV/AIDS-related expenditure. This is especially important, as spending on the national HIV and AIDS sub-program has become larger than on other health programs, such as Maternal, Child and Women's Health and Communicable Diseases (Ndlovu and Daswa 2006).

Figure 5.7: Real increases in provincial public health expenditure per capita, with and without HIV/AIDS expenditure [a]



[a] Public expenditure is given for the financial year, but population figures are shown for the natural year

Source: Author's calculations from NT (2002b, 2003b, 2004a, 2006a-2006i, 2006l) and Blecher and Harrison (2006); population from SSA; inflation from NT (2008) and SSA (2008a)

Figure 5.7 depicts increases in overall health expenditure per capita, both with and without HIV/AIDS funding. Although differences were small at the beginning of the period, they increased with time. Provincial health expenditure per capita is set to increase in real terms at an average of 2.62% per year for the period 2000/01-2008/09. However, when subtracting HIV/AIDS expenditure per capita from overall health expenditure per capita, the total growth goes down to 2.01% only, which is a substantial decline. When excluding HIV/AIDS-specific expenditure from provincial health budgets, health expenditures do continue to grow in per capita terms albeit at a lower rate. This would suggest the growing priority of HIV/AIDS over other health programs. Furthermore, the average annual growth rate of HIV/AIDS expenditure per capita in PDoHs during 2000/01-2008/09 was 48.5%, considerably higher than the annual growth rate of public health expenditure per capita of 2.62% for the same period.

Looking at health expenditure nationally, the share of the health sector in total government expenditure has decreased from 11.5% in 2000/01 to 10.9% in 2007/08 (McIntyre and Thiede 2008). Nonetheless, it is argued that this decline is the result of strong growth in social grant expenditure (Blecher and Harrison 2006; Hickey et al. 2003). Thus, there is not sufficient evidence to relate the decreases of the health portion of the national budget to a negative performance of health budgets. Nonetheless, the South African public spending on health is lower than the 15% target committed by the African Heads of State and Government in the Abuja Declaration and Framework for Action on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases (OAU 2001).

Having said that, the question remains of how much more or less the health budget could have grown without the substantial increases in HIV/AIDS budgets. On the one hand, it could be argued that these increases in the PDoH budgets might not have taken place or that they might not have been prioritised if they had not been driven by the HIV/AIDS crisis. On the other hand, the opposite might have been true too, namely that health was high on the government's agenda, and that larger allocations to PDoHs would have materialised even in the absence of increased HIV/AIDS funding; however, this would have benefited other non-HIV/AIDS health areas more directly.

However, even in the hypothetical case where increases in HIV/AIDS expenditure have brought about corresponding decreases in non-HIVAIDS health funding, this situation would not necessarily imply a negative impact on health funding. For example, this situation could arise when HIV/AIDS-services that were previously included under other health budget lines, such as infrastructure upgrading or hiring of nutritionist personnel, were moved to the HIV/AIDS budget line. Thus, it could be that total expenditure has remained the same, and that only its categorisation in the budget has changed.

Furthermore, this analysis refers exclusively to expenditure journalised as HIV/AIDS. Nonetheless, as it has been argued before, isolating HIV/AIDS expenditure from that of health expenditure is an artificial exercise. HIV/AIDS expenditure is likely to benefit non-HIV/AIDS health activities directly or indirectly,

and the other way around. Due to this overlapping of HIV/AIDS and health expenditure, this budget analysis cannot offer any definitive answer on the effect that increases in HIV/AIDS expenditure have had on health budgets.

From another perspective, a major component of health expenditure is personnel. In particular, increases in salaries boost expenditure substantially. In this regard, Blecher and Thomas (2004) examine the extent to which health inflation and increasing wages may constitute major drivers of increases in health expenditure. Their analysis shows that, parallel to an average real wage increase of around 28% between 1995/96 and 2003/04, there was a decrease of 19,000 employees in the public health sector. This suggests that increases in public health expenditure need to be interpreted with caution, as it may be incorrect to assume that increasing funding leads to the expansion of programs.

Moreover, this budget analysis leaves out many other crucial aspects in which HIV/AIDS policies may be jeopardising other health areas, such as strategic prioritisation; utilisation of human resources and existing infrastructure. Thus, it is necessary to complement this budget analysis with an exploration of other respects in which HIV/AIDS funding may be strengthening and/or weakening the health system.

B Efficiency

With regard to outputs achieved, a broad assessment of inputs against outputs reveals striking differences between provinces. A comparison of the Western Cape and the Free State reveals substantial differences in the 'value for money' achieved in respect of patients on ART[53].

[53] The number of sites is not compared directly because the Free State's program is organised in terms of three different types of sites, i.e. assessment, treatment, and combined sites, which do not have comparable counterparts in the Western Cape.

Table 5.9: **Western Cape and Free State HIV/AIDS expenditure per patient on ART, 2005 and 2006**

	Western Cape	Free State
Patients on ART 2005 [a]	7,670 [b]	1,165 [c]
HIV/AIDS nominal funding 2004/05 (R thousand)	94,394	75,911
Patients on ART 2006 [d]	16,234 [b]	3,900 [c]
HIV/AIDS nominal funding 2005/06 (R thousand)	126,754	100,874
Expenditure per patient 2005 (R thousand)	12	65
Expenditure per patient 2006 (R thousand)	8	26

[a] By 31 March 2005
[b] Patients on ART
[c] Patients who have started ART (whether they continue on ART or not)
[d] By 31 March 2006
Source: Author based on FSDoH (2005a, 2005b and 2006); WCDoH (2006b, 2006d and 2006e).

As shown in Table 5.9, the Free State spent nearly R65.000 in 2005 to keep one person on ART, whereas the Western Cape spent only one fifth of that amount. Between 2006 and 2005, both provinces reduced their expenditure per patient, which could be taken as positive signs for the cost-efficiency of the program.

For the years 2004/05 and 2005/06, the Western Cape treated around 80% more people than the Free State, spending only 20% more. Whereas in 2006 the Western Cape enrolled around 1,000 new patients per month (WCDoH 2006b), the Free State reached only 600 per month (FSDoH 2006). These differences are reflected in terms of the need covered. As was shown in Chapter 4, by 2006 the Western Cape provided ART to nearly 64% of new AIDS cases, whereas the Free State only covered 12%.

How do we interpret these results in terms of efficiency? The fact that the Western Cape is achieving substantially more than the Free State with nearly the same inputs, does not necessarily imply that the Free State is not using the allocated resources optimally. The different capabilities, capacities and starting bases of both provinces

need to be taken into account. For example, in a more densely populated and urbanised area such as the Western Cape, health care delivery has lower marginal costs given the economies of scale, than in a less urbanised setting such as the Free State. In addition, it is important to bring into the equation the broader strategy of the Comprehensive Plan in terms of strengthening the health system. It is possible, for example, that the Free State is utilising its resources to prepare the ground and build the capacity in order to achieve the results in a progressive fashion.

In relation to technical efficiency, some indicators seem to suggest similarities between certain aspects of the programs in the two provinces. For example, the retention in the ART care index is very similar for both provinces, around 70% in 2006 (WCDoH 2006b and FSDoH 2006).

From another angle, the classic trade-off between equity and efficiency is also reflected in the allocation of HIV/AIDS funding. From an efficiency perspective, expenditure will produce the highest outcomes when invested in better-spending provinces. But from an equity perspective, provinces with the lowest capacities, and thus the greatest difficulties to spend, should be supported in order to build their capacity for delivery. There are indications that the reallocation of HIV/AIDS expenditure from worse-performing provinces towards better performers has taken place in South Africa (NT 2003a). This indicates that there may be a relationship between low spending capacity and low funding allocations, when paradoxically it is precisely these provinces, which require higher investments to build their spending capacity. These reallocations would enhance the national financial performance of that year, but would conversely have a negative impact on the equitable distribution of resources across provinces, thus contradicting the initial goals of the Comprehensive Plan to improve equity and build capacity.

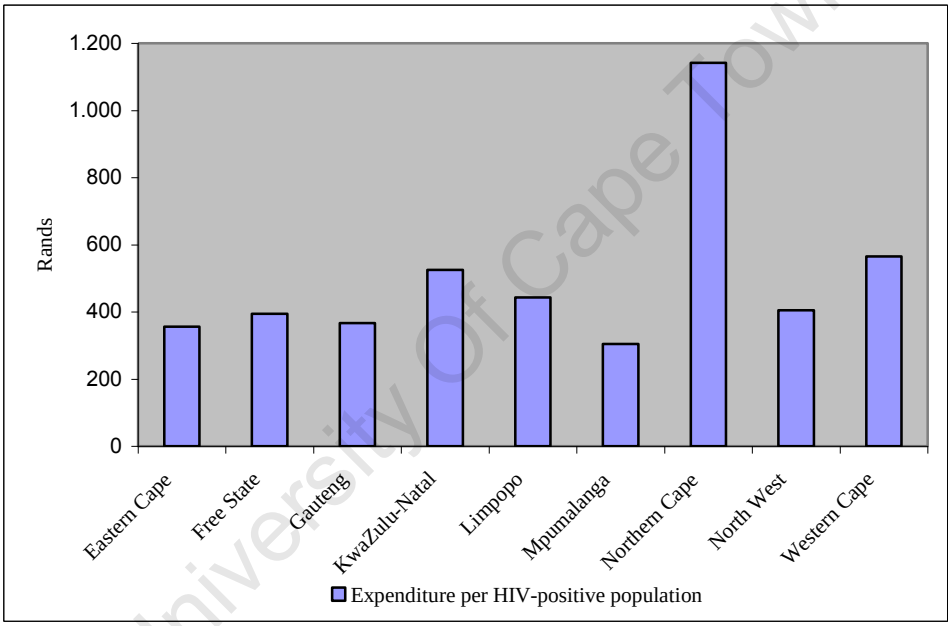
C Equity

Equity is a major principle of the DoH's strategy to deliver health services, and in particular of the Comprehensive Plan. This section discusses two major perspectives relating to equity in HIV/AIDS financing: the horizontal distribution and the public-private divide.

Horizontal distribution

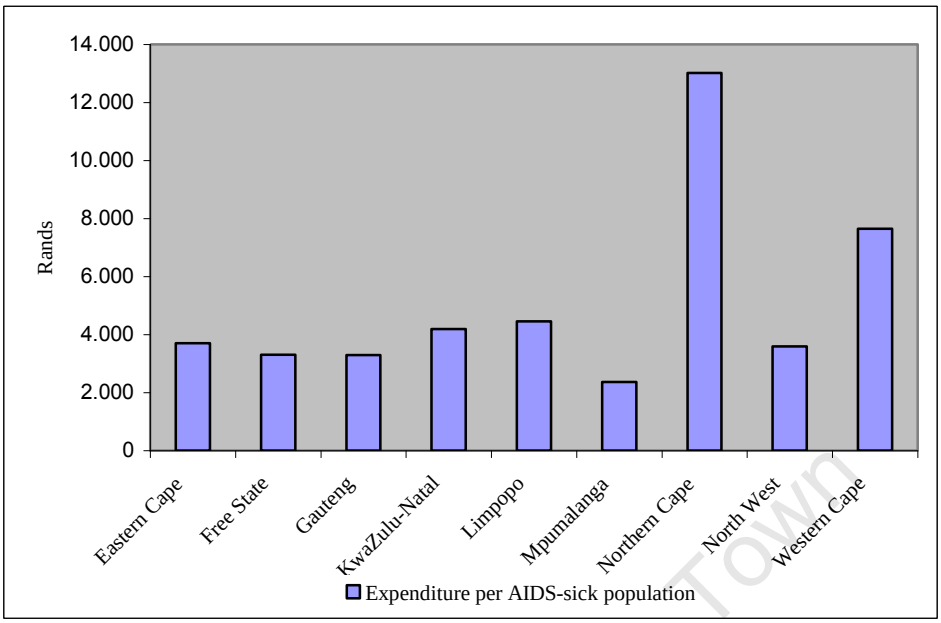
As the majority of government spending occurs at the provincial level, inequities in provincial allocations relative to the burden of the epidemic are at the core of any equity analysis. Figure 5.8 and Figure 5.9 illustrate the provincial distribution of funding per HIV-positive population and per AIDS-sick population respectively. Appendix 23 shows the relevant data used in these figures. .

Figure 5.8: **HIV/AIDS expenditure in PDoHs per HIV-positive population 2006/07[a b]**



[a] HIV positive population figures for the natural year 2006
b Figures for Limpopo include only conditional grants due to data limitation in the provincial budget (NT 2006e)
Source: author based on ASSA (2005a); NT (2006a-2006i, 2006l, 2008a); Ndlovu and Daswa (2006); SAA (2006a)

Figure 5.9: **HIV/AIDS expenditure in PDoHs per AIDS-sick population 2006/07[a b]**



[a] AIDS-sick population figures for the natural year 2006
[b] Figures for Limpopo include only conditional grants due to data limitation in the `provincial budget (NT 2006e)
Source: Author, based on ASSA (2005a); NT (2006a-2006i, 2006l, 2008a); Ndlovu and Daswa (2006); SAA (2006a)

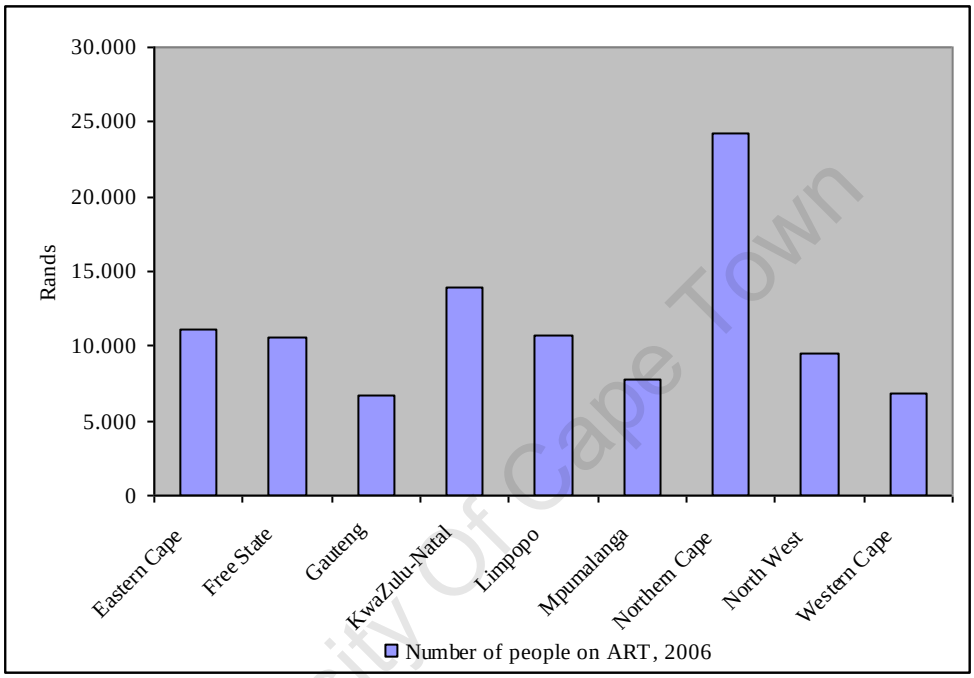
Public allocations to HIV/AIDS and relatively to both HIV-infected population and AIDS-sick population vary significantly across provinces, but with similar patterns for both estimates. The Northern Cape and the Western Cape outpace the other provinces. In fact, the figures for the Northern Cape are remarkably high. One reason for the high health expenditure per capita in this province is that it has by far the smallest population density in the country[55], which raises the average cost of medical services to reach the population (McIntyre and Thiede 2007). If the Northern Cape is excluded, the Western Cape is the best funded province for HIV/AIDS. Mpumalanga is the lowest funded province. The spending of the Western Cape province on the HIV-positive population is nearly double that of Mpumalanga, and more than triple that Mpumalanga's spending per AIDS-sick population, indicating that significant differences exist in the provincial allocation of HIV/AIDS funding.

A different picture is given by the analysis of the expenditure relative to the number of patients on ART, as shown in Figure 5.10 below (full figures in Appendix 23).

[55] The population density of the Northern Cape was 2.3 persons per km^2 in the 2001 census, much lower than in the other provinces (Stats SA 2004).

Relative to ART patients, the Northern Cape is still the province that is spending the most, but it is followed by KwaZulu-Natal and not by the Western Cape, as was the case in respect of expenditure per HIV-population and per AIDS-sick population. In fact, the Western Cape is one of the provinces spending the least per patient on ART, together with Gauteng.

Figure 5.10: **HIV/AIDS expenditure in PDoHs per patients on ART, 2006** [a]



[a] People on ART figures for the natural year 2006
Source: author based on ASSA (2005a); NT (2006a-2006i, 2006l, 2008a); Ndlovu and Daswa (2006); ASSA (2005b)

Another equity consideration is the difference in provinces' capacity to spend allocations. Previous studies suggest that provinces with lower capacities face the greatest difficulties in spending the conditional grants for HIV/AIDS, such as, for example, the Eastern Cape and Mpumalanga (Hickey et al. 2004). In addition, while all provinces have experienced real increments in their budgets between 2001/02 and 2008/09, it is Mpumalanga, the Northern Cape and Limpopo, previously disadvantaged provinces, which have seen the largest increases in HIV/AIDS expenditure in absolute terms, thus intensifying the pressure to spend budgets. In addition, traditionally disadvantaged provinces face difficulties in building up capacity to spend due to the difficulties in attracting and hiring professional personnel, both medical and non-medical. Thus, inter-provincial equity is still an

important concern in relation to HIV/AIDS funding and further work is needed to investigate its nature and implications.

Inequities between private and public health financing

A major source of inequity in health financing in South Africa is the difference between public and private funding. Although 40% of total health care funding in 2005 was public and 60% was private, the public sector nevertheless serves the majority of the population (85%), as compared to only 15% served by the private sector (NT 2006l; SAA 2006a). This means that, in 2005, the public health sector spent approximately R1,300 per person dependent on public health sector services, whereas the private health sector spent around R9,500 per person covered (McIntyre and Thiede 2007). Furthermore, private health sector expenditure has been growing more than public health expenditure since 2000 (NT 2006l), while the number of beneficiaries in the private sector has remained stable or even decreased, as contributions to medical aids have increased significantly (NT 2006l; McIntyre and Thiede 2007). As a result, the gap between the public and private health sectors has been widening in the last decade.

These inequities between the public and private health sectors are at the core of policy concerns. The *South African Health Charter* states that the "most significant challenge facing the South African health system is to address the inefficient and inequitable distribution of resources between the public and private health sectors relative to the population served by each" (DoH 2004e, p.18). In addition to the financial inequalities, disparities between the public and private sector are even greater in relation to health professionals, with 75% of generalist doctors and 84% of pharmacists working in the private sector, and serving not more than 36% of the total population (McIntyre and Thiede 2007).

There are reasons to believe that these inequities also will apply to HIV/AIDS expenditure. The private sector started to provide ART before the public sector. By mid-2006, around 67,600 people were receiving treatment from the private sector, comprised of 55,900 from disease management programs of medical aids and 11,600

from community treatment programs[56] (Stevens et al. 2007). This is a significant number compared to the estimated 180,879 people estimated to have enrolled in the Comprehensive Plan by June 2006 (SACOB 2007).

To summarise, this section has presented a strong basis for concerns around the equitable distribution of HIV/AIDS funding. Budget disaggregation reveals substantial differences across provinces. Moreover, people on medical aid are notably better funded than those who attend public health facilities. These differences in per capita expenditure suggest that South Africans have different chances of being cared for and treated for the disease, depending on the province in which they live. In addition, the large differences in financing and coverage between the public and private sectors remain a major source of inequity in health financing. Although there is no specific data in HIV/AIDS financing in the private sector, given the inequities in health expenditure, and the important role of the private sector in providing ART, there is a strong basis to suspect that equity in HIV/AIDS financing may also be eroded by the existing disparities between these two sectors.

D Sustainability

The sustainability of HIV/AIDS financing is a major concern. It is not only about sustaining funding levels, but most importantly, about maintaining the increases in funding necessary in order to achieve the goals of the Comprehensive Plan. This needs to be achieved in a context of uncertainty about the future costs of the program, which makes financial planning difficult. Future costs could be expected to increase because more complex ARV treatments, which are more expensive, are becoming available. Conversely, costs could decrease because of economics of scale and the wider availability of ARVs.

The Western Cape provides a clear example of the treatment and financial implications of sustaining current treatment levels. In this province, between 7,000 and 10,000 patients died in 2005 without ever accessing ART. The WCDoH emphasises that "in order to keep this number constant or to reduce it, the monthly

[56] Estimates from WHO et al. (2008) are even higher, of 110,000 people receiving ART from the private sector in 2006.

number of new patients enrolled onto ART in the province needs to double over the next five years" (WCDoH 2006b, p.1). Thus, gradual increases in the number of people on ART would not suffice to enhance program achievements. Sustainability in this context implies that, in order to increase significantly the number of people on ART, substantial increases in funding likewise will have to sustain over some time.

From another angle, South Africa is better off than other African countries in that HIV/AIDS policies are funded mainly through domestic resources. This reduces the uncertainty of dependency on foreign funding, which is commonly cited as the first obstacle for financial sustainability. However, the previous chapter argued that it is not clear how much donor funding contributes exactly, and that it may be more than what is recorded in public budgets. Hence, the element of foreign dependency cannot be disregarded as an issue in the sustainability debate, although such dependency is likely to be significantly smaller than for other African countries affected by the epidemic, given the size and strength of the South African economy.

In addition, the Comprehensive Plan has emerged in a context where the sustainability of public health expenditure is not free from concerns either: it is argued that social expenditure expansion over the last decade has been enabled by prosperous economic growth (Blecher and Harrison 2006). However, it is also recognised that the opposite happened in the late 1990s, when public expenditure decreased, driven by macroeconomic and fiscal constraints (Blecher and Harrison 2006; McIntyre and Thiede 2007). Thus, it is still a concern that a downturn in economic prospects may again restrict social expenditure and in particular HIV/AIDS financing.

In addition to securing funding, sustainability applies to non-financial resources, in particular as these relate to the health system. It is important to question what adjustments are necessary in the health system in order to make the Comprehensive Plan consistent with overall health policies and thus sustainable. Critical issues in this regard are, for example, the integration of HIV/AIDS services within the DHS structures, and the future availability of health personnel to keep up with the demands.

5.6 Conclusion

This chapter has presented a picture of rapid and substantial increases in HIV/AIDS funding, for both conditional grants and discretionary funding. Real growth rates were very high, especially in the earlier years, and have become more moderate over time. Further, official budgets report failures to spend HIV/AIDS allocations. Consequently, the sharp increments in HIV/AIDS financing together with the recorded difficulties in spending these funds raise concerns over the capacity of the system to absorb the available funding. The chapter argues that, although spending capacity has improved over time, it remains problematic. However, in the light of shortcomings in available expenditure data and reports, the budget analysis is not an adequate tool for gaining a comprehensive understanding of the capacity of provinces to spend resources. In fact, such an analysis may actually offer a misleading picture when expenditure is recorded inappropriately or partially.

This analysis has also compared the main two funding mechanisms of HIV/AIDS policies. The implementation of the Comprehensive Plan is funded primarily through the conditional grant. Because this mechanism earmarks funding, it seems more appropriate for ensuring spending on key priority areas, such as HIV/AIDS. However, as can be seen from the underspending records of the grant, it might in fact be hindering the spending of funds. In contrast, the equitable share funds allocated for HIV/AIDS are intended to provide provinces with funds to strengthen their health care services generally in order to respond to the added burden created by HIV/AIDS, which thus seems more appropriate for enhancing provincial capacities. Nevertheless, there is uncertainty about how much of the targeted additions on the equitable share mechanism are actually directed towards HIV/AIDS. Consequently, the question of how to strike a balance between the two funding mechanisms remains an open debate.

The ‘quality’ of the funding increments is another matter related to absorptive capacity. The analysis thus looked at the relationship between HIV/AIDS and health financing, and specifically at whether they strengthen or weaken each other. It also provided evidence of striking differences among provinces, in terms of the dedicated

expenditure and the resulting outcomes. Concerns also emerged over the future availability of sufficient funding to respond to the large and growing need for treatment. The evidence presented provides an analytical understanding of the challenges faced in the efficient, equitable and sustainable absorption of public expenditure.

In conclusion, the budget analysis undertaken in this chapter proved insightful but insufficient to determine fully the absorptive capacity of HIV/AIDS financing in South Africa. It leaves open many questions in relation to various crucial factors of the capacity to spend across provinces, and its implications for the overall health system. Consequently, these knowledge gaps were explicitly addressed in the fieldwork, which was conducted as part of this research. Chapters 6 to 8 report on the findings of this fieldwork in order to ascertain the crucial elements of absorptive capacity in the case of South Africa, and in particular for the Western Cape and Free State provinces.

CHAPTER 6 EXPLORING ABSORPTIVE CAPACITY IN SOUTH AFRICA

6.1 Introduction

The following chapters of the thesis present the findings of the in-depth interviews conducted with officials from the NDoH, PDoHs and National and Provincial Treasuries in the Western Cape and Free State, and with individuals from other organisations outside government (including academia, research institutions, and international organisations). Interviews were conducted between May 2006 and April 2007. Interview data were collected in order to fill in the gaps left by the literature review in Chapters 3 and 4, and the gaps in the budgetary analysis in Chapter 5, in particular with regard to the underspending difficulties and the quality of spending in terms of its effect on the overall health system, and its efficiency, equity and sustainability. This exploration of perceptions among key stakeholders aims to provide insight into absorptive capacity issues relating to HIV/AIDS financing in South Africa and the bottlenecks that exist. Most interviewees expressed their appreciation for the research and gave their overall support to the approach on absorptive capacity guiding the research. Most respondents were familiar with the topic, and many emphasised the national relevance and need for such analysis.

The aim of Chapter 6 is to explore the understanding of absorptive capacity and its gravity, in South Africa in general and in the Western Cape and Free State in particular. This chapter also focuses on perceptions regarding progress in the implementation and financing of the ART component of the Comprehensive Plan. Chapter 7 presents participants' perceptions on major bottlenecks and obstacles encountered in scaling up funding for the South African ART program. Chapter 8 reports on the implications for the overall public health system of increasing ART funding, and on related issues of equity, efficiency and sustainability.

Participants had different perspectives on absorptive capacity, thus providing greater insight into the concept. The findings exhibit a wide and diverse understanding of absorptive capacity in South Africa. The majority of respondents agreed that

absorptive capacity was problematic. Achievements of the Comprehensive Plan were considered both as too many and too few, and this contradiction will be explained below. In relation to funding, interviewees agreed that spending had improved over the last years, though it was not clear how well the money had been spent. Clear differences emerged between the provinces. Whilst there was consensus that the Western Cape was ahead in the implementation of the program, perceptions on achievements in the Free State were diverse. Section 6.2 deals with perceptions on the definition of absorptive capacity. Section 6.3 assesses the level of absorptive capacity in South Africa. Section 6.4 presents perceptions regarding progress in the implementation of ART as envisaged in the Comprehensive Plan. Section 6.5 is dedicated to perceptions on the financing side. Lastly, Section 6.6 summarises and concludes this chapter.

6.2 Conceptualising and measuring absorptive capacity

The first parts of the interviews explored the concept of absorptive capacity in the context of public HIV/AIDS financing. Interviewees' responses identified several aspects of the term, which are presented below in Section A. Section B sets out the perceptions around the assessment of absorptive capacity, and Section C is devoted to the process for expanding absorptive capacity.

A Financial spending and beyond

In the first round of interviews at the national level, the first question asked was, "What do you understand by absorptive capacity in the context of HIV/AIDS financing?" The question was phrased openly in order to solicit interviewees' understanding of and approach to the issue of absorptive capacity. The meaning attached to this term in subsequent interviews with provincial stakeholders, which were informed of the definition of absorptive capacity adopted in the research, was therefore grounded in the responses and perspectives obtained from national-level interviews. Provincial respondents were asked whether this definition corresponded to their own understanding of the term. The different descriptions of absorptive

capacity gathered in this way were consistent with and expanded on the concept adopted by this research.

The financial dimension was the first characterisation given of absorptive capacity. Absorptive capacity in this regard referred to the adequate rate or speed of increasing both funding and spending. The core issue was that increases should be implemented gradually, so that the system could utilise additional funds. This relates directly to the ability to spend allocated funding, and thus to historical spending performance.

> From a sense of treasury perspective, the most obvious feature is financial absorptive capacity: at what rate should we speed up funding and what has been the ability to spend the funding that we have allocated, historically. [National Treasury interviewee]

Moreover, there was wide consensus that merely spending money was not a guarantee of absorptive capacity. It may be easy to spend substantial amounts of money quickly, but this did not mean that the country was really absorbing this funding. It was crucial, therefore, to inquire how well the money was being spent and utilised. Several respondents questioned the idea of whether funding could be considered as 'absorbed' when the services provided were not of the desired quality. Therefore, the challenge of studying absorptive capacity also involved studying the *quality* of spending.

> I think it [your definition] is a good definition in the sense that it's wider than the sort of fiscal meaning that most people attach to absorptive capacity, which is important. We need to go beyond saying we spent all the money, we spent only 80% of the money to really assess how well we have spent the money. [Academia interviewee]

Two interconnected elements of absorptive capacity emerged: spending and program implementation. This distinction was useful in discerning the complexity of the concept. Absorptive capacity was not only about financial spending, but related also to the whole range of issues around policy implementation and program management, which determined the use of funds; if the program was not being implemented, funding could not be spent. Ultimately, absorption meant the translation of financial resources into service delivery on the ground. In this way, it related to the processes, which transform inputs into outputs

> Oh no, definitely it's an issue. Financial resources seem to be available and yet the outcomes we see in different parts of the country are very different. Definitely if you just look at it in terms of inputs and outputs, there's a big box in the middle where things are not being translated into processes and processes aren't happening. So if absorptive capacity is about the processes of change from input to output then the variation between. [Research institution interviewee]

Moreover, it was more than money that needed to be absorbed; absorptive capacity related to *all* resources, which needed to be increased, such as human resources.

B Assessing absorptive capacity

Directly or indirectly, many participants pointed to financial disbursement rates of implementing agencies as the first indicator in assessing absorptive capacity. A respondent challenged this spending indicator, using the example of PEPFAR funding in Africa: although PEPFAR disbursement rates often reached 100% of the budget, this funding was disbursed mostly to American agencies, and it seemed that no follow-up was done on how much those agencies themselves spent. Therefore, the question remained open of how much was actually being spent on delivering services, and how much was 'lost' in the middle.

Spending patterns relate not only to how much was spent, but also to the timing of the spending. Some Treasury and outside government interviewees pointed out, for instance, that spending often increased sharply from February to March, just before the end of the financial year. They believed that this was related in part to deadlines for payments and tender processes. But mostly, it was linked to bad financial management. It was called the 'March spike', and was used as an indicator for efficiency of spending. A benchmark of 12% was considered at the provincial level; thus, if a department spent more than 12% of its budget in March, it was considered to be 'spiking'.

Financial spending on HIV/AIDS was considered relatively easy to measure, especially for conditional grants. As explained elsewhere, non-conditional spending was believed to be more difficult to monitor. For instance, it was not possible to calculate how much of hospitals' funding was dedicated to HIV-infected individuals,

as most patients did not know their status. Responses also converged on the finding that, although the non-financial side of absorptive capacity was more difficult to assess, it was as important as, for instance, the capacity of program officers to manage larger programs.

During the in-depth interviews, time was spent discussing how to measure the 'right' speed for increasing funding. This assessment was important for the expenditure allocations made by Treasury, as well as for the budget proposals made by DoH to Treasury, both at national and provincial levels. Respondents agreed that absorptive capacity was something which needed to be increased gradually over time and that there was thus a temporal and dynamic component to it, but that it was difficult to estimate what rate of increase would be appropriate. Responses to this question tended to be vague and diverse across participants, even for respondents within the same government department. This indicated that there was no agreement or model to follow on how to plan ahead and monitor the speed of funding increases according to the existing absorptive capacity to utilise such funding.

Inputs from the Provincial Treasuries and PDoHs coincided, however, in that their assessment of how much more funding provincial departments could absorb was more a managerial or discretionary one rather than a technical assessment. Some participants from the WCDoH argued that there were no tools to measure absorptive capacity: managers took decisions on their capacity to spend additional resources based on their knowledge of the existing resources, their use, and the functioning of the program. In practice, such decisions were said to be based on a 'gut feeling', in that managers allegedly acted on an intuitive feeling or understanding of what the absorptive capacity was, based on some basic numbers.

Other respondents from Provincial Treasury reported on the criteria used to assess absorptive capacity in distributing extra HIV/AIDS allocations of equitable shares above the MTEF baselines across provincial departments[57]. This decision was based on a combination of criteria, including:

[57] It was noted that the budget process was organised around the MTEF, which was a three year framework, with the baselines set. However, these baselines were revised each year for possible extra funding, that is, above and beyond the baselines. These additional allocations were discussed and

- Consistency with the national priorities;
- Consistency with the provincial strategy;
- Spending capacity through past spending performance;
- Possibility of financing by shifting funds or reprioritising within the baseline;
- Overall performance of the department.

Thus, Provincial Treasury criteria balanced financial spending with policy priorities and overall performance. Consequently, it did not follow a scientific formula, but rather a holistic evaluation of the program itself and of the potential of the department for implementing it appropriately. The criterion of 'overall performance of the department' depended on Provincial Treasury's perception of the overall competence of the particular department. This assessment involved several (somewhat subjective) elements, including: financial – appropriate spending of funds; overall strategic direction – whether it followed a good guiding plan; leadership – trust in the leaders of the program; and compliance with reporting guidelines to Provincial and National Treasury.

This suggested that absorptive capacity was actually assessed in the provincial allocation of resources, though it was not measured in exact, quantitative terms. The closest proxy to a direct, quantitative measure was past spending performance. Yet, spending performance was a necessary but insufficient indicator. Consequently, the spending pattern was placed in the context of the policy plans and the overall credibility of the relevant department.

C Expanding absorptive capacity

Interviews stressed that the core of the matter in relation to absorptive capacity of new HIV/AIDS funding was whether the new money was used for building capacity generally (e.g. for overall public health policies) rather than capacitating only a very specific intervention (e.g. ART). Thus, funding needed to be invested in a way that

negotiated afresh each year. For their allocation, additional policy proposals were requested from the provincial departments.

both met the purpose of the particular objective for which it was mobilised, and that contributed to a more general strengthening of the health system. This support to the broader health system would permit expanding the capacity for scaling up a specific program. This issue will be explored in more detail in Chapter 9.

Some interviewees perceived the development of absorptive capacity as a process of setting up structures. Mobilising capacity to absorb more funds involved creating the necessary structures to receive, manage and utilise future funding. Provincial governments in South Africa, who are responsible for health service delivery, were the ones responsible for putting in place the mechanisms to utilise this increasing funding.

The gradual process of absorbing funds was understood by some as a progression of two phases. The first stage consisted of building the capacity for service delivery, and it could have been monitored by means of process indicators, such as the number of people trained and the existence of procurement and laboratory systems. In the second stage, when services would be functioning, output indicators such as, for example, the number of people enrolled in the program, would be more relevant. It was in the first stages of building capacity for service delivery that spending would necessarily be slow, as, for example, in building infrastructure or recruiting and training personnel. This gradual approach to absorptive capacity questioned the practice of focusing on patient targets rather than on process indicators to monitor ART progress of the Comprehensive Plan during the early stages. Still, the question remains how long the first stage would last.

6.3 Characterisation of absorptive capacity in South Africa

This section presents the perceived descriptions and assessments of absorptive capacity in South Africa, the Western Cape and the Free State, as shared by respondents.

A Absorptive capacity at the national level

This section describes key features of absorptive capacity at the national level, namely: limited absorptive capacity is a problem; absorptive capacity has improved; new forms of capacity for service delivery have emerged; and there are marked inequalities in absorptive capacity.

Limited absorptive capacity is an issue

The research revealed a consensus that absorptive capacity was a problem in South Africa. Some respondents emphasised that it was a major problem throughout the country, whilst others acknowledged it merely as one of many concerns.

> Oh no definitely it's an issue. As you said, I mean, there is - financial resources seem to be available and yet the outcomes we see in different parts of the country are very different. [Research institution interviewee]

Low spending rates of the conditional grant were noted as the first symptom of a lack of absorptive capacity. Moreover, the gap between the resources available and the results achieved was interpreted as another sign of the inability of the system to benefit from funding increases.

> It's of course a concern. Because if you talk to people in the country, if you talk to people in National Treasury, they will tell you that for HIV we've given the department a lot of money. [NDoH interviewee]

Considering that even greater funding will be needed in the future, many respondents believed that absorptive capacity would continue being a concern. Ironically, some suggested that, in the future, absorptive capacity might not be such a problem after all, because funding would not increase as much in future years, and would therefore flow less "freely".

Interviewees were asked whether South Africa was still utilising existing spare capacity in service delivery for implementing the Comprehensive Plan and, if so, how long it would be until the ceiling of that capacity would be reached. Many respondents expressed concerns that South Africa might soon hit a ceiling in service

delivery capacity. During research across treatment facilities, a participant asserted: "there's definitely a limited ceiling, and people are reaching it quite quickly" [Research institution interviewee]. Consequently, appointing or using other service providers was crucial for expanding services and coping with the increasing demand. In particular, many respondents identified human resources as the area where the ceiling for service delivery would be reached first.

Participants were also asked whether limitations to absorptive capacity were greater at national or provincial level. Respondents agreed that, because provinces were responsible for the implementation of programs, they were the ones experiencing the actual bottlenecks.

> I think it must be provincial and local because money is not spent at national level – you know; in the sense that there is a big problem at national level in terms of low capacity but the absorptive capacity, if you like, is that at the provincial and district level because that's where the money is going to. [Research institution interviewee]

The role of the NDoH, however, was debated. While some interviewees at the NDoH argued that absorptive capacity limitations did not concern the NDoH, as it transferred resources to provinces, participants from the PDoHs and from other organisations suggested that many of the obstacles experienced by provinces were in fact caused by a lack of capacity on the part of NDoH to manage and provide guidance on crucial aspects of the financing and implementation of the Comprehensive Plan.

More broadly, there was a widespread recognition that the absorptive capacity in South Africa was good overall.

> We do have capacity, we are the only country which has capacity. Nevertheless, there are issues in spending the funds, because they do have challenges. Because it is a process and requires time. [NDoH interviewe]

Especially in comparison with other African countries, South Africa was much better off for having certain major advantages: (a) stronger health systems plus (b) domestic financing and strong financial mechanisms. In addition, South Africa enjoyed a massive capacity for service delivery in the private health sector, both

among for-profit and not-for-profit organisations. Nonetheless, some respondents argued that even with those advantages, South Africa had achieved poorer results in terms of ART than similarly affected neighbouring countries like Botswana, and interpreted this as a result of the inability to benefit from the existing resources, and thus as proof of unsatisfactory absorptive capacity.

Absorptive capacity is dynamic and improving

There was a recognition that, parallel to funding increases, the system had been working towards absorbing and utilising those additional funds, thus resulting in improvements in absorptive capacity in the country. There was a general feeling that spending rates had improved substantially, to the extent that overspending had been recorded in the Western Cape during 2006/07 and was expected in the Free State in 2007/08. As expressed by members of the NDoH:

> There's been quite a dramatic improvement, because in the past we used to have quite huge underspending ... but now, during the last financial year, most grants, the spending is above 95%, ... so it is no longer such a problem, although for some provinces there is still underspending. [NDoH interviewee]

Improvements in financial spending were interpreted by most as a sign that absorptive capacity was improving. Nevertheless, many warned that improvements in spending rates did not necessarily translate into improvements in absorptive capacity, arguing that spending was not a sufficient indicator of absorptive capacity.

> Quite often the money is spent in the last three weeks of the financial year and I get invited to hotels and I get flown around the country ... managers are getting smarter and smarter and realising that one of the ways in which they're judged is money spent, so they will start to plan how they spend their money. [Research institution interviewee]

Furthermore, a member of NDoH warned that underspending might be under-reported due to accounting practices, as provinces learned how the system worked. For example, sometimes health expenditure that is only partly related to HIV/AIDS was debited against the HIV/AIDS grant, reflecting HIV/AIDS expenditure when this was not really the case. Thus, past improvements in financial management capacities mean both good and bad news: good news, if financial officers make

better use of the funding for the specified objectives, but also potentially bad news if they know how to 'play around' with funding so as to be able to spend it in other areas that are only marginally related to HIV/AIDS.

Consequently, respondents questioned whether increasing spending rates in fact reflected adequate spending. Interviewees pointed out the need to examine funding jointly with outputs and processes, in order to understand the effects of the financial injections in term of results and spillovers. Many participants complained that not enough was known about the provincial implementation of the Comprehensive Plan, which is crucial for understanding absorptive capacity. For instance, some Treasury members noted that it was very difficult to take budget decisions without knowing exactly how many people were already on treatment. In view of these findings, Section 6.3 will present the participants' perceptions and information around the progress on the implementation of the Comprehensive Plan.

Furthermore, a major challenge was to spend optimally and in the right way. Participants raised concerns over whether the country was absorbing the funds properly in terms of providing the service, strengthening the system, and ensuring efficiency, equity and sustainability. In the face of these uncertainties, it was suggested that the increasing and high spending rates achieved may ultimately have been counterproductive. This uncertainty was perceived as a sign of the unresolved questions around absorptive capacity in the country. Chapter 8 will explore the wider implications of scaling up funding for ART for the overall health system and the implications for the principles of efficiency, equity and sustainability.

> So they are spending more and more money, but it's sort of a black box as to whether that spending is equitable, sustainable, whether it's efficient. I think we just don't know. We don't know if the program would be in the longer run more sustainable if we spend less money now ... If we don't know how to spend it well, should we wait? Should we roll over the spending, so that we can make better informed decisions? [Academia interviewee]

Therefore, improvements in absorptive capacity could not be taken for granted, and thus it was imperative to monitor closely progress in strengthening the health financing and service delivery systems. One participant commented with concern that South Africa was not monitoring properly whether the necessary elements were

in place before resources were being transferred: "There's an assumption that slowly things will get better but we're not measuring that in a systematic way" [Research institution interviewee].

Emergence of new forms of capacity for service delivery

On the positive side, the absorptive capacity in the country had been expanded by the emergence of new forms of service delivery capacity to roll out the Comprehensive Plan. This applied in particular to community workers and NGOs, and also to public-private partnership arrangements. The range of emerging actors involved in implementing the Comprehensive Plan varied from lay counsellors to home-based care workers, treatment supporters, or support group facilitators.

> What we have had is the emergence of completely new forms of capacity. One is in contracts and partnerships with non-governmental organisations ... and that has emerged on a large scale. Not unrelated to that is also the emergence of a massive infrastructure of lay community workers. It's a very mixed category. But this represents a new form of capacity that wasn't there; and that's emerged around HIV. [Academia interviewee]

Positive characteristics of these new forms of service delivery capacity were the flexibility and huge potential of outreach in relation to various components of the Comprehensive Plan. However, several concerns were raised with regard to lay counsellors and community workers, which are discussed in Chapter 7.

Inequalities in absorptive capacity

For many respondents the main characterisation of absorptive capacity in South Africa was 'uneven', viz. uneven both between urban and rural areas, as well as within provinces, with high levels of absorptive capacity in big metropolitan areas like Cape Town, and very poor levels in most rural areas and provinces. The provinces of Gauteng, the Western Cape and, in some instances, KwaZulu-Natal were mentioned as doing relatively well, whereas Limpopo, Mpumalanga and the Eastern Cape reportedly faced greater difficulties with regard to absorptive capacity.

> I think it's extremely uneven. There're different provinces that struggle and districts, it's enormously variable. And there're parts of the country ... stuck in very vicious cycles of inability to kind-of benefit from additional resources. [Academia interviewee]

Differences in capacities to use funds were linked to the historical capacities of provinces. These differences showed up, for example, in the capacity to recruit staff rapidly, or the existence of the systems required to introduce and to implement a new program. In addition, comments were made in relation to leadership and management, as crucial "ingredients to success" in implementing the Comprehensive Plan.

> In terms of the characterization, I would say it's different. There would be high absorptive capacity depending on whether you have an urban province, whether you have leadership and management, whether you have the money available, whether you can recruit the staff rapidly, whether you've got the systems in place to implement the programme ... Where you don't have those elements in place, what I would call the key ingredients to success, you are going to find that there are actually problems. But among those what is critical is leadership and management to make sure that you achieve programme objectives. [Research institution interviewee]

Although spending performance had improved nationally, provincial trends differed greatly. Most developed provinces like Gauteng had learnt more quickly how to spend funds and develop modalities to improve expenditure, such as contracting out services to NGOs. Furthermore, it was precisely those provinces that had problems with spending, which also had weaker health systems. Hence, the discussion now looks at provincial stakeholders' perspectives regarding absorptive capacity in the Western Cape and the Free State.

B Absorptive capacity in the Western Cape and the Free State

This section examines absorptive capacity specifically in the provinces of the Western Cape and the Free State.

The Western Cape

There was a clear consensus that absorptive capacity in the Western Cape was high, probably the highest in the country. Although absorptive capacity may have been an issue in the past, this province had in fact overspent on their HIV/AIDS budgets in

2006/07 and previous years, and had exceeded its targets with regard to people on ART. This suggested that the province could use even more funding than what it had actually received in order to deal with more patients. A member of the WCDoH characterised the province as having the ability to mobilise additional resources and to implement the Comprehensive Plan optimally, without distorting core principles underpinning public health policy imperatives.

In relation to the increasing future targets for ART and the consequential required funding increases, absorptive capacity was also characterised as good. In fact, several participants within and outside the province, and within and outside government, argue that the province could treat significantly more patients if it were not for funding limitations imposed by the NDoH, as conditional funding received was below the amount requested. A member of the WCDoH described the problem as follows:

> We have got the right mix of a policy framework and an implementation service design to enable us to have a good absorptive capacity for the next three or four years; (a) in terms of accommodating more patients on treatment, (b) in terms of being able to absorb and utilise the resources funded, and (c) in terms of doing it in a way that it doesn't distort the primary health care platform. It actually strengthens it. [WCDoH interviewee]

The Western Cape was said to be in a very privileged position within the country. The province had the lowest number of HIV/AIDS cases in the country, together with the highest medical staffing rates. Consequently, the province had a significantly higher absorptive capacity than the other provinces. Moreover, the Western Cape was generally an attractive place to live, and its administrative capacity was better than that of other provinces, thus creating a more efficient work environment: "In general, things run like clockwork here" [WCDoH interviewee]. These two factors facilitated staff recruitment in the province. Moreover, most respondents in the province, and several ones outside the province, felt that one of the major factors determining the success of the ART program in the province had been the notably good leadership of the program, as will be further explained in Chapter 7.

Nevertheless, participants also noted that, despite the relative good situation in the province, the implementation of the ART program was not easy, with several remaining obstacles undermining implementation efforts.

The Free State

In the case of the Free State there was no such common understanding across the various respondents with regard to existing absorptive capacity in the province. Some participants at the national and provincial level characterised the Free State as a very 'tricky' province in relation to HIV/AIDS absorptive capacity, meaning that the indications of good spending recorded and some implementation processes may have created a misguided picture of the progress in the program. Several interviewees stated that the Free State went a bit overboard with regard to the standards for upgrading ART facilities, in particular for personnel, resulting in a high spending per output. This led to high spending combined with relatively poor outputs. Consequently, the high spending may have given the (false) impression that absorptive capacity was high, which might not have been the case if the situation had been examined more closely.

This high spending per output ratio was justified by some respondents, in particular within the FSDoH, as necessary in the initial years in order to build a solid foundation in terms of service delivery capacity to run the program. This strong base was achieved mainly by recruiting and training personnel, preparing the necessary infrastructure, and developing an M&E system. In ensuring that these elements were in place, the program began slowly, but soon began to treat increasing numbers of people with ARVs in a more sustainable way. The resultant, strong platform will enable an effective response to the growing demand as case loads increase as expected. This strategy was said to be particularly relevant for large scale programs, such as the Comprehensive Plan.

Some Free State respondents argued that the Free State structure was stretched, in that it was using all its service delivery capacity, and that it would thus take some time to open up new ART sites. Thus, the province may have reached the point

where it needs to make better use of its resources, and to overcome the obstacles that have restricted them from doing so.

6.4 Progress in the implementation of the ART component of the Comprehensive Plan

This section presents perceptions regarding the implementation of the ART program at national level, in the Western Cape and in the Free State. The information on the achievements of the plan – presented in this section – and on the financial trends – presented in Section 6.5 – are vital for characterising the absorptive capacity levels of the country and provinces, as argued earlier in the chapter.

A National implementation progress

Interviews showed a wide recognition that treatment coverage had increased substantially up to 2007, with trends pointing to continued growth. In addition, successful programs often achieved results despite poor resources. Thus, there was an overall acknowledgement of the great efforts made at all levels to make the program work. For some respondents, the core element of success was that the program had moved beyond a few islands of success to more generalised progress on delivery, with the necessary changes in the health system.

> The positive signs are that people are on ARVs, and they're doing well, and they're living longer. It's prolonging their lives. That's the positive sign ... it's starting to move, in spite of everything. [Research institution interviewee]

> I don't feel as negative as some of the critics who are totally dismissive of the programme. To get up to 150,000 people in 18 months is, you know, in some ways good. But it's clearly not as fast as one would want. [National Treasury interviewee]

Participants nonetheless tended to characterise achievements as either 'too little' or 'too much', depending on the issues considered. The implementation was considered as having been too slow and below the targets in relation to current and future needs for treatment. In addition, with respect to the overall service delivery capacity of the country (including the public and private health sectors, and civil society), it was

argued that South Africa had delivered services with both speed and scale below its capacity.

However, in relation to the challenges the country was facing at the time, in particular the large number of people infected, and the potential effect these challenges might have on the health system, the progress appeared to be too fast, and with too much focus on delivering outputs. Many interviewees described the present and future targets of the Comprehensive Plan as "completely unrealistic" and very ambitious, though others resisted the idea of scaling down these targets because of the challenges the country faced.

> The frustrations I think we all have is that it's just not happening fast enough, the number of people living with AIDS and needing treatment is not being reduced as fast as we would like to see it. But maybe we also need to be more realistic about what is possible. [International organisation interviewee]

Various interviewees recognised that, in order to assess progress accurately, it would be necessary to contextualise achievements against the challenges faced in implementing the program. It was acknowledged that, within two years of implementing the Comprehensive Plan, South Africa had become the largest treatment program in the world in terms of the number of people treated, even larger than Brazil's treatment program. Achievements could thus be characterised as very significant in terms of financial and human resources devoted to the Comprehensive Plan, processes started, and even people enrolled in the program.

Respondents across all stakeholders interviewed raised concerns about the low number of people seeking treatment in relation to the existing need. Whereas this had not been a problem in the initial stages of the Comprehensive Plan, because the numbers of patients overwhelmed the capacity of health centres and waiting lists were long, as the program evolved, it became necessary to improve this demand-side. Some participants noted great concern about the insufficient or even non-existent marketing of the government's treatment program, pointing out that substantial work would be needed in this regard.

Although most interviewees assessed progress of the Comprehensive Plan by looking at the number of people on ART, it was also argued that this indicator on its own was not sufficient to evaluate the success of the program. Participants claimed that there was too much focus on the particular ART output indicator to the detriment of other considerations, such as the multiple aspects of the program that go beyond the delivery of ARVs, such as, for example, ensuring that patients understand how the treatment works, which is key for treatment adherence. The indicator of the number of sites distributing ART showed a clearer trend of improvement, even exceeding targets, suggesting that the system was putting in place the necessary means to implement the Comprehensive Plan.

> Maybe there's an overemphasis on that single indicator [number on people on ART], and there isn't a focus on other indicators that will tell you other things about what's happened. So the Treatment Action Campaign is the first to jump up and down and say but we're not meeting the targets. But I think at the same time there may be good reasons for not meeting the targets. Maybe we don't want to meet the targets if it compromises other goals. [Academia interviewee]

Some respondents recommended that, in assessing the results achieved, it should be ensured that the services provided were quality services that were actually accessed by patients. A researcher gave the example that a clinic may technically speaking have provided PMTCT and thus it would have reported that the funding allocated for this purpose had achieved its objectives. However, it was also important to examine the number of people accessing the PMTCT service at the clinic, and the quality of such service.

Putting the national experience into perspective, some interviewees compared achievements made by South Africa with those of other African countries. Botswana, for example, had much higher coverage rates in terms of ART, PMTCT, VCT and even condom access. Yet, South Africa has much more human capital to mobilise around HIV/AIDS because of its stronger public and private sectors, and it has a more vibrant civil society. As a result, it was argued that Botswana had achieved more than South Africa partly because South Africa wanted to do things "too well". Whereas other African countries were effectively delivering VCT under a tree, South Africa wanted to build a specific room for that purpose in order to ensure confidentiality. Yet, the extent to which these high standards and

requirements ultimately made South African services 'better' remained open to debate.

Respondents from different organisations, from researchers to policy-makers, drew attention to the lack of sufficient information on the progress of the Comprehensive Plan, partly due to deficient M&E systems. One of the examples given repeatedly, in particular by participants related to the financing of the programme, was that figures were available nationally for the number of people who had started treatment, but not for the number of people who were currently on treatment. Thus, there was no information about the number of people who had defaulted or had been lost; neither was there information about those who died while on treatment, nor was there sufficient information about side-effects. This uncertainty was identified as a major difficulty for assessing progress, and for planning and budgeting purposes too. Conversely, some NDoH respondents argued that, although such figures were incomplete and different estimates existed, margins between the different figures had been converging over time, and rough treatment estimates were sufficient for strategic planning purposes.

In response to the question of whether the differences in the implementation of the programme reflected overall differences in health systems across provinces, several respondents across the various groups commented that there were two major factors determining these differences: (a) health systems capacity and (b) leadership. Some participants pointed out that the roll-out figures did not follow any kind of predictable urban-rural, poor-rich characterisation, with the missing explanatory factor being leadership.

B Implementation progress in the Western Cape and the Free State

The Western Cape

The Western Cape had already been running pilot ART projects before the Comprehensive Plan was launched, which had produced expertise in this area, both in the province and with regard to the national plan. In addition, it was recognised that most of the HIV/AIDS burden in the province was being borne by the city of

Cape Town, which had a remarkably high availability of staff, and a particularly good capacity to recruit doctors, thus facilitating the high numbers of people on ART in the province.

The province had gradually increased the number of people on treatment. An official of the WCDoH pointed out that the program initially enrolled around 100 patients per month, a figure that had increased to around 1,000 patients per month by April 2006[58]. In relation to future targets, there was optimism that substantially more patients could be accommodated. Universal access to services was seen by many as possible in the near future, provided a continuous expansion of facilities and services.

> We are already enrolling at the moment 1,000 patients a month, and we should in theory increase that to 2,000 patients a month by our calculations over the next five years. I think that to double over the five years is something that's possible. But it needs sustained expansion. [Academia interviewee]

However, it was also noted with concern that there had been a recent levelling off in new enrolments. The expansion of sites and staff employment had been limited or reduced, and consequently new enrolments had reached a plateau or even declined by the time of the research. According to an official from the WCDoH, this was due to a combination of three factors: (a) sites had reached their treatment capacity level: when sites had more than 1,000 patients on treatment, their ability to absorb more patients was limited; (b) poor demand: there were not enough people being tested and coming to the centres; and (c) limitations in human resources and physical infrastructure at some sites. This steadying-off was a reason for concern around the implementation of the Comprehensive Plan.

In addition, several respondents in the Western Cape warned that the program needed to grow every year in order to maintain current achievements. The epidemiology of the epidemic requires continuous expansion of services in order to prevent the treatment gap from growing; maintaining the same number of sites would only lead to increasing the treatment gap. Consequently, concern was expressed over the recent levelling off in enrolments, as it would compromise

[58] This excluded December and January when there were no new enrolments.

achievements realised to date. Importantly, this particular concern was not raised in interviews at the national level or in the Free State.

It is worth noting that the implementation of the Comprehensive Plan in the Western Cape was moving towards a more integrated system of ART delivery within the overall service delivery platform, through a more horizontal approach. This new type of expansion was said to be the main challenge for future years. The expansion re-orientated services towards PHC clinics, using a 'nurse led, doctor supported' policy. This approach had started in the Metro region, and it was expected to expand outside the region after April 2007. The approach involved having more facilities, which would treat fewer patients, but in a more integrated fashion. It was indicated that accreditation criteria so far had not impeded this expansion towards PHC clinics in the Western Cape; all sites applying for accreditation had obtained the necessary accreditation.

The Free State

The Comprehensive Plan in the Free State followed several phases: it moved from the preparation phase (Phase 1), through the establishment phase (Phase 2), to the expansion phase (Phase 3), which is where it was at the time of the interviews (December 2006). In the first year, the Free State sought to establish at least one treatment site[59] per district. The program expanded by establishing at least one treatment site in each municipal area. By December 2006, in the two years of the program, 16 out of the total 20 municipal areas had been covered. It was expected that all 20 municipal areas would be covered by March 2007, which would mean 100% coverage in terms of sites, based on the above mentioned targets.

The provincial implementation of the national plan was described by many, both inside and outside the province, as (a) slow and falling short of targets in terms of patients on treatment, and (b) characterised by problems with underspending. Many respondents argued that with the numerous of resources invested in terms of funding,

[59] As explained in Chapter 4, the Free State followed a unique model of delivery, combining one treatment site (doctor-driven, hospital-based) per two assessment sites (nurse-driven, clinic-based), and joint assessment and treatment sites.

personnel and health structures, several sites were enrolling patients far below their capacity; compared to other areas with similar inputs, outputs were lower.

In explaining the low achievements of people on treatment given the high resources invested, several provincial interviewees within and outside government, pointed to the fact that established ART facilities had the same physical and personnel structure, independent of whether the facility was in an area with a high or low concentration of HIV-positive people. This led to a situation where some facilities were overburdened by treating numerous patients, whereas others functioned below their capacity due to lower demand. This was especially the case in the most rural areas. Furthermore, it was noted that using the same model regardless of patient burden was not corrected until the Phase 4 of the implementation, and thus was subsequently repeated. In designing Phase 4, the FSDoH took the under-utilisation of some sites into consideration, and thus the decision was not to open new sites but instead to strengthen and sustain existing ART facilities. This implied that, in order to expand the numbers of people on ART, the existing sites should take on more new patients.

In the same way, the target of having a service point per district and per sub-district did not take into consideration that districts were not equally burdened in respect of the number of people infected with HIV or requiring treatment. Thus, the initial goal of achieving equity (through all districts having a program facility) may have led in the end to inefficiencies in the distribution of resources. This suggested: (a) the need to examine more closely the geographical location of rural facilities; and (b) the need to re-consider the use of more flexible criteria for the accreditation of sites, in particular the human resources requirements.

In relation to monitoring treatment outcomes, the Free State experience revealed a high mortality rate among people who had enrolled in the program but who were not yet receiving ARVs because (a) they qualified for ART but were on the waiting list, or (b) they did not yet qualify for ART. This evidence suggests that, although a significant number of patients knew their status and had sought care, they were not systematically being cared for by the program. In fact, it was reported that quality of care provided to pre-ARV patients was in practice worse than that provided to ARV

patients. Although pre-ARV patients should have received routine care for HIV, including regular weight monitoring and screening for tuberculosis, often they did not receive these services, with many in fact being lost to the program. Furthermore, it was claimed that the Free State was the only province that was systematically collecting information on mortality among patients enrolled in the program but not yet on ART; it did so by linking ART files to the population register. This evidence suggests that the strong focus of the Comprehensive Plan on increasing the number of people on ART may have been detrimental to other areas of the plan, such as the care for those HIV individuals who did not qualify for or were still waiting for ARV treatment.

6.5 Financing the Comprehensive Plan

This section presents perceptions on the financing of the Comprehensive Plan at national level and in the two provinces studied.

A Financing the Comprehensive Plan at the national level

There was widespread recognition of the fact that HIV/AIDS financing had grown exponentially until recently, especially in the case of HIV/AIDS conditional grants, but also with regard to other public funding, together with donor funding and contributions from the medical schemes.

> I've not come across a clinic which has to such to down because it hasn't had enough funding. And I've not come across the problem that's just said "we haven't been able to open any more clinics because we don't have enough money". [Research institution interviewee]

Interviewees were asked whether they perceived HIV/AIDS and overall health budgets to have grown in parallel. Most respondents emphasised the difficulty of separating out HIV/AIDS expenditure from health expenditure, as both were closely interrelated. A member of National Treasury pointed out that, overall, about 20% of health spending was driven by HIV/AIDS.

The magnitude of the funding increments made available to tackle the epidemic depended on the understanding of what exactly constituted HIV/AIDS funding. Interviewees distinguished among several dimensions of HIV/AIDS expenditure, varying from a narrow to a broader definition. As a participant from National Treasury noted:

> I normally classify it [HIV/AIDS expenditure] in three or four different ways. The most narrow perhaps is just like looking at the conditional funds, but the most broad is the costs of looking after all people sick with HIV related diseases in the hospital, the primary clinic. The first is close to 2-3 billion. The second is close to 10 billion. [Treasury interviewee]

With regard to funding mechanisms, most respondents believed that the Comprehensive Plan was mostly funded by conditional grants. Nevertheless, several interviewees argued that equitable share allocations would exceed those of conditional grants when the whole cost of caring for HIV-positive individuals was counted as part of HIV/AIDS expenditure. The epidemic exerted pressures on the overall health system, with people coming to health centres when they got sick. Several participants emphasised that this was the biggest part of the pressures of HIV/AIDS on the health system, more than the need for HIV/AIDS-specific interventions. This reason encouraged the transfer of more HIV/AIDS funding through the equitable share procedure and not through conditional grants. However, the ART program in particular was funded almost fully through dedicated funding, either through the conditional grant or by donors; equitable share funding was used in turn for the likes of opportunistic infections and prevention programs.

The study also enquired about the targeted increments on equitable shares allocated for HIV/AIDS. Several respondents at Provincial Treasuries and PDoHs said they did not know about this funding. Other interviewees from National and Provincial Treasuries explained that these increases were sent to provinces, accompanied by a 'soft indication' of the relevant priorities. These priority areas were set and agreed on by the Medium Term Expenditure Committee (MTEC) for health[60]. It was suggested that this mechanism had important implications for the vertical distribution of power because it shifted the authority and control over funding from

[60] The MTEC for health is composed of the ten-by-ten, 9 representatives from the provinces and one from national level.

the NDoH towards the PDoHs, and there was no established system for the NDoH to oversee the use of such funding by the PDoHs.

There was overall agreement that the availability of funding for HIV/AIDS was not an issue in South Africa:

> I've not come across a clinic which has to shut down because it hasn't had enough funding. [Research institution interviewee].
>
> [National Treasury has] always tried to be ahead of the wave on this one. I think [it has] tended to be fairly generous. [National Treasury interviewee]

However, concerns were voiced that National Treasury allocations to HIV/AIDS had actually slowed down. Many respondents expressed with concern their perception that HIV/AIDS expenditure had experienced a momentum, with extraordinary increases in funding, but that this momentum had now passed; currently it was time to move to other priorities. This meant that there would not be further huge jumps in HIV/AIDS expenditure as in the past. In fact, some interviewees, especially in the Western Cape, mentioned the forthcoming Football World Cup in South Africa in 2010 as one of those priorities that were expected to absorb bigger portions of the national and provincial budgets in coming years. Conversely, other participants believed that health care allocations would stabilise because unit costs were likely to decline, as more people initiated treatment and as the epidemic reached a plateau and stabilised.

Other interviewees argued that National Treasury may have revised the pace of funding in a process of rationalisation, because the treatment targets set had not been met and because of underspending records. At the same time, several respondents, mainly from National and Provincial Treasuries but also from other sectors, expressed their perception that National and Provincial Treasuries always responded positively to well-defended budget proposals. Thus, what was needed was to support financial requests with evidence explicitly demonstrating the need for extra funding, how it would be used, and what difference it would make.

In relation to major cost-drivers, several respondents, in particular within the NDoH, described the components of the Comprehensive Plan as two-fold: (a) the ART component, and (b) the rest. This description illustrated the perceived importance of the drugs component within the program. The relative weight of ARVs and laboratory costs in the expenditure was very high, as a result of their intensive use in ART, and these costs were considerably higher than for other health interventions. Concerns were raised about the need to balance the expenditure of the major cost-drivers of the program. In addition, many interviewees took a closer look at personnel costs, which was the biggest expense in health expenditure, making up around 65–70% of overall health expenditure. Hence, hiring personnel or increasing salaries was a quick way of spending the budget and 'improving' absorptive capacity, although it may not exactly translate into better services:

> It's easy to absorb 6 billion in wages, because from tomorrow you pay everyone 25% more. But do you get a better service? [National Treasury interviewee]

Many participants recognised that donor funding was very important in the country, particularly with regard to PEPFAR and the Global Fund. However, it was noted with concern that its contribution was not exactly known, with the exception of Global Fund funding. An interviewee cited some estimates of donor funding of around R2.5 billion a year, and in any case exceeding R1 billion a year. Important concerns were raised that donor funding was not well aligned with government funding. A large share of donor HIV/AIDS funding went directly to NGOs. It was even argued that double accounting happened sometimes, where one item of expenditure was covered by more than one funding source, which made financial planning and assessment of absorptive capacity more challenging:

> Departments will put the same bid into government as they will into the donor. Neither will know they're funding the same thing. [National Treasury interviewee]

Some participants highlighted the importance of not relying on donor funding, but rather using it to complement existing funding in order to achieve sustainability. This, however, required a commitment from government to fund the program. A respondent from the NDoH stated that the NDoH had been using donor funding primarily for building capacity, and not for the department's recurrent costs, thus

implying that there was no risk of depending on such funding for recurrent expenditure. In many cases, donor funding was mentioned in relation to financing of research projects. Several interviewees at the national level, within and outside government, argued that donor funding was not free from underspending problems either. For example, a large share of donor funding directed to South Africa was not spent because the NDoH often did not approve projects or took a long time to do so, which led to donors shifting the funding to other countries.

B Financing the Comprehensive Plan in the Western Cape and the Free State

Financing in the Western Cape

Although the Western Cape initially underspent on HIV/AIDS, underspending was very small in relation to national levels, and ended in 2004/05 with the commencement of the national strategy. Since then, the Western Cape has overspent and exceeded targets in the first two years of the program. According to a WCDoH official, the Western Cape overspent approximately R10 million in the first year (2004/05), and R20 million in the second year (2005/06). For the current year 2006/07, the province was planning on being R33 million over budget, and for the following financial year the province was R100 million under budget. Thus, the province kept applying for additional funding nationally while the province's own contribution to HIV/AIDS continued to increase.

In funding the Comprehensive Plan, the Western Cape combined the conditional grant with the Global Fund grant[61], which had been approved in 2003. This Global Fund financing was reported in the Western Cape provincial budget as a separate budget account, which facilitated its tracking and accountability. The Western Cape had been funding approximately two thirds of their ART program from the conditional grant and one third from the Global Fund. The WCDoH was also

[61] The Global Fund grant to the Western Cape was for the project: "strengthening and expanding the Western Cape HIV/AIDS prevention, treatment and care programs". It was presented via the national Country Coordination Mechanism to the Global Fund Round 3 of proposals, and the principal recipient was the WCDoH.

managing the Global Fund grant in a strategic way to ensure sustainability over the long term, as will be explained in Chapter 8.

Some respondents were asked about the relatively small MTEF increments in the conditional grant for 2007/08-2008/09. Some commented that these were mere increments over the baselines, which would be revised in subsequent years. A member of the WCDoH stated that their baseline had been revised in 2006/07, although it was still insufficient for their needs. Consequently, the WCDoH was requesting more funding for subsequent MTEF allocations. At the time of the research, the WCDoH was developing their motivation for these requested increases in future allocations. Expectations varied among interviewees as to whether the province would be successful in their request. It was also argued that increases could not be as high as in the past due to competing funding needs.

Financing in the Free State

There was an overall agreement that funding availability was not the problem. Rather, it was the ability to spend that funding appropriately that was of great concern. Most respondents in the province agreed that HIV/AIDS spending had been and still was a challenge in the Free State.

> Our experience in the province has been [that] it's been difficult to get funding moving because of capacity challenges of our basically district staff as well as our HIV/AIDS component. [FSDoH interviewee]

Members of the FSDoH recognised that at the time of this research the department was underspending in some areas of the Comprehensive Plan, such as on step down care, whereas in other areas there was overspending, such as the ARV component. However, as explained by members of the FSDoH, the overall budget showed underspending results because the overspending expenditure could not compensate for underspending expenditure. Thus the budgets showed underspending, whereas in fact it was both under- and overspending at the same time. Even in the hypothetical case where overspending exceeded underspending, the budget would have shown underspending results, thus giving a false image of the funding needs of the

program. Some expressed concern that this practice of not considering the existing overspending may have compromised future funding allocations.

With regard to the overspending of the ARV component, members of the FSDoH pointed to difficulties of planning and budgeting due to insufficient information on service needs. It was also argued that there was a bit of underestimation on budgetary requirements because the budget was based on the number of patients, which did not fully reflect their needs in terms of resources.

The Free State Treasury officials, in contrast, stated that, from their perspective, spending of conditional grants for health (i.e. not the HIV/AIDS grant exclusively) was not an issue in the province: underspending had been very low (less than 10% over the last years), and overspending was foreseen for future years. In addition, Provincial Treasury officials did not perceive any problems of capacity to spend in the FSDoH. This was qualified, however, by pointing out that spending all the money did not imply performing on the objectives, but that this was beyond the responsibility of the Provincial Treasury to monitor.

Despite the recognised spending challenges, interviewees within the FSDoH indicated that the province would probably spend their entire HIV/AIDS budget in the current year, and would furthermore probably overspend in future years if the number of ARV patients continued to increase. These rapid improvements in spending performance were praised by some, whereas for others it was a matter of concern: some respondents expressed concerns on how funding could be spent properly and strategically when there were such pressures to spend all funding and to do so quickly.

In addition, many participants in the Free State expressed the concern that, although funding was not a problem at the moment, it could become an issue in the future. Some suggested that funding would not suffice in coming years: “money won’t hold” [Academia interviewee]. There was no clear strategy of where to obtain extra funding from, whether from underspending in some areas of the program or from other sources.

6.6 Conclusion

This chapter explored stakeholders' perceptions around absorptive capacity in financing the Comprehensive Plan for HIV/AIDS in South Africa. South Africa's absorptive capacity was described as being relatively good, yet still insufficient, given the large need for HIV/AIDS treatment and the relatively strong health service delivery capacity in the country.

The rollout of the Comprehensive Plan remained below targets, although it has nevertheless been remarkably good given the challenges. In fact, interviewees revealed grave concerns that a too rapid implementation might compromise other health goals, such as inter-provincial equity. It was indicated that not enough was known about the dynamics around the implementation of the Comprehensive Plan. Recommendations were made to monitor its implementation both more closely and more widely, rather than focusing excessively on the number of patients on ART.

The research found that there was widespread acknowledgement that substantial funding had been made available to fight the HIV/AIDS epidemic. At the same time, there was consensus that spending had lagged behind funding, especially in the initial years of the conditional grant, and that this was a critical challenge for the implementation of the Comprehensive Plan. The improvements in spending patterns suggested that the capacity to benefit from existing resources has increased. Other interviewees, however, viewed these improvements in spending with concern, because not enough was known about the quality of that spending and its ability to strengthen the health system. Concerns were also raised around the availability of sufficient future funding that was required to scale up the treatment program.

The comparison between the Western Cape and the Free State revealed substantial differences in their respective capacities to utilise funding, their financial inputs, and their implementation of the Comprehensive Plan. These differences suggested that more emphasis should be placed on understanding the particular dynamics in each province in order to improve the use of funding.

CHAPTER 7 BOTTLENECKS IN SCALING UP HIV/AIDS FUNDING IN SOUTH AFRICA

7.1 Introduction

This chapter focuses on perceptions regarding bottlenecks experienced and obstacles encountered in spending HIV/AIDS funding. During the interviews, participants were shown a copy of Table 3.2 (page 58), which sets out the categories of various bottlenecks and lists potential obstacles to HIV/AIDS funding, as presented in Chapter 3. Interviewees were asked to comment on the following questions: do those bottlenecks and obstacles apply to South Africa and/or (in the case of the provincial case studies) to the particular province? Which bottlenecks and/or obstacles do you think were most important? Do you think there are other bottlenecks and/or obstacles to funding not listed here?

Most respondents agreed that problems around human resources were the main bottleneck holding back the program, both nationally and in the two provinces. The lack of managerial capacities and the shortage of pharmacists were perceived as major obstacles. Financial bottlenecks were important in impeding the spending of funding, particularly because of the requirements of the conditional grant and the insufficient financial management capacity, both nationally and in the Free State. Infrastructure featured as a major bottleneck in the Western Cape and to a lesser degree in the Free State, though it was hardly mentioned in national interviews. The inadequate national leadership to drive the response was highlighted as the major obstacle by many respondents, whereas for others it was not an issue. Thus, differences emerged in perceptions of national and provincial level stakeholders regarding the bottlenecks that constrain HIV/AIDS funding and the ART rollout.

This chapter summarises the feedback on each of the issues in Table 3.2 in Chapter 3, following its structure. Section 7.1 deals with financial bottlenecks, Section 7.2 with human resources bottlenecks, Section 7.3 with infrastructural bottlenecks, Section 7.4 with institutional bottlenecks, and Section 7.5 with structural bottlenecks. Finally, Section 7.6 summarises the main conclusions.

7.2 Financial bottlenecks

There were financial bottlenecks to the spending of funding. The most serious obstacles were the stringent reporting requirements of the NDoH with regard to the HIV/AIDS conditional grant and insufficient financial management capacity.

A Demanding reporting requirements for conditional grants

Most participants noted that the HIV/AIDS conditional grant had stringent requirements, more so than did other health grants, which hindered access to funding. To start with, conditional grant funding may only be spent in certain areas and on certain items within these areas. In addition, provinces had to report spending down to each detailed item, such as stationery and telephone, which was a great administrative burden. Sometimes, although the money had been spent, it was not always journalised as such due to the cumbersome procedure involved: it required dedicated personnel to deal exclusively with those finances, and such personnel was not generally available.

> The information required by the conditional grant is heavy. In fact, we were only one or two provinces that met last year the requirements. The other provinces couldn't because the requirements are very complex. [FSDoH interviewee]

> The initial period was a struggle because I think one was the instrument of conditional grants proved quite onerous for many provinces with respect to allocating the funds in terms of the business plan. Firstly developing the business plan, there was not much experience. Secondly the issue of allocation of those funds, and thirdly the use of those funds and accounting for management. So the blockages were a consequence of the system that was set up for managing the fund. [NDoH interviewee]

> In most of the provinces ... they have reported just by slotting things wherever they could. [NDoH interviewee]

The HIV/AIDS conditional grant hindered spending in other ways. Provinces could only shift expenditure from one area of their business plan to another with the consent of the NDoH. The Free State, for instance, reported problems with spending funding because such authorisation had arrived too late. This not only was not effective from a management point of view, but it was also perceived as an intrusion

into provincial affairs and a restriction of their use of discretion. In addition, quarterly reporting from PDoHs to NDoH occupied a great part of managers' time: "National needs to come visit us every quarter, and to spend three days looking at that is just a waste of time" [FSDoH interviewee]. The business plans were also criticised because they had turned into an end rather than a means, and because they used up too much of the time and energy of managers. It is worth noting that these complaints were raised at national level and in the Free State, but not in the Western Cape, which suggests that these obstacles were not relevant for this province, perhaps because of stronger capacities to prepare the business plans.

The inflexibility of the grant was partly due to the lack of clarity about its functioning. For instance, some managers believed they could not pay program management from the conditional grant. Although this was in fact not the case, they would not be confident in paying for program management because of uncertainty. Other respondents indicated that they did not use conditional grant funding to appoint HIV/AIDS personnel to permanent posts because they saw the conditional grant as something that was only temporary. This way of thinking was criticised by National Treasury, who maintained that HIV/AIDS funding would continue, whether through earmarked or discretionary funding.

The functioning of the conditional grant hindered spending, particularly during its first years, but it has improved since then because (a) reporting requirements were relaxed, and (b) provinces gradually learnt how to use the system. Although improvements in financial management and reporting were reflected in better spending rates, some respondents commented that the design of the grant was still a bit obscure and that it needed to be revised further by, for example, widening the spectrum of interventions covered and relaxing the reporting requirements.

B No HIV/AIDS spending specification of equitable share transfers

Interviewees reported that the discretionary use of equitable share funding was not detrimental to HIV/AIDS spending, and that it did not take up much of the respondents' attention. The Western Cape used discretionary funding for HIV/AIDS regularly, as the conditional grant received was smaller than requested. In contrast,

an official of the FSDoH noted that "it's a challenge to spend the [HIV/AIDS conditional] grant, so we won't be touching the equitable share" [FSDoH interviewee]. It is worth noting that some respondents from Provincial Treasuries recognised that there had been greater direction from national government on the use of discretionary funding in the last years, which was sometimes perceived as an intrusion on provincial discretion. This indicated a trend towards a more 'conditional' use of discretionary funding, which might be interpreted as a desire to ensure that funding was spent on HIV/AIDS but avoiding the use of the HIV/AIDS grant. This system had the advantage that provinces could freely decide the areas of HIV/AIDS on which they wanted to spend the funding, without the limitations of the grant. However, the disadvantage was that it lacked accountability, as there was no established reporting system on the final use of the funding.

Information on the lump sums for HIV/AIDS that were added to the provinces' equitable shares was difficult to find. In fact, most participants at PDoHs and Provincial Treasuries could not provide information on these allocations, thus reinforcing the lack of accountability in respect of such mechanism.

> We wanted to try to measure expenditure, and we couldn't because of those lump sums going on equitable shares, which there's no monitoring system in place. [Research institution interviewee]

C Weak financial management capacity at decentralised levels

Most participants identified insufficient financial expertise as a major obstacle to spending available funds. Financial deficiencies also affected the quality of budget bids prepared by NDoH and PDoHs, hence hampering future funding, as argued by several National and Provincial Treasury participants. Although financial management structures existed, with regular reporting and audits, the actual management on the ground needed to be significantly improved. For example, some provinces used different accounting packages and/or different sub-coding systems. The daily attribution of expenditures against the right account did not always happen. In addition, the pressures to spend the conditional grant often led to 'rescue plans' when the financial year was approaching its end and insufficient funding had been spent. Moreover, the lower a department was in the vertical line of government,

the less financial skills were found. It was more difficult for the most rural provinces and districts to appoint suitably qualified personnel.

Nevertheless, most respondents recognised that learning by doing had brought about significant improvements in financial management, especially in relation to the conditional grant. It was suggested that better results could be achieved by appointing financial officers to deal specifically with the HIV/AIDS conditional grant.

Financial management was not an issue in the Western Cape, which enjoyed greater financial, management and administrative capacity than most of the rest of the country, even at decentralised levels. But in the Free State, it was a very important problem: "financial expertise, that's where our biggest challenge is" [FSDoH interviewee]. The Free State had recently devolved expenditure responsibilities down to the districts, which increased the spending problem as districts did not know exactly how to spend the grant.

Both provinces noted the importance of financial officers, or the lack thereof, in the smooth functioning and administration of the grant. Whilst the Free State did not have any financial officer working specifically with the HIV/AIDS conditional grant at the FSDoH, the Western Cape had only one officer exclusively responsible for the Global Fund funding. Provincial WCDoH and FSDoH participants commented:

> I think it's because we've added additional financing capacity to make sure that we keep up to date and that finances are being shown against the right place. [WCDoH interviewee]

> There's [finance] posts here at head office [FSDoH] available for specifically the grant ... is now open for three, four years; and it's not been filled... The HIV/AIDS grant is such a huge grant, we have to have a specific finance person for that grant, and that's a big problem. [FSDoH interviewee]

D Mismatch between DoH requests and Treasury allocations

Several National and Provincial Treasury participants emphasised that budget bids from the NDoH and PDoHs to respective Treasuries were often not granted because bids were not sufficiently supported with information, especially from the NDoH. It

was not enough merely to ask for more funding; it was also necessary to attach the necessary documentation that justified the relevant request for resources. Deficient budget proposals were interpreted by some respondents as though the NDoH was not really interested in the additional funding: "they seem very much in two minds whether they want additional money for HIV/AIDS or not" [Provincial Treasury interviewee]. Other interviewees maintained that deficient budget proposals were more accurately due to insufficient financial capacity.

The NDoH was criticised for over-budgeting, specially in the early years of the existence of the conditional grant, by putting forward proposals which were more of a 'wish list' rather than a realistic plan based on actual capacities, thus resulting in 'astronomical bids'. Unrealistic demands also translated into underspending. Reasons for over-budgeting included the insufficient knowledge of how many people would demand the services, and the allocation of the equitable share formula based on the number of people sick, rather than on the number of people treated. Gradually, however, the development of better business plans contributed to better budgeting.

In addition, many participants noted the willingness of National Treasury to fund HIV/AIDS programs in a generous way, regardless of the results attained, thus leading to underspending. Other arguments pointed to the limited communication between NDoH and National Treasury in particular in finalizing the national budget. From another perspective, part of the problem lay in the disjuncture between planning and budgeting, as these often functioned as two separate departments, both in the NDoH and in PDoHs.

In the case of the Western Cape, the mismatch between the funding requested and the actual allocation received was attributed to different reasons. Funding proposals demonstrated sufficiently that the province had the capacity to treat more patients. Funding limitations were thus believed to be an attempt to compensate other provinces, which were not so well-resourced and had significantly fewer people on treatment.

E Fiscal policies may restrict health spending

Most respondents were of the opinion that fiscal policies did not restrict health spending in South Africa, and this issue consequently received very little attention. Nonetheless, a few participants did feel that fiscal policies were definitely a problem. Although social expenditure (including health) took a major cut of the national budget, other areas such as infrastructure were growing in importance. This signalled a shift in policy priorities, which might have compromised social allocations. For instance, many respondents believed the preparations for the World Cup 2010 were becoming a major budget priority, thus limiting the budget expansion in social areas, including health. This concern was particularly highlighted in the Western Cape. In addition, health expenditure had to compete with other social spending as well.

7.3 Human resources bottlenecks

The major bottleneck identified by all participants lay with human resources, "the single biggest blockage to absorptive capacity" [NDoH interviewee]. The lack of medical personnel was problematic across the public health service, but especially for ART given the staffing requirements stipulated for providing ART at accredited sites[62].

> A large part of that [underspending] relates to human resources. They advertise posts and they simply don't get them filled. [Research institution interviewee]

> The capacity largely revolves around human resources and that's the single biggest blockage to absorptive capacity. [NDoH interviewee]

A Shortage of personnel

There was an overwhelming agreement among all the interviewees that there was a severe shortage of medical personnel willing to work in the public service. This shortage translated into high vacancy rates throughout the public health service, not just in the ART program. The problem was not the shortage of personnel *per se* but

[62] As presented in Table 4.5 in Chapter 4.

rather the inappropriate distribution of available staff, especially between the public and private sectors.

> It's simply not enough people there. Then lots of them fall out of the existing pool, for various reasons, they're dying, they're going to private sector, or they're going abroad. [NDoH interviewee]

Generally, the Western Cape was better off in terms of personnel availability; the province was also able to recruit professionals from other provinces, as it was considered a more attractive place to live. Despite this advantage, however, a shortage of medical staff was still identified as the biggest bottleneck for the program in the province. This suggests how much more troublesome the shortage of personnel might be for those provinces with greater recruiting difficulties.

In the Free State, human resources were also the biggest bottleneck. Yet, it was also noted that other provinces were able to deliver more services with the same staffing problems as the Free State, suggesting that there were other obstacles hampering the program. Some Free State respondents noted that the ART program in the province was actually overstaffed. Their ART budget spent more on personnel and used more nurses per patients than other health programs, without providing proportionally more services.

The ART rollout was particularly affected by the shortage of pharmacists, doctors, nurses and program managers. The most acute shortage of personnel was experienced in the most rural and deprived areas. A few participants mentioned the attrition of medical personnel by HIV/AIDS as another important issue, though no specific information was provided in this regard.

Pharmacists

The shortage of pharmacists featured as particularly critical, especially in the provincial interviews: "pharmacists are harder to find than doctors" [FSDoH interviewee]. Pharmacists were crucial for the ART program because it was a drug-intensive program and it had high drug dispensation requirements: "the whole ART

program's a drug-driven program" [FSDoH interviewee]. Moreover, as the complexity of the medicines increased, so would the need for pharmacists.

> There aren't sufficient pharmacists 'in stock' to draw from them in order to expand ART sites. Not in the Western Cape. Not in terms of salary and working conditions in the public sector. They are already struggling to recruit and retain at the moment. Increasing them would be a big challenge. [WCDoH interviewee]

The divide between the public and private health sector was particularly acute among pharmacists. A respondent noted that less than 20% of registered pharmacists were employed in the public sector, and they received poor salaries relative to what they could earn in private practice. Consequently, there was a very high turnover of pharmacists and great difficulties in recruiting pharmacists in the public sector.

This bottleneck was emphasised by both provinces. The Western Cape acknowledged that they struggled to retain pharmacists, particularly in informal settlements. In the Free State, pharmacist occupancy rates fell far below 50%, and were thus even lower than for doctors. To overcome this problem, the Free State was creating a centralised pharmacy depot that would dispense medical supplies for the entire province[63].

Doctors

Surprisingly, respondents did not dwell much on the shortage of doctors, though the importance of this problem was recognised. The impression was that the shortage of doctors was taken 'for granted', that it was a widely known and discussed obstacle, and that it thus did not require further explanation. The understanding was that doctors were scarce all over the country, even prior to the implementation of the Comprehensive Plan, and that their shortage would grow as ART was scaled up.

Provincial differences however emerged. Whilst the Western Cape enjoyed better availability of doctors than other provinces, doctors were scarcer in the Free State, especially in rural areas, where it was common to find doctors from other countries.

[63] It would have two or three pharmacists plus ten pharmacy assistants. The idea was for this central depot to pack the medicine and send it to the ART clinics, where the nurse would issue the medicines.

Nevertheless, some FSDoH respondents recognised that the province had overestimated the number of doctors required in areas with few patients and consequently needed to redeploy these doctors.

Nurses

The availability of nurses was widely discussed by respondents. There was a shortage of qualified nurses in South Africa, even in the private sector. Furthermore, many qualified nurses were in administrative positions and did not do clinical work. The shortage of nurses cut across both provinces: "even in the Western Cape we struggle to recruit nurses" [WCDoH interviewee]. Interestingly, the nurse occupancy rate in the public sector was higher in the Free State than nationally.

Some participants argued that, if nurses were to take over more ART delivery responsibilities, their shortage would become even more important for the program.

> Getting the nurse to do more of the work, it makes so much sense. Where are these nurses. This hospital has got a 50% vacancy rate for nurses. Then show me the nurses, where are those nurses. So either you must train more nurses which is going to take a few years or you must reallocate nurses. You must take all these nurses out of paper work jobs and make them work as nurses. [FSDoH interviewee]

Conversely, it was noted that, in the event of the HIV/AIDS program being incorporated into the overall functioning of health centres, the need for extra nurses for the Comprehensive Plan would not be that intense. Other respondents went further and questioned the need for so many nurses in the public health sector; they suggested that the current over-use of nurses in the country should be revised, and that other staff categories such as administrative clerks and community workers ought to be employed to take on some of their responsibilities.

Counsellors and home-based care workers

Lay counsellors and home-based carers emerged as a major support to fill gaps in medical personnel. However, concerns were raised about the quality of their work and the extent to which volunteers were properly trained and supervised. There was

a high turnover of volunteers as they were paid a stipend by the NGOs, which impeded the formation of a skills base and was ultimately not cost-efficient. It was strongly emphasised that counsellors and home-based carers needed to be adequately supervised to ensure the provision of quality services: "We hear about counsellors. We never see them" [FSDoH interviewee]. The need for supervision featured more strongly in the Free State than in the Western Cape.

Program managers

A critical category of personnel identified as a major constraint was the lack of adequate program managers; 'adequate' here refers not to the number of program managers but to a lack of suitably qualified personnel. Management involves a complex set of functions: strategic planning, M&E, operational management of financial and human resources, coordination of the implementation platform, etc. Thus, management deficiencies affect all these aspects of the program. Most respondents referred to management at mid-level – such as program, district or facility coordinators – as being problematic, although some also referred specifically to high-level management as being problematic – such as the head of the PDoH.

> For me the key is what I call mid-level management. So the poor capacity of mid-level ... And I think the weakness of that layer is across all [health] programs but especially in the ARV one. [Research institution interviewee]

A major aspect of management identified as missing by respondents was the need for innovation and 'thinking outside the box' to solve local challenges as they appeared: "[it is] more about [the] capacity of managers to think creatively about what's going on and reorganise the system to adapt to new things" [Research institution interviewee]. Inadequate management related to the insecurity of managers or their fear of being penalised for taking decisions, which might be interpreted as deviating from the official line or overstepping boundaries. Managers preferred to follow 'word for word' what the Comprehensive Plan said rather than taking the risk of being considered disobedient or non-compliant.

> [Program managers] don't have the capacity to innovate, and have very weak capacity to implement ... And they don't have the confidence and the authority to do

> that local problem-solving which is absolutely essential for the program to be working well and scaled-up. [Research institution interviewee]

The insufficient capacity of managers was partly due to the way in which they took on their posts. Often nurses or doctors took on positions as managers without being trained in specific management skills. Moreover, the current transformation in the country and the prioritisation of previously disadvantaged population groups led to the employment of new personnel who did not necessarily have the specific background required for the specific position. This transformation was said to take place much faster in the public than in the private sector.

The shortage in management skills implied that large-scale training on strategic and operational management was needed across the health sector. Nevertheless, the high work load and pressures to deliver quickly meant that managers did not have sufficient time for training. In addition, managers' work-time was often taken up by day-to-day business, leaving little space for analysis in order to stay on top of the process in a pro-active way.

> It's hardly possible for these top managers to, whatever gaps they might have, to learn it while they're on the job, because they're working anyhow overtime. [NDOH interviewee]

Moreover, managers burnt out quickly, leading to a high turnover at NDoH and PDoHs where it was common to find acting managers, especially among top level managers, and particularly in the HIV/AIDS program. In fact, several managers interviewed as part of this research at the time had been either newly appointed or were about to vacate their post, or had recently left to take up a position outside government. The FSDoH had had an acting head for two years. One respondent acknowledged that the HIV/AIDS program managers had recently stabilised nationally, which was translating quickly into better spending.

Data capturers and administrative clerks

According to respondents, the availability of non-medical personnel like data capturers and administrative clerks was not an obstacle for the program.

B Poor human resource practices

Many participants argued that the major cause of human resource bottlenecks was inadequate personnel practices: "we are not making proper use of our personnel" [WCDoH interviewee]. This came up strongly in both provinces as well as nationally. Personnel management involved more than training; it also included looking at competence, staff morale, ensuring on-time payment of salaries, valuing workers' contributions and making them feel like important members of the team, etc. Many of these aspects were difficult to measure and monitor, yet were critical to the success of the program. The following example illustrates how better use could be made of existing personnel:

> In KwaZulu-Natal in many clinics 60 % of women are now HIV-positive – but the midwife is still doing the same things that she did 20 years ago. And all the HIV work is being taken up by new lay counsellors who are the least qualified people to do it ... and that has arisen because there's a lack of management capacity and imagination to think of how do we creatively change the way we do things. [Research institution interviewee]

Shifting responsibilities

One of the major suggestions raised in the interviews was the use of new modes of ART delivery to make better use of scarce human resources. The heavily doctor-centred approach for ART delivery as stipulated in the Comprehensive Plan emerged as a major constraint to scaling up ART, given the large case load in the country and the severe shortage of medical personnel, especially in rural areas. Thus, interviewees suggested that personnel responsibilities should be revised and that tasks among doctors, nurses and the rest of the health care team should be reassigned in order to utilise their skills better. In particular, respondents called for nurses to take on more responsibilities in providing ART. However, this shifting of tasks would also exacerbate the current shortage of nurses.

> You can appoint the wrong people in terms of the wrong categories of people. Where you need a nurse you appoint a doctor ... we, at least up till now, did these things. [NDoH interviewee]

> Do you need a nurse to write in the file of the patient? Can't a clerk do that? Can't we use the nurse to see follow-ups? [FSDoH interviewee]

In fact, both the Western Cape and the Free State were moving towards a less doctor-driven and more nurse-driven delivery system for ART, and both provinces were highly supportive of this system. The need to move away from the doctor-driven model to delivery of ART was underscored as a pre-requisite for scaling up the Comprehensive Plan.

The criticism that the accreditation of ART sites required high numbers of staff also extended to other professions. Respondents also questioned the need for dieticians, social workers and counsellors in every ART clinic.

> What must a counsellor do? The counsellor is usually there to break bad news, to tell people they're positive. Once the person gets to the ARV clinic, they're positive already. They've been tested and everything for a long time. There is no new counselling to be done. They sat there doing nothing. [FSDoH interviewee]

Recruiting and retaining personnel

The system of hiring staff in the public sector was very slow and thus held back spending and the implementation of the program. In fact, many participants shared their own personal recruiting experiences to illustrate the very frustrating nature of the recruitment system. The slow process of recruitment was linked to the bureaucratic character of the public system. Both provinces complained repeatedly of the troublesome process of hiring any professional, not only high level ones: "in the past, it has taken seven months to fill in a data capturer post" [WCDoH interviewee]. These delays affected the running of the program directly, as posts remained vacant, as well as indirectly, as the difficulty in recruiting the desired personnel created frustration within the program management team.

Even more problematic than recruiting was the failure of the system to retain personnel in the public sector. Personnel moved to private practice or emigrated abroad, where they found better salaries and working conditions. The so-called 'brain drain' phenomenon was identified as a major problem. Hence, new

recruitment efforts should be accompanied by policies to retain personnel in order to be effective.

> Yes, recruitment is a problem. But when you look at most companies, you will find that increasingly people are putting a lot more effort into keeping the staff that they have in the system. That's where I think the public sector is really struggling. [Research institution interviewee]

Salaries and incentives

Financial compensation was seen as a strategic area where money could ease human resource bottlenecks. A first step in attracting medical personnel from the private to the public sector and retaining them was to reduce the salary gap.

Some respondents argued that personnel policies should have focused on tackling the problems specifically in rural and disadvantaged areas, where the most acute shortages were, rather than applying overall benefits across personnel. This implied the need to increase the incentives specifically for personnel to move to rural and less attractive areas, including reallocation pluses, housing and education benefits, bonus incentives, and opportunities for professional promotion. Although rural allowances were paid to health workers, benefits were considered insufficient to compensate for the wide spectrum of perceived disadvantages of rural areas, and consequently rural posts were not filled: "I think it's more the situation than the money" [FSDoH interviewee]. These issues, such as bonuses and promotion, are discussed in the section below on personnel motivation and support.

However, there were concerns about the extent to which salary increases translated into service enhancement. A concern that was raised in relation to the Free State was that in order to attract professionals to the less attractive places, high posts were being created and paid for, though the work done was not worth that much. For example, when a Senior Medical Officer post remained vacant for a long time, it was replaced by a higher Principal Medical Officer post, to ensure that it was filled. As a result, "we are paying people more than they are worth in the work they are doing" [FSDoH interviewee].

Motivation and support

A significant number of participants commented that the 'soft issues' such as motivation and support were more important than the salary itself (the 'hard issue') in recruiting and maintaining personnel. Job satisfaction was about ensuring minimum decent work and life conditions in terms of motivation, feeling of usefulness, good team environment, promotion possibilities, housing, children's schooling, etc. An issue that featured often in the interviews was the perception of personnel not feeling supported by managers but rather feeling constrained and being afraid of managers. These issues were believed to be crucial in the success of any program, though they were often not taken into account. It is worth noting that these 'soft issues' were not included in the table of bottlenecks and constraints shown to interviewees. As a result, many respondents added these issues to the list.

> There's no ways in which this injection of money into the public service is drawing people from the private sector into the public service … It's not people's salaries that matter, it's whether they feel supported and valued. [Research institution interviewee]

Some participants reported that the ART program was one of the most satisfactory health programs because medical personnel could quickly see that they were making a radical difference to the well-being of the patient. However, for managerial employees it was said to be particularly frustrating because of the political pressure and controversies around HIV/AIDS and ART, in particular at the national level and in political circles.

Training

There was general agreement on the need to train more medical personnel to enter the system and thus to broaden the pool of professionals. Training of medical students was a shared responsibility of the DoH and the DoE, thus limiting the role of the NDoH to influence the number of new medical professionals. In addition, training was costly in terms of time, as personnel had to be taken away from their posts to receive training. To avoid this, the FSDoH organised the training of professionals through Interactive Learning, Communication and Management

(iCAM), a satellite-based training centre that decentralised health training through television to the 40 facilities in the province[64]. iCAM was praised in the province for reaching a high number of professionals.

The promotion of middle-level personnel was devised as a crucial strategy to deal with personnel shortages. The middle-level category applied to several professions: doctors, pharmacists, dentists, occupational therapists, etc. Personnel in this category had to work under the supervision of the relevant high-level professionals. For example, middle-level doctors, also called medical associates, were a category between doctors and nurses. They would work under the supervision of a doctor. Their training was devised to start in 2007. Pharmacy assistants were also seen as another crucial category due to the shortage of pharmacists. A pharmacy assistant would work under the supervision of a pharmacist.

> Now we are moving though towards the development of a mid-level as a way of filling the gaps. And we think also if we do it correctly we would not be under skilled. So we know we won't get as many pharmacists as we need. So we've developed a pharmacy assistant, mid level. [NDoH interviewee]

Respondents were very positive about this new development as a medium-term solution to the human resource shortage, as it would take a few years to train such personnel. However, concerns were raised that a fight between the professions about scopes of practice would emerge.

> Where do you draw the line? If you have an assistant doctor in the rural area and there is no doctor, how far will he get into the scope of the medical profession? [FSDoH interviewee]

Several participants mentioned the community service required from medical personnel as another avenue to keep medical personnel in the public system. Besides graduating doctors, who were already doing this service, nurses were also projected to work one year after graduation in the public sector. It was suggested that doctors' services should be increased from one to two years, and that financial support provided to students should require them to work in the public system for a few years after they finished their training.

[64] ICAM existed before the ART program. It provided four courses per year for the implementation of the HIV/AIDS program, of 40 hours each. It was paid for from the conditional grant.

7.4 Infrastructural bottlenecks

At the national level, infrastructure was not mentioned as a major bottleneck. It was recognised, however, that in some instances physical infrastructure might have been a problem with regard to lower level facilities needing upgrading.

Provincial interviews, in contrast, identified infrastructure as a major constraint in complying with timely spending of the grant and expanding the program. The first ART sites selected were those with higher capacity to comply with the accreditation criteria; thus, as the program progresses, new facilities will require greater infrastructure investments, which means that infrastructure is likely to become a more important bottleneck. In the Western Cape, where ART programs had been running longer, infrastructure featured as the second biggest bottleneck faced in expanding the program, after human resources. In the Free State it was identified as a bottleneck, though not a significant one; it is likely to become more important as additional ART sites are opened.

> We can't employ more personnel until the physical structure has been expanded, because there is no space to put more people. [WCDoH interviewee]

The problem with infrastructure projects was that they were slow: "the challenge with infrastructure is basically just to respond quickly" [WCDoH interviewee]. This was partly because of the time required for construction, but also because the Department of Public Works (DPW) had to execute the projects. The DPW operated through the tender processes, which took time: "the swollenness around the infrastructure spending is the tender process" [Provincial Treasury interviewee]. Furthermore, the DPW took into account Black Economic Empowerment issues, thus pursuing the employment and training of local people in awarding contracts. Yet, it was noted that infrastructure for ART was relatively small compared to other infrastructure projects of the WCDoH.

> There's an immediate need to accommodate 25% more surface space in this area. That need by best processes gets answered over at best a 48 month period. By the

> time you've addressed that need, when you reach 48 months, there's a bigger need. [WCDoH interviewee]

Infrastructure projects allowed for the absorption of large amounts of funding, although it was difficult to foresee when such funding could be registered as spent. The FSDoH reported difficulties in financially managing their infrastructure expenditure because infrastructure projects exceeded the budget time frame: "only then in the middle of nowhere they will slam you with all those accounts from the previous year" [FSDoH interviewee].

The high infrastructural requirements for accreditation of ART sites were criticised, such as the actual need for a separate room to ensure confidentiality of VCT or the need for a new pharmacy exclusively for ART. In the Free State, some interviewees argued that the province had perhaps over-invested in 'nice' infrastructure, which was perhaps not necessary for delivering quality services. Moreover, these high standards put ART on a pedestal, as the department had invested in ART infrastructure but not in the rest of the clinic. This contributed to dividing ART spaces from the rest of the clinic or hospital space, thus hindering the integration of services.

Moreover, respondents from the PDoHs criticised the DPW, and respondents outside government also criticised PDoHs for not allowing for temporary solutions to address needs in the short term.

> One of the bottlenecks in this province [Western Cape] has been the reluctance of public works to allow temporary space to be built, prefabs, containers. Public works object every time anyone wants to put one up. [Academia interviewee]

> As soon as you say what about temporary structure, "no, nothing is allowed to be temporary". What about mobile clinics, "no, it can't be mobile". What about renting or buying a house outside the hospital premises and have the clinic there? "No, that's not good either". [FSDoH interviewee]

In the Western Cape, the Global Fund grant had initially covered infrastructure projects, but this changed. At the time of this research, it was not clear whether the new Global Fund policy applied retrospectively and where the money for the planned projects would come from, which was slowing down the process. To plan

for future needs, the WCDoH was in the process of recruiting a manager to deal with matters pertaining to ART infrastructure.

More specifically the lack of clinic/hospital space, of the space to store drugs, and of the laboratory infrastructure is discussed below.

A Insufficient clinic/hospital space

The accreditation of treatment sites required spaces for doctors, nurses, adherence counsellors, support groups, etc. At the clinic level, the space was difficult to find, and new rooms thus had to be constructed. At the hospital level, it was easier to find unused space which could be adapted. Initially, the bottlenecks table shown to interviewees referred only to hospital space, but respondents made the point that the lack was more about space at the clinics. The table was updated accordingly.

B Lack of storage space for drugs

The ART program uses high volumes of drugs, and sufficient storage space was required for sites to be accredited. Paediatric medicines in particular took up a lot of space. Some ARV drugs needed refrigeration. In addition, the increasing use of second line drugs exacerbates the space problem.

> If you want to provide the ART service at community health centre level, as a rule you need to increase the size of the pharmacy by 25%; it's high volume drugs. [WCDoH interviewee]

> You design a clinic and you say we're going to have 500 people, we need so much storage space. Now we're 200 people on the program and the space is just not enough. So the space for drugs is quite a big problem as well. [FSDoH interviewee]

Although expanding storage space did not always happen quickly, it was not generally perceived as an obstacle for the program. It was argued that expanding the number of sites delivering ART would lower patient loads and ease storage limitations. The central depot used in the Western Cape, for instance, eased the space constraints for drugs. This provincial depot had a very quick response rate, providing

stock within a week. This allowed sites to drop their stock to 2-4 weeks. Other provinces like the Free State needed to keep 2-3 months' worth of stock.

C Inadequate laboratory infrastructure

Laboratory infrastructure was not a bottleneck for the program nationally or in the two provinces: "I don't think it's a big problem in South Africa comparing now to other places" [WCDoH interviewee]. Problems, nevertheless, were reported in rural areas. The National Health Laboratory Services (NHLS) was criticised for being reluctant to expand existing laboratory services or transport systems, and the NDoH was criticised for not being able to supervise the NHLS's service. The turnaround time of results of the NHLS was said to be too high, even for a program like tuberculosis. The NHLS was characterised by some as a business-minded but not patient-oriented organisation.

7.5 Institutional bottlenecks

The group of institutional bottlenecks embraced several obstacles related to various elements of the public health system, including M&E systems, procurement systems, integration of tuberculosis and HIV interventions, existence of pilot studies, and leadership, as discussed below.

A Poor M&E systems

Most participants, though not all, characterised the M&E systems of the Comprehensive Plan as unsatisfactory, and thus as an important obstacle for the program. Deficient M&E systems hampered spending and progress on the ART rollout in several ways. Firstly, information was not readily available for planning, budgeting and management purposes; thus, better M&E systems were necessary to overcome the obstacles mentioned above, such as weak budget proposals and inadequate program management. Secondly, it made the program less accountable, as it was difficult to report on progress. Thirdly, insufficient and partial data led to debates around HIV/AIDS and ART statistics, which distracted managers' attention

away from more relevant operational issues. Finally, the lack of information also impeded the recognition of achievements.

> I think it [insufficient M&E systems] is holding the program back politically because it leaves space for sceptics to doubt if the program is working. [Academia interviewee]

The M&E system for the Comprehensive Plan was set up independently, outside the regular DHS structure, in order to pursue higher quality of information. Although data capturing was problematic across the health system, it was even more so for ART because: (a) HIV/AIDS was politically sensitive; and (b) ART was a life-long treatment, more complex than tuberculosis, for example[65]. However, having a non-integrated M&E system created an opportunity cost because the efforts invested in it could not benefit the existing general M&E system.

Respondents also indicated that different M&E systems were used for the Comprehensive Plan across the country. Provinces used different data collection systems, which were not necessarily aligned with each other, while the private sector used still different tools. Moreover, national indicators were not always clearly defined and were sometimes interpreted differently by NDoH and PDoHs, such as, for example, the definition of 'awaiting treatment'. In addition, each province reported on three types of M&E instruments to different structures of the NDoH. Moreover, both the WCDoH and the FSDoH each used its own self-defined M&E instruments for management purposes, which were not the same as the indicators reported nationally: "I don't even know what national indicators are; I know what ours are" [WCDoH interviewee]. Finally, the variety of M&E systems was not being coordinated consistently by the NDoH. PDoHs also complained that feedback received from the NDoH on reported data, if any, was not useful. Not only did provinces lack direction from the NDoH, but they even questioned the use of the information by the NDoH. The multiplicity of reporting systems consumed time and effort, and led to apparently contradictory information, which in turn led to questions about the reliability of data, thus hampering the aggregation and comparison of data on progress on the Comprehensive Plan.

[65] The M&E system for tuberculosis was also independent from the DHS

> We have initiatives that are expensive. Rolls Royce things. Patient information systems, looking great on paper, implemented, piloted ... and two years down the line, we don't have the feedback to say: does it work? [NDoH interviewee]

The M&E of the rollout was criticised for not providing even the most basic information, such as the numbers of patients currently on ART, let alone others, such as the side-effects of ARVs or the impact of the implementation on the overall health system. Several provincial respondents argued that the Western Cape and the Free State were the only provinces reporting on the number of people currently on ART.

> One of the terrifying things is that inadequate M&E system in place, and recording and reporting systems, so people couldn't tell you exactly how many patients where on treatment. They'd say 'oh, it's about 600 or 800 on the waiting', or 'oh, we could take a few more hundred, but not many after them'. It wasn't precise enough [Research institution interviewee]

Interviewees complained of the inadequate quality of the resultant information. The poor quality of data was both a cause and a consequence of officials not using the data, in a catch-22 situation. Even provincial managers did not always use the available data, indicating that existing systems were not fully adapted to the needs of the people working in the program. Sometimes the M&E systems included too many criteria, thus collecting the maximum information rather than focusing on the main priorities.

Significant differences emerged between the M&E systems of the two provinces. The Western Cape initially had a paper-based register. Designed by the province, it was adapted to the province's existing needs and capacities, providing satisfactory feedback to provincial managers. The province was planning to move to an electronic system at the time of the research[66].

Conversely, the electronic system of the Free State was heavily criticised because of the insufficient feedback provided and concerns about the ownership of the

[66] Some sites were already using computers, parallel to the paper register, to monitor children's information for the NGO ARK.

information. The data warehouse was in Cape Town[67] and it was argued that the FSDoH lacked control over the data. Furthermore, it was a complex data warehouse, and it was difficult to retrieve information from it or to change its original design. Other respondents questioned the incentives of the partners managing the warehouse, indicating that researchers might have been more interested in publishing than in disseminating the information openly and quickly to program managers.

> The danger is that we have researchers sitting on data and wanting to publish and they are gatekeepers of data, and government or policy makers entrust them with this information. [Academia interviewee]

In addition, the Free State M&E system suffered from significant backlogs in data reporting, it did not report information disaggregated by sites, and it did not report on the children in the program. It was noted that the use of an electronic system did not guarantee better information unless the data was properly entered: "garbage in is garbage out" [NDoH interviewee]. Moreover, it was argued that the FSDoH would rather use the pharmaceutical data from the chief pharmacists of the ART program instead of the warehouse data to report on progress to the NDoH, as it was more accessible to the department. The use of pharmaceutical data instead of warehouse data was problematic because the former was less exposed to quality controls and it provided higher estimates than the figures gathered through the registers.

[67] The M&E system of the Free State was set up by the MRC and the Lung Institute of the University of Cape Town (UCT). At the time of the research, the data warehouse was in the process of being handed over to the Free State.

B Weak procurement systems

Despite existing challenges, capacity in procurement and distribution systems was good and acceptable in South Africa, especially compared to other African countries, and most participants did not consider it to be a bottleneck. Weak procurement systems referred to both drugs and medical equipment.

Drug procurement

This was a very large part of the ART program, and timely availability of ARVs was critical for the patient's progress and for avoiding resistant strains of the virus. There had been some delays in the distribution of ARVs, but significant funding had been invested in drug tracking systems and issues had been sorted out.

Provincially, whilst the Free State noted stock-outs of some drugs, the Western Cape noted that it had not experienced any stock-outs since the program started. Awareness of the importance of timely availability of ARVs, together with the independent ARV depot in the Western Cape, meant that the province's distribution system worked better than for general medicines. The WCDoH established a parallel ARV pharmaceutical service, independent from the one used for all other drugs, which was considered effective in the short term, as it enabled tight management and fast delivery of ARVs.

In order to avoid drugs going missing, ARVs were managed as a Schedule 6 medication, similar to morphine, although they were legally a Schedule 4 drug. This implied more control over how ARVs were kept and distributed through drug registers. This regulation implied a greater workload, and this was highlighted as a major hindrance to the expansion of the program in the Free State.

The ARV tender processes were regarded as another obstacle for the program because they took too long to finalise and were not flexible enough to procure the best drugs solutions.

> There's one drug with a good formulation and a bad formulation, and only the bad formulation is available, because there's a three year tender for that formulation even though the newer one is now on the market. [Academia interviewee]

Medical equipment and general procurement

Frustrations were expressed in the provincial interviews, but not at national level, about the overall slow pace of making the procurement system work. Procurement was said to be slow because of the bureaucratic nature of the public system, which requires the 'collection' of many authorizations.

> Procurement is definitely a limitation. It's incredibly frustrating ... you have to run and chase and follow. [WCDoH interviewee]

Details about equipment limitations were often given as an example of simple things that made the difference between an enabling or challenging environment; in the case of doctors, for instance, having a working telephone in their office so that they could access patient's results, made a big difference to their working conditions. In fact, general procurement was not included in the table of obstacles, but was added to it by several respondents, arguing that general procurement problems, such as, for example, in relation to telephones or computers, also hindered the spending of budgets.

> Every time they tell us we've got millions of rands, we have to spend it. Tell us what you want. Then we say we need filing cabinets, we need telephones. Then, sooner or later, at the end of the financial year they say we are in trouble, we did not spend the millions. Now all of a sudden, buy lots of stuff; then the people buy TVs, water dispensers. And I say what happened to the telephones we need? We still haven't got the telephones. [FSDoH interviewee]

C Need for integration of HIV and tuberculosis services

The need to integrate HIV and tuberculosis services was recognised across respondents, but was not considered a bottleneck. The entry points to integrate tuberculosis and HIV were not clear, and more research was required to clarify what kind of integration was needed.

> I don't think you want to put a patient with multi drug resistant tuberculosis in the same waiting room as the patient with HIV immune suppression. [WCDoH interviewee]

Some respondents feared that greater interventions by the two programs might have led to further stigmatisation of tuberculosis due to the high stigma already around HIV/AIDS. Although some pilot projects were mentioned, little was known of the obstacles confronted in integrating the two services. Other participants recommended the integration of HIV/AIDS programs into the larger PHC system, and not only with the tuberculosis programs.

D Insufficient use of successful pilot studies

The overwhelming majority of participants acknowledged that South Africa had conducted numerous pilot studies around ART delivery, some of which had been incorporated into the development of the Comprehensive Plan. The presence of research projects was therefore considered an important asset for the implementation of ART in South Africa, especially in comparison to other countries, and thus it was not a bottleneck. Nevertheless, there was insufficient dissemination, debate and learning from previous and existing studies. The NDoH was criticised for not pulling together and taking advantage of this existing body of knowledge.

E Inadequate political leadership

Most respondents noted that inadequate national leadership was a major obstacle for the program.

> National leaders are investing heavily in the program. But what they must understand is that money is not enough. They have to endorse it publicly for this to actually work. [FSDoH interviewee]

> I think above all is the need for kind of clear leadership that doesn't confuse either the masses or health professionals ... There isn't a single national message on what it is that actually needs to be done. [Research institution interviewee]

The most important constraint to leadership highlighted by respondents was the ambivalence of the President of the nation and the Ministry of Health in relation to

HIV/AIDS, in particular ARV treatment. These leaders were criticised for sending out mixed messages around HIV/AIDS and ART, which caused controversies and fuelled confusion among medical professionals as well as the public in general. In particular, political leaders did not clearly promote the uptake of ART by individuals in need: "if you can find a speech in the last year in which Mbeki has said the word antiretroviral, well done. There aren't, they don't exist" [FSDoH interviewee]. Most respondents believed that the ambiguity of top leaders was largely responsible for the delay in rolling out the Comprehensive Plan, as well as for the insufficient demand for ART. In particular, early underspending on ART was partly the result of it not being 'politically correct'. Furthermore, it was argued that, despite the existence of the Comprehensive Plan, AIDS denial by top leaders was not over.

> The inability of the Minister of Health and the President to unambiguously say to people: "we're totally behind this program; go get tested; go and access treatment" ... translates into a huge amount of confusion on the ground. [Academia interviewee]

> To me, what would make the greatest difference in terms of capacity tomorrow? I reckon it would be if the president went down to Khayelitsha or to any clinic and just put his arm around a health worker, a nurse, and say "I think you're doing a wonderful job." He doesn't have to mention AIDS, but I think it's that feeling that we are doing something that is important that is supported by leaderships whom we trust and we admire. [International organisation interviewee]

At the same time, responses also revealed different understandings and expectations of leadership. Leadership was described as having a clear vision that would guide and promote the technical implementation of programs. Other respondents assessed the existing political leadership as per the existence of plans and guidelines to address HIV/AIDS, together with the allocation of sufficient funding. For other respondents in turn leadership was also about the commitment to make those plans work, i.e. overseeing the implementation of plans to ensure results. Other participants viewed leadership as the capacity to strategise and plan in advance, providing the means to prepare for future challenges. Other interviewees pointed as the ability to coordinate efforts and engage with all stakeholders, i.e. an empowerment process in which the role of a leader was to support others to act to their full potential.

> Because the civil service is quite bureaucratic ... it works like an army .,.it's difficult to start an AIDS treatment service unless the boss agrees: the head of the army. [Treasury interviewee]

According to those criteria, leadership in South Africa was considered as very good because it had drafted the Comprehensive Plan and guidelines to support its implementation, and also because it had ring-fenced substantial funds to fight the epidemic. However, the leadership of the NDoH was criticised for not sufficiently monitoring the implementation of the Comprehensive Plan, for not planning strategically with forward thinking, and for failing to work productively with civil society and the private sector.

> Donors all thought that AIDS denialism was dead because we've got this ARV treatment programme.... wrong, totally wrong. AIDS denialism is alive and flourishing. [Research institution interviewee]

This ambivalence on the part of national leaders trickled down to provincial program managers, preventing the full support of the program in the provinces:

> You do definitely get a sense at a national level, which is then picked up by senior people at provincial level, that there's a bit of ... ambivalence ... there isn't like 100% commitment, we're doing this and it's got to be done but there's not a wholehearted. [Academia interviewee]

> Provincial doesn't want to go against national and therefore they're not running at full steam [WCDoH interviewee]

> I can't tell you how much time that takes from mangers, to actually try and ... get past the national department. [FSDoH interviewee]

In cases where the province *was* fully backing the ART program, it was described as a "war between national and provincial" [Research institution interviewee]. In fact, the NDoH was perceived as undermining the work of the provinces, as the former did not publicly and widely support the advances on the ART programme. The provinces' political strength and confidence was determined by the extent to which provinces needed to follow the national line.

Thus, big differences emerged between national leadership, mostly characterised as lacking, and provincial leadership in the Western Cape and the Free State, regarded as much more satisfactory. Other examples of good provincial leadership were reported for Gauteng, KwaZulu Natal and North West province. It is worth noting that these provinces were not exclusively the most urban or those with better health systems, which suggests that leadership was not dependent on the existing resources or health systems.

> A lot of strong provincial leadership of the programme and some provincial leaders really taking it on board and steering it – even in politically aligned provinces – in very clever ways politically. [Research institution interviewee]

> So despite the lack of national leadership around this, what you've had is actually a lot happening on the ground. I think that's because you've got a lot of bottom-up leadership happening. [Research institution interviewee]

In fact, extraordinary leadership in the Western Cape was regarded as one of the major factors contributing to the success of the program in the province. The province had provided ART before it had been approved as a national policy, and this had required strong commitment on the part of leaders 'to stick their necks out' against the political climate. The province's commitment was also demonstrated in the detail of its planning and in the good collaborations and relationships with civil society organisations. The provincial leadership was characterised by strong individuals working together as a strong team.

> We [Western Cape] had leadership ... he managed to achieve the political buy in and the buy in from top management within the province. He also established a core team to drive the program, a team of drivers to get the things done. [WCDoH interviewee]

In the Free State, respondents reported both positive and negative aspects of leadership. The province was fortunate to have political and departmental leaders who fought for the program, and the establishment of an ART Task Team[69] within the FSDoH devoted to coordinating the implementation of the Comprehensive Plan.

[69] A characteristic element of the Free State's ART implementation had been the creation of an ART Task Team to coordinate the execution of the Comprehensive Plan. This body included several FSDoH officials as well as representatives of health districts, NGOs, academia, and others, who met regularly, initially once a week and eventually every two weeks.

Some respondents praised the role of the Task Team in creating the space for the participation of all role players and allowing everyone to be informed of the progress and problems encountered. However, some interviewees expressed their frustration at actively engaging in the regular meetings but not being able to obtain solutions to the problems presented in this forum. Hence, this coordinating structure was criticised for lacking the power or assertiveness to take important decisions.

It was also noted that, in the tension between national and provincial leaderships, there was a political factor too. In the initial years, spending on HIV/AIDS was not 'politically correct' because "the health minister and to some extent the political leadership was not clearly pro-treatment" [WCDoH interviewee]. Consequently, "provinces where politics dominated policy were slow to start treatment" [WCDoH interviewee]. This related to the political alignment of the province with the main national political party, the African National Congress (ANC). Provinces like the Western Cape and KwaZulu-Natal which were governed by a coalition of parties, allowed more room to provide treatment. But it was also said to relate to the political position within the ANC. For instance, the province of Gauteng had a significant power base of its own and was politically powerful within the ANC. Hence, they had also more room to draw the line in relation to treatment. Thus, provincial political strength and confidence determined the extent to which provinces needed to tow the national line.

Nevertheless, a participant emphasised that, while inadequate leadership was an important obstacle, it could not explain by itself the difficulties in implementing the Comprehensive Plan:

> There's no lack of political leadership around TB. There's no controversy around TB, and yet TB is still a terrible problem. [Research institution interviewee]

In order to approach the issue of leadership more constructively, several respondents recommended looking at alternative voices of leadership, which had proved good examples, including provincial governments like the Western Cape, other national departments such as the DSD, individual champions at specific health centres, and advocates from local communities and civil society. Participants emphasised the

need to focus on the positive signs around ART, to recognise them and celebrate them. It was hoped that as the Comprehensive Plan continued to advance and show positive results, political controversies would become less of an issue.

> There needs to be much more celebration of the successes and the progress which has been made. It's true that there are many thousands of people today who are alive because treatment is there. [International organisation interviewee]

7.6 Structural bottlenecks

Structural bottlenecks included those obstacles outside the domain of the public health system, such as access issues, reliability, predictability and coordination of funding, ownership of decision-making, government bureaucratic system, PPP, community outreach and participation, and the need for social insurance.

A Issues of access: cultural barriers, stigma and transport

Access issues were not seen as holding back the expansion of the program, as in most cases the demand for ART services clearly exceeded the existing delivery capacity of facilities. However, as the number of ART facilities increases, it will be necessary to intensify the demand for treatment in order to achieve the objectives of the Comprehensive Plan. Moreover, expanding demand for services is crucial for the treatment program's success.

Cultural barriers however influenced health seeking behaviour patterns and the level of trust the community had in the clinic. In rural areas, compared to urban ones, more people preferred to use the Sangomas (traditional healers) over public health services. Respondents expressed concern that stigma prevented people from being tested and accessing services, although this was not considered a bottleneck. Furthermore, as treatment services were functioning on the ground, stigma became less significant: "sometimes with confidentiality we create a bigger problem than it is for the patients" [FSDoH interviewee]. Limited availability of transportation

strongly affected the ART program due to the high number of required visits to the health facility[70].

> You have to go to the hospital to give blood because this clinic cannot take blood for CD4 count; 200km to get the blood, 200km to get the result, and then 200km for a review. [NDoH interviewee]

Transport was seen as a potential bottleneck in provinces with very poor infrastructure, such as the Eastern Cape. In the Western Cape and the Free State, transport was considered an important logistical problem, but not a bottleneck as such. The use of mobile clinics for VCT and the expected decentralisation of the program towards PHC facilities were expected to ease the transport problem.

B Insufficient reliability, predictability and coordination of funding

Problems of insufficient reliability, predictability and coordination of funding, very common with donor funding, were not believed to be relevant for South Africa because the Comprehensive Plan was primarily financed domestically. Yet, other nuances in respect of these issues emerged. Firstly, donors contributed substantial financial and non-financial aid to support ART delivery. In the Western Cape and Free State, moreover, the contribution to HIV/AIDS financing of foreign funding was substantial: in the Western Cape, the Global Fund covered as much as one third of patients on ART, while an official of the FSDoH noted that the non-financial contributions of donors were more important than the financial ones in this province. Respondents argued that there was inadequate coordination among donors and also between donors and the government, which sometimes led to duplication of efforts. Further, it was noted that, although donors had offered significant funding to South Africa, the said funding had neither been accepted nor rejected due to the lack of a decision from NDoH regarding donor aid. Apart from that, the cumbersome procedures to get these authorisations prevented some national organisations, especially smaller ones, from accessing donor funding: "too much work for too little money" [Research institution interviewee].

[70] Regular, timely visits to clinics and/or hospitals were compulsory for the drug readiness preparation, in order to be eligible for ART, and once on treatment for follow-ups and drug collection.

Secondly, domestic HIV/AIDS financing was not entirely free of obstacles. For example, the availability of public funds transferred to provinces depended on the timely delivery of approved business plans, which was regarded as complicated for many provinces, therefore compromising the reliability of funding. In addition, the predictability of the budget was affected by last minute adjustments, as argued by a FSDoH official. In addition, the coordination of financing between the vertical levels of the DoHs was often insufficient. For example, the decentralisation of financing responsibilities from the FSDoH to districts was affected by inadequate communication between the province and the districts. Although these funding issues were relevant to the program, they were not considered to hold it back.

C Lack of ownership of decision-making

Most respondents argued that South Africa did not have any problems of ownership of decision making, because funding was mainly domestic. Decisions on funding were made 'in house', following the country's priorities. It was recognised that lack of ownership was a big problem for other African countries. Yet, several participants complained about the insufficient ownership of the existing donor funding in South Africa.:

> We would like to have more funders; but the funders shouldn't dictate to us what to do. [FSDoH interviewee]

Likewise, several respondents complained that there was too much top-down control from the NDoH over the implementation, as the approval of NDoH was required for many important decisions at provincial level. Thus, PDoHs were left with little discretion.

D Slow government bureaucratic system

Many respondents criticised the bureaucratic nature of the public administration and governance system, as it obstructed and delayed procedures.

> The amount of paper pushing that you have to get through. [WCDoH interviewee]

A repeated frustration was that every action within the health department required numerous authorisations and signatures, taking too much time and effort from personnel. This was illustrated for example by the cumbersome procedures required to hire personnel within the DoH, which ultimately demoralised staff. The bureaucratic nature of the process was linked to perceptions of a lack of decision making power due to conservative attitudes among managers and heads of departments. Bureaucratic hurdles were also highlighted in respect of the numerous requirements to accredit ART sites.

> There are a lot of bureaucratic and administrative bottlenecks ... the process will take three to six months, easily; six months to a year. The whole process of submission, authorization levels to get what is in the plan being approved for the actual activity to take place is very slow. [NDoH interviewee]

However, it was also recognised that the cumbersome regulations within the public system served to ensure that the right processes were followed to avoid faulty practices. Consequently, although these procedures might have been perceived as slowing down the rollout, in fact they made the process more sound and sustainable, and thus facilitated better outcomes. It was up to managers to work within these rules, planning in advance to avoid delays. For some respondents, the bureaucratic character of the public administration system should not have been a bottleneck for the Comprehensive Plan, because the system had always been there and people found ways to go around the bureaucratic hurdles.

E Need for PPP

Although partnerships between public and private entities in relation to HIV/AIDS were numerous, not enough was done to take advantage of the extraordinary pool of expertise available in the private sector in South Africa, both for profit and not-for-profit. However, the need for more PPP was not considered to be an obstacle for the program.

One major area requiring better collaboration was human resources, as the private sector was more successful in attracting medical professionals than the public

service. Collaboration was needed in terms of clinical service delivery, such as recruiting doctors in sessions to see complicated cases. Yet, national and Free State responses pointed out that the public health sector had been rather slow and/or reluctant to hire private practitioners, despite the availability of funding. Another potential area for collaboration identified by respondents was financial management expertise.

Several factors prevented the intensification of existing partnerships and the formation of new ones. The building of trust between the public and private sectors was challenging, partly because HIV/AIDS was a very political issue in the country, affecting for example, the timing of signing agreements between sectors. In addition, collaborations implied risk transfer and risk taking, and required close vigilance of agreements and unintended consequences. It was argued that the public sector did not always have the spare capacity to oversee the work of the private sector, in particular in rural areas, where partnerships were needed most. In fact, partnerships could actually add an extra burden on the already limited management and/or administrative capacity of the public sector:

> The public sector is weak enough as it is, there's very few places where it has the capacity to engage with formal contractual relationships with private. And where it has done, quite often it's come out much worse because it just hasn't got the capacity to monitor and to draw up. [Research institution interviewee]

Although a system was in place for establishing joint ventures, the political climate within the NDoH was not favourable. While there was willingness for collaboration at the technical level and from civil society, these efforts were not supported politically. The insufficient confidence over the progress of the ART rollout within the NDoH, related to the insufficient M&E systems, led to precaution or fear of the strong civil society, thus preventing managers from engaging with it. The presence of SANAC was acknowledged as bringing together a multidisciplinary team, though its role was viewed with disappointment by many participants. The development of the new HIV/AIDS Strategic Plan, however, was based on consultations and consensus-building across stakeholders and created new opportunities for meaningful collaborations.

Both provinces benefited from several partnerships, including research collaborations with academia. In addition, the WCDoH collaborated with the Global Fund, MSF, Absolute Return to Kids (ARK), and other NGOs, though it did not accept PEPFAR funding. The WCDoH was said to have successfully aligned its partners to harness their expertise according to the department's needs. For instance, ARK put up temporary buildings when infrastructure projects took too long, and provided for temporarily staff while government posts were being advertised. The WCDoH viewed these PPP as temporary pillars of the program, until the public system had built the capacity to manage those responsibilities on its own. At the time of the study, the WCDoH was taking over its partners' contributions and the number of partners was being reduced.

> We've been able to respond to human resource and infrastructure by working in partnership with other organisations, NGOs, outside which have much more flexibility. [WCDoH interviewee]

The FSDoH also had several partners, including the Catholic Relief Services, Correctional Services, Netcare, and some PEPFAR-funded NGOs delivering ART in the province. However, participants in the Free State were not content about existing joint ventures, and expressed the need to intensify partnerships: "We haven't explored that very much" [FSDoH interviewee].

F Lack of community outreach and participation

Community outreach was given credit for the resilience with which the HIV/AIDS epidemic was fought on the ground. Both provinces reported fruitful engagements with communities with regard to ART delivery. The positive impact of community participation was especially felt in the rural areas where there were wider gaps to be filled in terms of services provision. Other participants, however, were of the opinion that community participation had been constrained to too few aspects of ART, given the nature of the challenges faced.

> We still have a program where the community's role is very passive of maybe making adherence monitoring at best. Whereas if we're going to get them to scale we need to ... get community workers to be maybe monitoring therapy. [Research institution interviewee]

Moreover, it was argued that, although a full service package, including community outreach, was important, its absence should not be a reason to hold back the rollout. Some of the responsibilities placed on communities in supporting the ART program should have been taken at different levels: for example, treatment adherence should have been promoted through mass media campaigns and mass education.

> I think having community outreach will improve quality of care but I don't think it's a structural barrier to scale up. [WCDoH interviewee]

Transferring resources to communities remained a challenge. The high requirements of conditional grants hindered the participation of NGOs in this funding. At the same time, the substantial funding made available to community participation had brought about the emergence of new organisations, raising accountability issues.

G Need for social insurance schemes

For most participants, social insurance was not a bottleneck or even an issue for the current implementation of the Comprehensive Plan. Although the NDoH discussions on social health insurance touched upon the inclusion of HIV/AIDS as part of the prescribed minimum benefit, its relevance for the ART scale-up was only considered in the end. The ART rollout was still at a stage where it only reached people who themselves sought ART, and who were better off socio-economically. As the program expands to include people who are harder to reach, support in terms of insurance or grants will become a bigger issue; although the ART program is free, there are associated costs like transport, which the ART program does not cover.

7.7 Conclusion

This chapter reported on the complex web of bottlenecks and obstacles faced in increasing funding for the scale-up of ART in accordance with the Comprehensive Plan. The bottlenecks were grouped into five broad themes. For each type of bottleneck, a number of obstacles were identified. According to interviewees, the human resource bottleneck clearly emerged as the single biggest challenge, because

of the shortage of medical personnel in the public sector but also because of the misuse of skills and inadequate management. Financial bottlenecks were also very relevant, because of the combination of the laborious reporting and administrative systems of conditional grants and personnel's inadequate financial skills. The financial bottleneck had been particularly relevant during the first years of HIV/AIDS earmarked funding, but had become less so as the requirements of the grant were relaxed and officials learnt to manage the grant. Infrastructure bottlenecks were also important, created by delays in building the infrastructure required for service provision, as PDoHs worked through the DPW and depended on its procedures. Two institutional bottlenecks arose: weak M&E systems, which were not providing the necessary information to follow up on results and learn from the experiences; and inadequate leadership, as contradictory messages from top national leaders around HIV/AIDS and ART created confusion and ambivalence among professionals and the general population, thus preventing full endorsement of the program. Finally, one structural bottleneck was underscored, viz. the slow bureaucratic nature of the public system, which delayed every aspect of implementation, including the spending of funds.

When comparing the provinces, the human resource bottleneck was the most important at national level as well as in the two provinces. However, while the second most important bottleneck nationally and in the Free State was the financial bottleneck, in the Western Cape it was infrastructure. Equally, poor M&E systems were a major obstacle nationally and in the Free State, whereas for the Western Cape it was less relevant. Insufficient national political leadership was for most respondents one of the major obstacles in South Africa as a whole. Yet, the existence of committed provincial leaders, especially in the Western Cape, had been crucial in making the program succeed. These results suggest that the obstacles faced by the Free State were closer to those identified at the national level than the obstacles faced by the Western Cape.

CHAPTER 8 STRENGTHENING THE PUBLIC HEALTH SYSTEM AND ITS EFFICIENCY, EQUITY AND SUSTAINABILITY

8.1 Introduction

This chapter reports on the issues raised by respondents in relation to the impact of rapid increases in HIV/AIDS funding on the health system, and on its equity, efficiency and sustainability. As set out in the conceptual framework, these were the constituent principles of the concept of absorptive capacity, and they furthermore represent the main aims of the Comprehensive Plan. Interviewees likewise considered these issues as crucial in determining absorptive capacity for HIV/AIDS funding. Section 8.2 deals with issues of strengthening the health system. Section 8.3 explores efficiency issues, while Section 8.4 looks into equity matters. Finally, Section 8.5 discusses the sustainability challenges, and Section 8.6 summarises and concludes this chapter.

8.2 Health system strengthening

Respondents agreed that the health system had to be strengthened in parallel to the rollout of ART, and they acknowledged the importance given to this issue by the Comprehensive Plan.

> The challenge is how do you offer the service with HIV and AIDS with all these components in a way that doesn't undermine other programmes. [NDoH interviewee]

However, the varying provincial responses on this matter reflected a lack of unanimity on what was actually expected. It was argued that the ways in which HIV/AIDS funding could or should have spillover effects in the larger health system should have been made more explicit.

> Strengthen services, facilitate implementation, all buzz words. Where is the action? How do you actually do that? What do you mean by strengthen services? What are you actually going to deliver? I think the national department could actually provide more leadership on that front. [FSDoH interviewee]

It was necessary to study both the positive and negative implications of the Comprehensive Plan on the health system. On the one hand, the scale-up of ART had numerous advantages for the health system. It mobilised substantial financial and non-financial resources (human, infrastructural) invested within the health sector. These resources strengthened the platform for care provision in several ways, such as the recruitment and training of staff, the mobilisation of a new cadre of volunteers, the expansion and upgrading of infrastructure, and the strengthening of drug supply and laboratory systems. In addition, HIV/AIDS brought attention to the need to enhance health care delivery systems.

> HIV has focused the world's attention on the health system, and that must be turned into an opportunity. The best example I use is the PMTCT program and antenatal services. If you want to run an effective PMTCT program, unless you fix the antenatal services, you won't achieve that. [WCDoH interviewee]

However, the question remained as to what extent the resources invested in the Comprehensive Plan supplemented existing resources, or instead represented reallocations only from other health programs. For example, would non-HIV/AIDS health expenditure have grown more if the HIV/AIDS expenditure had not grown so much? Were human resources taken away from other health functions? Was infrastructure upgrading prioritised for HIV/AIDS facilities to the detriment of other services?

> In order to have quick disbursement it means that you need to build a parallel system. Parallel system it means that you poach staff from the public sector. For instance in Swaziland the nurses, or health workers who work in the AIDS sector are paid more than in the rest of the health service, which means that then you poach. It's normal; it makes sense that people then leave the rest of the health sector. So basically you kill the rest of the health sector. [Research institution interviewee]

The possibility that the Comprehensive Plan was deflecting funding, personnel, and attention from other health matters, implied that the Comprehensive Plan weakened rather than strengthened the health system in certain areas. The prioritisation of ART delivery over other health interventions may have overwhelmed and distorted the overall balance within the health system. In view of the above, the rest of the section will explore these potential effects in more detail.

Crowding-out expenditure

It was difficult to ascertain the actual displacement of non-HIV/AIDS specific health expenditure by HIV/AIDS specific programs. Because the health budget was influenced by many factors, it was difficult to isolate the effect of HIV/AIDS expenditure over the rest of determinants. In order to look further into this issue, it was suggested that it should be investigated at the micro level, focusing on specific resources at the facility level.

It was argued that the crowding-out of health expenditure was not a major issue in the Western Cape at that time. In this province, health funding had always grown consistently. Strong political commitment to health care existed in the province and ensured sufficient financing for health programs. Well-functioning provincial organisations such as the WCDoH and Western Cape Treasury enabled the province to attract additional HIV/AIDS funding from non-government sources. Moreover, the provincial HIV/AIDS prevalence and the resultant need for treatment were relatively small compared to the rest of the country.

The potentially positive impact of such HIV/AIDS funding on other programs was limited, even in the Western Cape, because it was largely ring-fenced through conditional grants. In addition, the pressure on provinces to spend grant allocations in a timely manner made it more difficult to plan long term. Therefore, arguments were made in favour of moving towards equitable share funding in order to ensure that the whole health system benefited from these increments in HIV/AIDS funding.

> So unfortunately, I think, the one hope that this injection of money through HIV/AIDS services would strengthen the PHC services hasn't had that ramification because of being tied to HIV/AIDS services. I think they should have made it for all PHC services. But then I expected it would have been swollen up by other silly things. [Research institution interviewee]

Other respondents discussed the potential crowding-out effect of HIV/AIDS financing from the patient's perspective. The highest burden of HIV/AIDS on the health system was on the general care services, when HIV-infected patients got sick and required health care. This burden was notably higher than that from the specific

HIV/AIDS interventions such as ART or VCT. Throughout the country, HIV/AIDS patients were crowding out non-HIV/AIDS patients in health centres. This argument underlined the constraints of looking at HIV/AIDS services in isolation from general health programs.

Moreover, both provinces reported that the rollout of ART had not brought about a tangible reduction in the burden of HIV-positive individuals on hospitals and clinics so far: "It's not really doing it at all" [FSDoH interviewee]. Personnel from the WCDoH and FSDoH agreed that they had not seen such a positive effect yet, because they did not have enough people on ART. It was noted, however, that a noticeable decrease in inpatient care for sick AIDS children had been noted in the Western Cape, but this was not replicated in adult patients. It was pointed out that the perception in the Western Cape was that the burden on hospitals had actually increased, probably because hospitals were tackling a combination of two different burdens: patients with complications who were not on ARVs, plus patients who had started on ART and experienced its complications: "We've not replaced the one burden with the other burden; the two burdens coexist" [WCDoH interviewee]. Only when all or most of the people in need were on ART would one burden replace the other, and would the positive impact on hospitals be felt. This argument supported the need to sustain the thrust of the Comprehensive Plan.

Human resources

In relation to mobilising new personnel, it was argued that, although many new posts had been created for the Comprehensive Plan, many of them remained vacant. This was illustrated clearly for the case of the Free State. A Free State interviewee referred to this phenomenon as the difference between 'real' and 'perceived' strengthening. Furthermore, when tracking down the new appointments for ART in the province, it was found that only a few of them were actually new entrants into the system: the majority of appointees had either shifted from other positions or been promoted within the public health system. This highlights the extent to which additional human resources for service delivery capacity did not materialise on the ground in the Free State. Such failure indicates the limitations of the Comprehensive Plan's implementation in strengthening the larger health system.

> They failed in bringing in new blood ... The main idea was strengthening the whole health system in the Free State. We failed there. Actually, we did nothing. [FSDoH interviewee]

The shifting of personnel in the public health system towards ART was partly due to the conditions offered to recruited personnel. Personnel recruited in ART facilities receive the same salary as any other professional employed at that level in a different program. However, what made the difference in the Free State was that professional posts were advertised for high levels in order to attract personnel, thus creating promotional opportunities within the system. For example, ART nurses hired for the program in the Free State were elevated to level 7. Thus, other nurses in the same facilities working in a different program but employed at lower levels, had an incentive to apply for L7 positions in the ART program.

> If we appoint nursing staff, we don't attract them from other provinces. It's simply nursing staff in the province that moves over to the ARV section. If you increase the salaries you just get more personnel and more empty spaces in other places. [FSDoH interviewee]

Other provinces with difficulties to attract new personnel also faced significant limitations in strengthening the system. The Western Cape, however, found it easier to recruit personnel from other less attractive and needier provinces. Yet, many of the personnel employed in ART sites in the Western Cape also came from their PHC services.

> Many of the personnel that had been employed in the ARV treatment sites, or in the ARV treatment program within the community health centres, in fact had come across from other parts of the primary care services. [WCDoH interviewee]

It was also argued that newly appointed ART personnel helped with non-AIDS work in the facility. Personnel employed for ART were also sometimes working elsewhere in the hospital or clinic, which might have had a positive impact on the larger health system. However, opinions differed greatly on the extent to which this happened or not on the ground. Whereas in some ART facilities personnel was already overburdened by existing ART patient loads, personnel in facilities attending to less patients, performed non-ART-specific tasks.

> From the beginning, they talked about strengthening of the services. So the hospital appointed three nurses. But you can go to the ARV clinic, there is one nurse. If there is one nurse. The other two are working in the rest of the hospital, in casualties, in the ward somewhere. [FSDoH interviewee]

The need to improve capacity amidst the implementation of the Comprehensive Plan was further undermined by high personnel turnover. In particular, the high turnover of managers was a major drawback.

Stronger focus on tuberculosis

Several respondents argued that HIV/AIDS policies helped to bring a stronger focus and support to tuberculosis and other diseases closely related to HIV/AIDS. The other side of this argument was that diseases not so closely related to HIV/AIDS were not prioritised.

> For disease burdens that were closely linked to HIV, it might have positive benefits. For more remote kinds of problems like chronic diseases and the epidemic of chronic diseases, that's silently emerging behind HIV, there's much less attention on that. [Academia interviewee]

Parallel systems

The aim of introducing parallel systems for ART services, such as the M&E and drug procurement systems, was to improve these programs' outcomes. However, the drawback of a parallel system is that it limits the positive spillover effect on the overall health system: "it's been like a patch on a flat tyre". In fact, parallel systems may even have eroded existing structures where staff came from the same pool. In order to use parallel services for the benefit of the overall system, it was crucial to use such systems as a transitory mechanism only and to develop strategies for their integration into the overall health platform at an early stage.

> What should have happened is that this vertical system should have gone horizontal, to try and strengthen the public health service. Instead what's happened is we've set up these vertical ARV programs .... It actually worsen[s] the situation because we've depleted human resources in other programs to staff the ARV treatment programs. [FSDoH interviewee]

Donors

Although ART international funding was substantial, donor ART programs invested little in expanding existing capabilities of the public health system.

> There's very little donor money available for general health systems improvement. It's got to be sexy. It's got to be HIV. It's got to be tuberculosis XDR [extreme drug resistant]. It can't just be tuberculosis, it's got to be XDR. [FSDoH interviewee]

Another problem was that donor funded interventions utilised capacity which was not necessarily spare, thus taking resources from the public sector. As such, South Africa was left with the difficult task of building up capacity in order to deliver health services. In particular, it was argued that donor programs were often an 'exit door' for managers wanting to leave the public sector, thus exacerbating the existing shortage of personnel, and in particular of managerial skills. In fact, two Provincial DoH managers interviewed had just moved to donor organisations, or moved to these during the research:

> There are a whole range of senior managers that went to PEPFAR ... and it's that level of management capacity you need if you want to spend money, and it's been just depleted by donor funding. [FSDoH interviewee]

PEPFAR funding especially was given as an example of the restrictions attached to donor funding, noting that PEPFAR funded only HIV/AIDS treatment initiatives but not prevention initiatives.

Guarding the right balance

An official from the NDoH emphasised that health system strengthening was much more complex than normally considered. Strengthening was not merely a process of adding more resources, but more importantly, it was about maintaining the right balance between its several components. The health sector was a powerful sector, which mobilised substantial funding and had several associated lobby groups, such as pharmaceuticals, laboratories, universities or tertiary hospitals. Given this context, a substantial increase in budgets, such as the one driven by the Comprehensive Plan, attracted the attention of these lobby groups, who wanted to direct this expenditure towards their side.

The approach to health system strengthening in terms of balancing its components looked at the control of the financing flows, and at who was getting what from the budget. In order to defend the most appropriate balance for the health system, strong managers were required to take firm positions amidst the conflicting interests. These managers needed to understand which players were involved and the way in which 'the game was played'. Therefore, from this point of view, the core factor for strengthening the system was a very strong strategic capacity to ensure that the balance was not distorted. It was argued that this strategic knowledge was eroded by the high turnover of managers.

> System strengthening basically means that you've got the interdependence of the system components as important; otherwise you were not doing system strengthening. If the balance was not there then the system was not strengthened. [NDoH interviewee]

Such a view highlights the inappropriateness of those indicators often used to assess the strengthening of the health system, such as budget increases and capacity building within specific interventions. For example, substantial increases in laboratory budgets were often mentioned as an indication that the health system was being strengthened. However, from the above point of view, this could also suggest a distortion in the balance, which could happen when the increases were driven not so much by necessity but rather by the pressure of interest groups.

In fact, it was mentioned that the space taken by the drug and laboratory components in the Comprehensive Plan might have grown too far. Despite the fact that ART was a drug-intensive program, these components might have grown too much financially when compared to standards and other interventions, as well as in relation to the comprehensive activities envisaged in the Comprehensive Plan.

Balancing positive and negative effects

Respondents were asked to strike a balance between the positive and negative effects of the HIV/AIDS program on the overall health system. Most participants found this question difficult to answer, given the multitude of considerations involved and also

because very little was known on what was actually happening on the ground. For some respondents, the Comprehensive Plan had not had massive distorting effects on the ground yet. The burden of the epidemic on the health system was so high that relieving it through ART or any other intervention compensated for the costs of the negative effects on the wider health system.

> AIDS was distorting the health system so fundamentally, that actually we had no option but to treat it as a kind of special case, in a way. [Research institution interviewee]

For others, nonetheless, the opportunity cost to the health system of ART outweighed its benefits. The catastrophic scale of the HIV/AIDS epidemic in South Africa made it impossible for the country to manage the epidemic without taking resources from other areas. There was not sufficient capacity to respond to the HIV/AIDS epidemic without having a significant negative effect on the rest of the system, not even in the best case scenario, such as in the province of the Western Cape. For this province, it was estimated that, broadly speaking, around one quarter of all PHC visits and hospital admissions would be HIV-related by 2010 [WCDoH interviewee]. Even if all the required financial and human resources were available, the public health sector still would not be able to expand to the scale needed in the short term, and it would also not be desirable to skew the whole health system towards the epidemic, to put for, example, ART ahead of diabetes treatment.

Striking the balance therefore between tackling the epidemic and simultaneously investing in the overall health system, was difficult. Nonetheless, interviewees agreed that maintaining parallel systems would become counterproductive in the end, and that it would be more beneficial to integrate ARV treatment programs within chronic disease management programs at the PHC level. Moreover, the beneficial effect of the implementation of the Comprehensive Plan on the wider health system depended on the existence of proactive management capacity and leadership to harness available resources and to monitor the side-effects of the implementation. Empowerment at the implementation level was also crucial to take decisions based on the particular challenges and strengths of each specific context.

8.3 Efficiency

Most respondents noted that not enough was known about the efficiency of the Comprehensive Plan and its multiple aspects. Even interviews with government officials provided little specific information. Understanding the value for money of the funding invested in the program remained a big challenge. Respondents' took different perspectives on efficiency, from allocative to technical efficiency[73], as reviewed below.

Allocative efficiency

Claims were made that, in general, insufficient information was available to correlate finances to outputs to costs. Although there were regular financial reports and audits on the program, and in particular on the spending of the conditional grant, information was insufficient to reflect the full picture of the efficiency of the program: "we are not yet there" [NDoH interviewee]. In addition, the discretionary funding devoted to HIV/AIDS related areas was not easy to track. Several factors hampered the attempt to determine the allocative efficiency, including: (a) financial managerial capacity is insufficient to manage the conditional grant; (b) high centralisation of funding prevented financial responsibilities by the spending institutions; (c) staff wages were increased in order to maintain and recruit personnel, but the extent to which these salary increases translated into efficiency increases was a concern; (d) pressures to spend quickly compromised good spending.

Technical efficiency

Opinions converged in that the numerous requirements for the accreditation of ART delivery sites ensured that the accredited services were equipped with high quality staff and supporting systems. Moreover, it was questioned whether such high standards were actually necessary. It was suggested that some of these standards be changed or lowered in order to scale up the program, such as shifting to a nurse-led

[73] Allocative and technical efficiency are explained in the development of the concept of absorptive capacity in Chapter 3.

mode of delivery. For the particular case of the Free State, the province was said to have under-performed, given the staff employed in the program: "we can do much better with the staff that we have" [FSDoH interviewee]. This was partly because staff employed per patient varied considerably depending on the density of patients in the area.

A particular aspect of technical efficiency was clinical efficiency, which related to the efficiency of the ARV treatment. Clinical efficiency was understood to encompass a variety of outcomes such as adherence rates, virological and immunological response, treatment side-effects, drug resistance, and mortality rates. The treatment efficiency of the programs was believed to be very high in terms of adherence rates in particular for the two provinces studied. However, it was recognised that virological and immunological response, as well as treatment side-effects and drug resistance were hardly studied nationally. The Western Cape seemed to be more closely following side-effects and drug resistance, but only at some sites. Concerns were also raised about the quality of counselling and social support provided. Counselling and social support were crucial for helping patients to cope with the disease and with the needs and effects of the medication, which had an effect on their quality of life, as well as to improve with program retention and treatment adherence rates.

Particularly worrisome was the high mortality among HIV-positive individuals who had enrolled on the program but were not yet on treatment, either because they did not qualify, or because they were on the waiting list. The information provided by the Free State in this regard suggested that the system was failing to care for this group. Thus, although the clinical efficiency of patients on ART might have been high, the clinical efficiency of the program overall was much lower.

Pressures compromising quality

Interviewees were asked whether the pressure to spend funds quickly and to scale up ART in accordance with the targets of the Comprehensive Plan affected the quality and appropriateness of the services provided. There was overall concern about the detrimental effect of speeding up processes on quality, in particular with the

pressures to spend the conditional grant: "The moment you apply pressure on any grant to be spent, the people spend it on stuff that's not necessarily part of the business plan" [FSDoH interviewee]. However, it was not easy to track the impact, because (a) at the time of the research, the program was still too young, and there was insufficient information to evaluate program outcomes, including quality; and (b) existing M&E systems were not geared towards assessing the quality and appropriateness of service delivery. Thus, although the government assessed budget spending performance, further evaluations should put more emphasis on monitoring the quality of spending.

> Every time they tell us we've got millions of rands, we have to spend it. Tell us what you want. Then we say we need filing cabinets, we need telephones. Then, sooner or later, at the end of the financial year they say we are in trouble, we did not spend the millions. Now all of a sudden, buy lots of stuff; then the people buy TVs, water dispensers. And I say what happened to the telephones we need? We still haven't got the telephones. [FSDoH interviewee]

Furthermore, some respondents argued that in some cases the increasing workload in a facility compromised the quality of services provided. In addition, the envisaged decentralisation of ART provision towards PHC and less accessible areas was expected initially to lower the overall quality of services provided.

8.4 Equity

Overall, the sense was that, despite the recognised aim of the Comprehensive Plan to redress inequalities in health care, in practice the implementation was not diminishing the differences across provinces as much as it could. Promoting equity in the ART rollout faced numerous challenges due to capacity constraints in rural areas with a high HIV burden.

Inter-provincial equity

Overall, participants felt that allocation of financial resources contributed towards inter-provincial equity. However, the actual benefit derived from such allocations by disadvantaged provinces was hampered by the presence of strong obstacles to absorptive capacity. The traditionally disadvantaged provinces faced the most

serious obstacles preventing the absorption of funding. Thus, what was needed was to harness funding to aid disadvantaged provinces to absorb and benefit from the allocated funding.

Resource allocation formulas for equitable shares and conditional grants were designed to seek an equitable distribution of funding across provinces. It was argued that equitable allocation mechanisms needed to take into account the capacity of the provinces to absorb funding. Although traditionally disadvantaged provinces needed extra resources in order to address backlogs in capacity, it was also important to look at the speed at which they could absorb funding. This balance was sought via the business plans, by which provinces estimated how much funding they would need and would be able to use.

Many participants felt that not enough support was given to traditionally disadvantaged provinces in order to build capacity while delivering services. These provinces needed not only funding, but also additional support mechanisms to help them set up functional health systems. In addition, because the conditional grant was not used for capacity building[74], it was left to provinces to use their own resources for this purpose, which some provinces were unable to do because they were already short of resources.

Equity of rural-urban allocations

All respondents recognised the wide rural-urban divide existing in the country, and the serious challenges it posed for the most rural provinces, such as Limpopo and the Eastern Cape. A major challenge was to attract qualified human resources to work in the rural areas, which were less attractive, especially for highly qualified personnel. Even though posts were created in rural areas and a rural allowance was provided to attract personnel, these posts often remained vacant. A participant of the FSDoH illustrated the challenges faced:

[74] As discussed in Chapter 7, although the HIV/AIDS conditional grant could have been used for capacity building, this was often not done because of confusion and insecurity among provincial managers in this regard.

> People don't want to go to the rural areas where they must travel 30km just to get Kentucky. They don't want to go there ... The other challenge was that you get a person willing to go. They struggle for three months to get accommodation and they leave after three months because there was no decent accommodation for them. [FSDoH interviewee]

Access issues were believed to be more problematic in rural settings than in urban ones. Travel distances to the nearest health centre were larger, due to the combination of low population density and fewer ART sites. Limited transport in rural areas further hampered access to health centres. These access issues such as transport were difficult to tackle because they did not depend on the DoH.

Scale-up in provinces with the lowest capacity

Interviewees were asked whether they thought the Comprehensive Plan could be successfully scaled up in provinces with the lowest health service delivery capacity. Most responses agreed that this was not possible with the current implementation patterns. The high criteria for the accreditation of ART facilities made it very difficult for rural provinces to open treatment sites. There was a consensus that further scale-up would require a decentralisation of ART service points to PHC facilities, as well as a move from a doctor-based to a nurse- or team-driven ART delivery program. In addition, wider involvement of communities at the local level was needed, especially in the most remote areas. It was felt that existing work along these lines was insufficient for a full scale-up of the program in less resourced provinces.

Equality

It was argued that the Comprehensive Plan was more centred on equality than equity[75]. The national policy aimed to ensure that every district, and later on every sub-district, had at least one ART accredited site. This objective was criticised for not taking into account the HIV/AIDS prevalence in an area. For instance, interviews in the Free State revealed substantial differences in patient workload across facilities, depending on HIV prevalence and population density. Consequently, whilst some

[75] The difference between equity and equality is explained in the conceptual framework in Chapter 3.

facilities struggled to cope with the high demand for ART, other facilities were under-utilised. This situation questioned the very equality principle pursued in the Comprehensive Plan, which ultimately affected the equity of the services offered in each area.

Access by whom

Some participants acknowledged the existence of current discussions and studies looking at who was accessing treatment in terms of their socio-economic profile. Interestingly, both the Western Cape and the Free State had proportionally more women than men accessing treatment. Patient profiles, however, varied from case to case. For example, those accessing ART in certain townships in the Western Cape were actually among the poorest of the poor, with lower asset indexes than the general population of the particular township. These cases showed that it was possible to reach especially the poor or disadvantaged population through the ART program. Research in the Free State, however, suggested that there might have been a sort of socio-economic stratification or rationing taking place at the ART service provision point, favouring those with more stable and reliable socio-economic conditions.

Efficiency vs. equity trade-off

The opinion of interviewees was sought in relation to the efficiency vs. equity dilemma: as the main objective of government was to have more people on treatment, strategically it made sense to invest in those provinces with a comparative advantage for delivering this service, those that already had the capacity, and those facing high, concentrated HIV burdens. Nevertheless, this would have undermined the equity principle of investing in those provinces with lower capacity that needed extra support in order to ensure the provision of services, and to pursue equity in the delivery.

At the same time, concerns were raised that the budget of provinces such as the Western Cape, which were able to increase the number of patients on ART, should not have been reduced with the intention of equalising budgets across provinces.

Such a strategy would not be efficient and it would have cut opportunities for patients to access ART.

Some participants tackled this dilemma by conceptualising the notion of efficiency somewhat differently. Efficiency needed to be understood in relation to what the government aimed to achieve, i.e. the main objective of the Comprehensive Plan. In the case of South Africa, the government had a strong commitment to facilitate equitable access to services. From such a perspective, therefore, efficiency meant producing equitable access to health services (rather than merely providing more services). Thus, rolling out ART services only in the most productive provinces, such as the Western Cape and Gauteng, would have been neither equitable nor efficient.

Therefore, the answer to whether efficiency was compromised by equity concerns, or vice versa, depended on the definition of efficiency taken. In a strict sense, yes, more people could have been put on treatment if no equity considerations had been taken into account. However, in a broader sense, the efficiency of ART consisted of equitable service provision, and thus, ensuring equity issues were taking into account reinforced, and not undermined, the efficiency of the program.

Public and private

The gap between the public and private sector resources was a major root of inequality in health care, and the biggest concern for some interviewees. As discussed earlier in the chapter, the private sector attracted most medical personnel, leaving a chronic shortage in the public sector. Salaries varied greatly between both sectors. Moreover, low job satisfaction and unsatisfactory working conditions in the public sector led workers to seek employment in the private sector, which generally provided greater job satisfaction and working conditions that were more satisfactory.

Those same issues created challenges for PPP, because the public sector could offer few incentives to private practitioners to collaborate in public programs.

> The way you remunerate session doctors they can only do it for the good cause and goodwill, because the public sector cannot pay as much as they could make in the private one. [FSDoH interviewee]

8.5 Sustainability

The opinion of participants was also sought in relation to the challenges and opportunities for the sustainability of the program. The major factors touched upon are summarised below.

Sustainability of funding

Most participants recognised that financial sustainability was not such a big issue as it was for other African countries, mainly because the Comprehensive Plan was primarily funded through domestic resources.

> First of all, South Africa compared to other Sub-Saharan countries, the major major difference, as it has implications for everything (for policy issues, for dealing with stakeholders in the country, for implementation issues) is that the money is coming from South African taxpayers. All the other Sub-Saharan countries, the major part is coming from the donor community. So, compared to other Sub-Saharan countries, at least the money, which is made available from own resources is outstanding. [International organization interviewee]

Nevertheless, other concerns were voiced in relation to (a) possibly increasing costs, and (b) uncertainty of sufficient increases in funding.

Firstly, some participants raised concerns about the future cost of the program. As the program scaled up, financial needs would grow accordingly. Major cost drivers of the ART program, such as personnel, drugs and laboratory tests, required significant recurrent funding. In addition, there was insufficient information and estimates on the future cost of ART delivery. Furthermore, a full scale national program would change some of the projection parameters: especially as the program was decentralised to PHC levels, further investments in service delivery capacity were required. Given economies of scale, some respondents expected drug costs to decrease as more people enrolled in the program and with the greater availability of generics. Conversely, others expected drug costs to increase as more people would

need second and third line treatments, which were three to four times more expensive than ARVs used in first line treatment. It was argued that even for countries like Botswana, who had implemented a full national ART program for much longer, not enough was known on the evolution of costs and expenses.

Secondly, despite the general satisfaction with current levels of funding, the availability of future funding was a major challenge for many respondents, for some even the biggest challenge. Many participants expressed concerns that HIV/AIDS funding had lost its momentum, with massive expenditure increases required to start the program quickly not materialising in future years. Other competing priorities, in particular the 2010 World Cup preparations, were likely to constrain the funding capacity of Treasury for social programs.

> The only thing that stops us on infrastructure at the moment is the capacity of the private sector to deliver simply because we've got the soccer World Cup coming at the moment ... that's stretching to the limits the resources of this construction industry. [WCDoH interviewee]

Moreover, available funding also depended on how much the economy would grow as a whole. Given this context, some participants expressed the difficulties of making long-term commitments based on the 3-year budget cycle of the MTEF. The insecurity around the long-term sustainability of the necessary significant increases of funding was identified as a factor leading to conservative approaches to financial management. Hence, it was important to ensure budget commitments over longer periods in order to guarantee that HIV/AIDS financing would not be affected by unforeseen events.

For other respondents, however, the clear commitment so far of National Treasury to fighting the epidemic served as a reassurance of its willingness to maintain expenditure levels in the future. Most respondents expressed confidence in Treasury to maintain current funding, but less so in expanding funding to match growing treatment targets. Hence, the massive scale of the epidemic and the need to keep expanding funding emerged as critical challenges for the future financial sustainability of the Comprehensive Plan.

In relation to the modalities of delivering funding, the equitable share mechanism was considered more sustainable in the end, because it facilitated the utilisation of funding for the strengthening of the health system, the discretionary administration of expenditure by provinces, as well as the integration of the HIV/AIDS program within the larger PHC system. In fact, it was argued that some provinces increasingly used part of their equitable share funding for HIV/AIDS related activities. Suggestions were made to start shifting some core areas of the Comprehensive Plan gradually out of the conditional grant and into discretionary funding via equitable shares. PMTCT was identified as one of the areas to shift first, as it had existed longer and could be integrated into the same funding stream as antenatal care. Leadership at both national and provincial levels was considered central to ensuring the financial sustainability of the program in the context of these changes.

Western Cape innovation

The Western Cape provided an innovative example of how to provide for sustainable funding. The province started to make arrangements to ensure the maintenance of funding inflows after the Global Fund grant expired. The WCDoH proposed that the Global Fund spread the grant over four years instead of the initial three. During this period, one of the sites funded would be taken off the grant program each year, and financed through the national conditional grant funding stream. This meant that in the fourth year, one site only would be funded by the Global Fund, and that this site would become publicly funded in the fifth year. The WCDoH would continue to report to the Global Fund on those five sites to show that activities continued with government funding.

Consequently, the WCDoH requested the Provincial Treasury to commit funds to those patients coming off the Global Fund grant. Increases in the conditional grant to match this plan, which amounted to R150 million, had already been affected at the time of this research. This strategy ensured a gradual and smooth transition from donor funding to regular government funding. The Global Fund accepted this proposal during the course of this research.

Human resources

As discussed in Chapter 7, the limited availability of human resources had so far hampered the spending of funding and the implementation of the program. Thus, actions to remove these obstacles were critical for the sustainability of the program. Respondents pointed out the need to invest in the production of additional medical professionals and in the training of existing health workers and related staff. In addition, the need to move from a doctor-based to a nurse-driven delivery of ART was underscored as a fundamental condition to sustain the program in the future.

> To me the critical thing is staff. That's going to be the limiting factor [to sustainability]. [FSDoH interviewee]

Fast speed vs. sustainability

Respondents expressed concerns that the ambitious targets for patient numbers set in the Comprehensive Plan, together with the political pressures to achieve them, had rushed the commencement and pace of the program. Fast implementation may have overlooked the negative effects on the health system and the long-term sustainability of the program. It was argued that fast spending was not necessarily the best spending in the context of sustainability. Particularly because ART was not a once-off emergency but rather a life-long treatment, the issue of sustainability was crucial.

> There was the problem that AIDS and the way this money was given looks at emergency as if emergency means quick and short, as if it was a fire. But the problem was the fact that it was an ongoing emergency. It means that the issue of sustainability had to be addressed in a very different way from a national disaster, a tsunami. [Research institution interviewee]

Several participants emphasised that the right speed of increasing funding depended on the balance between the need to roll out the program quickly, at the same time as making it sustainable in the end. However, to achieve such balance on the ground might have meant that the process would not move as fast as some desired. Quick disbursement was a sign of success and it allowed access to future funding. Furthermore, quick implementation was urged, given the late start of the treatment program and the magnitude of the epidemic. Several stakeholders exerted pressures

on PDoHs to spend and implement quickly, both internally (from NDoH) and externally to the health department, such as from politicians, civil society and donors. It was also noted that sustainability concerns could only be taken into account in decision-making if there was sufficient ownership of the program.

> My concern is ... is the sustainability of these fast growing programs is not sustainable in the long term. The wheels are going to come off somewhere. [FSDoH interviewee]

8.6 Conclusion

This chapter reviewed the implications that the scale-up of funding for the Comprehensive Plan, in combination with the presence of obstacles to absorb such funding, will have for the strengthening of the health system, and its efficiency, equity and sustainability. Research revealed that, although there was great concern among respondents on these areas, very little concrete evidence was available as to what was actually happening on the ground. Yet, reflections on the early years of the Comprehensive Plan's implementation did reveal numerous concerns on these matters. It was suggested that under current arrangements, the Comprehensive Plan was unlikely to achieve future treatment targets in the desired system-supportive, equitable, efficient, and sustainable way. In order to adapt to the challenges identified, the research points at several ways in which current financing mechanisms as well as implementation modes could be revised, which will be further discussed in Chapter 9. Overall, the evidence underscores the need to monitor closely the scale-up of the Comprehensive Plan to ensure that its core principles are not lost in the process.

CHAPTER 9 DISCUSSION OF FINDINGS

9.1 Introduction

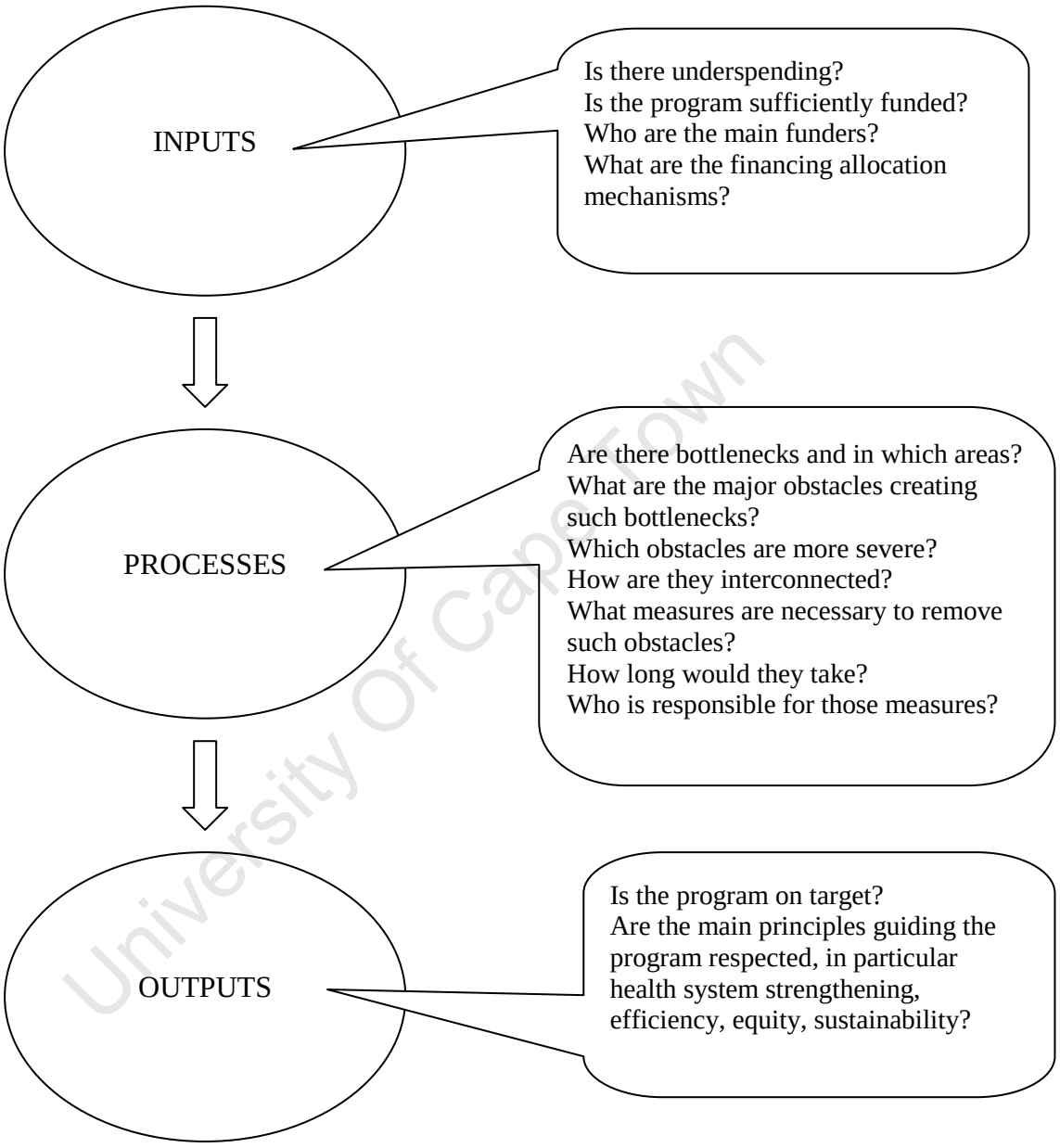
This chapter summarises, discusses and takes forward the study findings presented in Chapters 6, 7 and 8. Section 9.2 builds on the characterisations of absorptive capacity emanating from the study to provide a tool to assess absorptive capacity, which could be replicated for other health interventions. Section 9.3 classifies the obstacles to ART funding and implementation into three categories according to their perceived severity, as noted by respondents, and then compares these obstacles with those in Table 3.2 (page 58), before discussing commonalities and differences between the two provinces and national level. Then, overall strategies and specific recommendations to remove the bottlenecks encountered are proposed in Sections 9.4 and 9.5 respectively, based on the suggestions made by respondents themselves. Section 9.6 draws conclusions from these findings.

9.2 Reflections on the concept and assessment of absorptive capacity

How do the study findings advance our knowledge on absorptive capacity? The framework of study and the data gathered have proved useful in clarifying the core issues at stake: (a) South Africa's public health system does have problems of insufficient absorptive capacity for the available HIV/AIDS treatment funding, and (b) several obstacles have been identified that create bottlenecks in areas where funding does not flow.

The operationalization of the definition of absorptive capacity by means of this study generates a tool to assess absorptive capacity, which could be replicated in other studies. In particular, this tool could be useful for other public health programs. It could guide a comprehensive analysis of the determinants of absorptive capacity. The objective is not to measure absorptive capacity *per se*, but rather to elucidate the problems around it and thus to arrive at potential solutions. This tool is illustrated in Figure 9.1.

***Figure 9.1*: Tool to assess absorptive capacity**



The tool to assess absorptive capacity that originates from this research consists of a list of questions divided into three phases. The first phase refers to the inputs, that is, the expenditure invested in the program. It does not need to refer to substantial and sustained funding increases as it does in this particular thesis; absorptive capacity problems could also be present in a context of non-increasing funding. In this phase, it is particularly important to investigate the financing sources and allocation

mechanisms. A crucial question is whether there is underspending or not. However, although budgets may not reveal underspending problems, this does not guarantee a lack of spending difficulties.

The second phase refers to the processes, that is, how funding is translated into outputs. This phase investigates whether there are obstacles impeding the utilisation of funding, and it identifies where bottlenecks are created. This identification should also consider their level of severity, in other words, whether these obstacles hold back the program, what options there are to remove them, and who should be responsible for such changes. The evidence of this particular research suggests that the transformation of financial resources into program results is very much a managerial decision, and not merely a financial one. Thus, program managers, and not only financial officers as initially thought, are critical for absorptive capacity.

The third phase refers to the outputs. Outputs are not only the specific targets of a health intervention, but also the guiding principles behind that intervention. In the case of South Africa, these principles were the strengthening of the health system, equity, efficiency and sustainability. But these principles may not apply to other contexts, where, for example, an emergency health intervention needs to be carried out irrespective of its effects on the health system. It is worth noting that this third phase deals with outputs and not with outcomes, which belong to another phase beyond the diagram. The extent to which inputs translate into outputs does not seem to be affected by the absorptive capacity of expenditure invested.

Therefore, this guiding framework for assessing absorptive capacity goes beyond an expenditure review, and beyond a program evaluation. Although it takes into account those elements, it adds other considerations in relation to the funding agents and recipients, their relationships and allocation mechanisms used. It also brings into the equation the overarching principles behind a program, which should be considered upfront when establishing the adequate speed of scaling up funding. This holistic assessment makes it possible to look for solutions beyond the injection of funding. Critical measures to remove bottlenecks may instead involve the transformation of structures and relationships between stakeholders.

Another comment to be made is that absorptive capacity is different to health service delivery capacity, although they do overlap in many areas. This research shows that absorptive capacity for HIV/AIDS treatment funding goes beyond the capacity of the public health sector to provide services, medical personnel, infrastructure, and so on. It highlights the importance of the financial mechanisms employed to transfer the funding, as well as the relationships between stakeholders, including those outside the public health sector. In particular, the research found that absorptive capacity was greatly constrained by inadequate national political leadership, which hindered efforts at the implementation level. This distinction is important because it reinforces the usefulness and importance of studying absorptive capacity in a holistic way, instead of looking only at health system capacity.

Another important consideration is whether there is an ideal speed for increasing funding for a given health program. This study shows that respondents had different views on what the adequate speed of budgeted increases should be in relation to ART. The accomplishment of immediate targets by placing more people on treatment demanded a quick disbursement of funds. However, longer term objectives in terms of strengthening the health system and sustainability of the program called for more gradual spending of funds. Thus, the ideal speed for increasing and absorbing funding seems to lie in balancing both short- and long-term objectives.

9.3 Discussion of major obstacles

Which of the obstacles identified are more serious? It is difficult to rank obstacles according to their severity due to the qualitative nature of the study. Nevertheless, it is possible to classify obstacles into three groups depending on whether they were identified by respondents as (a) relevant obstacles which held back the program; (b) relevant obstacles which did not hold back the program; and (c) irrelevant obstacles. This classification is shown in Table 9.1 overleaf. This table summarises the results of the study for South Africa, the Western Cape and the Free State together because most underscored obstacles were common across both provinces and at the national level, though with some exceptions discussed later in the section. This implies that, for example, infrastructure is included as a bottleneck that holds back the program

because it featured strongly in the provincial interviews, although at the national level it was not identified as such.

Table 9.1: **Obstacles to the spending of ART expenditure in the South African public health sector, classified by their relevance**

Bottleneck	Obstacles holding back the program	Obstacles not holding back the program	Neutral or positive factors
Financial	Conditional grant reporting requirements highly demanding Weak financial management capacity Mismatch between DoH requests and Treasury allocations	No HIV/AIDS spending specification of equitable shares Insufficient reliability, predictability and coordination of funding	Impact of fiscal policies on health spending
Human	Shortage of pharmacists, doctors, nurses Inadequate program managers Poor human resource practices	Inadequate use of lay counsellors and home-based carers	Availability of data capturers and administrative clerks
Infrastructural	Insufficient clinic/hospital space	Lack of storage space for drugs	Laboratory infrastructure
Institutional	Poor M&E information systems Inadequate national political leadership	Weak drug and medical equipment procurement systems Need for integration of HIV and tuberculosis services	Existence of successful pilot studies
Structural	Slow government bureaucratic system	Issues of access: cultural barriers, stigma and transport Need for PPP	Ownership of decision-making Community outreach and participation Social insurance schemes

Table 9.1 shows a few variations from the original Table 3.2 tested in the study, in addition to the classification into three groups according to their severity:

- The insufficient reliability, predictability and coordination of funding featured as a structural bottleneck in Table 3.2, but these issues were reclassified into the financial bottleneck category. The reason for classifying them as a structural bottleneck in Table 3.2 was that it related to donor issues, and hence was beyond the scope of the public health system. However, the fieldwork results showed that these funding issues were instead related to domestic financing factors, and thus were more appropriately classified as a financial bottleneck.

- Table 3.2 distinguished between medical and non-medical staff, but this classification did not add any value during the study and was somewhat artificial, as program managers, for example, fell between the two categories. Therefore, each staff category is treated independently in Table 9.1.

- 'Inadequate personnel management and training' has been rephrased as 'poor human resource practices', to better reflect respondents' perspectives.

- Home-based care workers were not included in Table 3.2 but discussed extensively by participants, and therefore this group was added to the results table.

- The word 'inadequate' replaced the word 'shortage' in relation to counsellors and program managers, as the issues related to these staff categories related more to quality than to quantity.

- 'Inadequate use of lay counsellors replaced 'inadequate lay counsellors', to better reflect respondents' perspectives.

- 'Inadequate political leadership' refers specifically to the national level, as provincial leadership was satisfactory.

The following parts of this section will first explain further the categorisation of obstacles into the three groups. Thereafter, general considerations of these findings will be discussed, and, finally, the commonalities and differences across provinces and at the national level will be explained.

A Classification of obstacles into three groups according to their severity

The first group in the results table is comprised by the obstacles considered to hold back the financing and implementation of the program. These are the more serious impediments for the ART program, those that actually impede progress, and thus those that definitely need to be removed in order to unblock the bottlenecks. Most obstacles in this group are financial and human.

The mismatch between DoH requests and Treasury allocations was also classified as a major obstacle holding back the program because early underspending was partly caused by DoH's over-budgeting and the willingness of Treasury to fund HIV/AIDS programs.

It is worth noting that only one out of the six structural obstacles was considered to be holding back the program, namely the slow government bureaucratic system. This suggests that, overall, the most important obstacles impeding the scale up of funding for ART fell within the responsibility of the NDoH and PDoHs. Hence, these Health Departments had the authority to control and tackle the major impediments to the spending and implementation of the ART program. Two clarifications, however, are necessary. Firstly, financial bottlenecks are not completely under the control of the NDoH and PDoHs but also part of Treasury's responsibility. Secondly, inadequate national political leadership, although classified under institutional bottlenecks, also referred most importantly to the leadership by the President of the nation, and thus fell outside the Health Department's territory.

The second group of obstacles are those that affected the ART program but that did not hold it back. These obstacles made it more difficult to spend funding and implement the program smoothly, but were not regarded major impediments, either because people found ways around them, or because their effect was not considered

substantial. These issues were, for example, the lack of storage space for drugs and issues of access.

This second group of obstacles also includes factors, which were not considered major obstacles, but viewed as areas where some improvement would benefit the program substantially. For instance, although drug and medical equipment procurement systems were considered to be reasonably good, significant improvements could have resulted from making tender processes for ARVs faster and more flexible, and from managing ARV drugs below the adopted Schedule 6. Equally, despite the acknowledged numerous PPPs related to the Comprehensive Plan, there were not enough such partnerships, given the substantial capacity of the private sectors in the country. As another example, the emergence of a new category of lay counsellors and home-based care workers was a new form of capacity, which could have been improved by more training and supervision.

Included in this second group are also those obstacles, which were believed to be important, though their precise effect was not known. In a way, these obstacles are included in this group by exclusion, because they were not regarded as major bottlenecks holding back the program, nor were they irrelevant. These factors include, for example, the lack of HIV/AIDS specification of equitable shares, because interviews revealed insufficient knowledge of how much of the HIV/AIDS toppings on equitable shares were actually spent on HIV/AIDS. Another example is the need for integration of HIV and tuberculosis, about which, despite it being recognised as crucial, not much was known about existing practices and its implications.

The third group comprises obstacles, which were disregarded for not being detrimental in the South African case. Some of these obstacles were not seen as relevant, such as the potential restriction of fiscal policies on health spending or the shortage of data capturers and administrative clerks. Furthermore, other obstacles in fact came up as strengths or enabling assets for the program, such as, for instance, the existence of substantial pilot studies and the community outreach and participation. Therefore, these potential obstacles in Table 3.2 have been rephrased

in a neutral or positive way. For example, Table 9.1 refers to the availability, rather than shortage, of data capturers and administrative clerks.

B General considerations

The divisions among the three groups are nonetheless not always clear. Firstly, responses did not always converge; for instance, inadequate political leadership was for most respondents a major bottleneck holding back the program, whereas other respondents did not find it problematic. Secondly, the distinction between obstacles that held back the program and ones that did not, was not always made clear by respondents. Given the way in which the interviews were conducted, it was easy for respondents to list problems encountered; all areas could be improved in one way or another. However, the difficulty lay in ascertaining which problems were responsible for preventing the spending of available funding. This is why this study's aim to discern between the obstacles holding back and not holding back the program, the first and second group, is particularly valuable.

In addition, these obstacles were interconnected. Leadership was depleted by insufficient human resources and inadequate personnel management. The lack of financial officers made it difficult to comply with the high requirements of the HIV/AIDS conditional grant. The slow government bureaucratic system delayed personnel recruitment and compliance with the conditional grant requirements. Equally, the inadequate M&E systems undermined the capacity to show progress on the program and support budget bids. This interconnection means that what is needed is to tackle all these factors and not just some of them.

This classification referred to the obstacles encountered up to the time when the interviews took place. It was noted that some of the obstacles, which at the time were regarded as irrelevant or not holding back the program, were believed to become more relevant in the near future. For instance, fiscal limitations over health spending were believed to represent a potential future obstacle due to the funding needs of the preparations for the World Cup in 2010. Access issues were also believed to become more important as ART sites expanded. In addition, some of the

issues considered not relevant overall, were nonetheless reported as being important in rural areas, such as, for example, inadequate laboratory infrastructure.

Many of these obstacles were not specific to the ART program but common across the public health system, although some may have affected the ART program in particular for several reasons. For example, although the shortage of medical personnel was said to be endemic throughout the public health sector, the shortage of pharmacists was felt particularly in the ART program due to the intense use of ARVs. Although a high turnover of personnel was common throughout the public health sector, burnout among HIV/AIDS program managers was especially high due to the controversies attached to the disease and the lack of political support for the ART program. The drug tender processes affected the ART program especially due to the intense use of ARVs and the high cost of drugs. Although it was recognised that weak M&E systems were prevalent throughout the health system, they were a major drawback for the ART program because they led to confusion around the progress of the program rollout, which was especially detrimental given the political controversies around the ART program. The bureaucratic nature of the public system affected the whole public health sector, though it may have been more relevant for the implementation of ART because of the high requirements it had to comply with in relation to the HIV/AIDS conditional grant and the high standards for accreditation of ART sites.

C Comparison of the national level, the Western Cape and the Free State

Most severe obstacles were common across both provinces as well as at the national level, though with some exceptions and nuances. The human bottleneck was underscored as the most important bottleneck throughout South Africa, including in both provinces studied.

Both the Western Cape and the Free State were better-off than South Africa at a national level on several fronts. Both provinces were further ahead than the rest of the country in terms of their M&E systems, which meant that they were able to provide substantial information for this research. Yet, the paper-based system in the Western Cape was praised as more appropriate than the more complex electronic

system of the Free State. Provincial leadership was clearly more satisfactory in both provinces, especially in the Western Cape, than national leadership. Lastly, both provinces benefited and had a positive attitude towards donors' contributions, whereas the attitude of the NDoH was not clear.

Comparing both provinces, the obstacles confronted by the Free State resembled more closely the national ones, whereas the Western Cape stood out in that it was not affected by some of the obstacles confronted at national level and in the Free State. For example, the financial bottleneck emerged as the second most important obstacle for South Africa, and in the Free State in particular, although it was not so important in the Western Cape. In fact, the high requirements of conditional grants were not a problem in the Western Cape at the time of the study because the WCDoH had the financial capacity to deal with the requirements of the grant, even at the district level. These differences related directly to the employment, or absence of, financial officers to deal specifically with the HIV/AIDS conditional grant. The appointment of the relevant personnel indicates the determined leadership of the Western Cape in taking action to overcome the identified obstacles, though it is also important to acknowledge that the Western Cape was more capable of hiring professionals.

The Western Cape showed the biggest concerns for funding cuts. The province was already under budgeted given their capacity to treat more people and to manage larger funds. In addition, the province showed the greatest concerns about the financial limitations posed by the World Cup 2010, especially in the area of infrastructure, probably because of the strong participation of this province in the event.

The bottlenecks faced in the Western Cape also relate to a second set of obstacles, which arose after a few years of implementing ART, as the program in this province had been running longer than in the rest of the country. This is important because if this is the case, the Western Cape example could warn of bottlenecks that other provinces may experience in the near future, such as infrastructure, which was the second most important bottleneck in this province.

9.4 Strategic options to remove bottlenecks

What could be done to remove the obstacles encountered? To what extent would the injection of more funding help to ease these problems? Which obstacles were more responsive to increases in funding? These questions were put to interviewees, and their responses gave rise to the strategic options of removing bottlenecks presented in this section.

Because the bottlenecks identified arose precisely in a context of substantial financing increases, further funding would only be able to eliminate these bottlenecks if such funding was targeted towards removing the existing obstacles. Injecting more funding in general might help to some extent but on its own it might not overcome the existing obstacles. Other policies or measures were needed. For example, improving financial incentives for medical personnel in the public sector in order to reduce the public-private financial divide may help in dealing with the human resources bottleneck. However, it probably would not stop personnel migrating unless staff satisfaction, morale and the working environment are also improved. For other institutional bottlenecks such as inadequate national leadership, increasing funding was unlikely to make a difference, as they depended on changes within the organisation, not on funding.

In designing policies for removing existing bottlenecks, the classification of obstacles by their severity as in Table 9.1 serves as a useful guide. Firstly, the priority is the group of obstacles holding back the spending of ART expenditure, as these represent the major hindrance. Critical interventions must address this group first, if they are to have an impact on the necessary processes. However, given the interlinkages between the obstacles highlighted, they need to be tackled hand in hand with the other impediments identified, that is, those belonging to the second group. Thus, responses to the problems identified need to be comprehensive. The emphasis in one or another aspect would vary for each particular context.

In view of the above complexities, the following sections discuss key strategic approaches to unblock the identified bottlenecks and to enhance absorptive capacity of ART funding in the South African public health sector. These approaches emerge from the fieldwork findings, and they are complemented by some related theories. The objective of this is to illustrate where existing evidence on this area overlaps with or contradicts the study findings.

A Integration of ART services within the overall health system

The provision of ART in South Africa was a mix of vertical and horizontal approaches. The government policy sought to deliver ART through the existing service platform. However, rolling out ART based on services provided exclusively by accredited sites and on an exclusive funding extreme (the conditional grant) created a vertical structure in the program. This helped to ensure quick implementation and high standards of adherence. However, it also created numerous complications, such as duplicating management structures and personnel, which is particularly problematic in the context of a severe shortage of human resources in the public health sector.

Participants emphasised the imperative of further integrating the delivery and management of ART within the existing structures. The provision of HIV/AIDS treatment and care needed to be further integrated within the overall health service platform, for several reasons: to avoid fragmentation and duplication of human resources; to enhance support to the program among all health professionals; to allow the influx of monetary and non-monetary resources invested in ART to benefit the whole system; and to make the program accessible to all South Africans in need. These reasons resemble those highlighted in the literature of horizontal vs. vertical approaches (Oliviera-Cruz et al. 2003).

Ideally, a person walking into a health facility should not need to go to one place for ART care and to another place for any other treatment. All these services should be provided to the patient at a single venue. This functional integration requires all health personnel to be knowledgeable about ART, rather than only an exclusive trained group. This would be the ideal functional integration. However, this ideal is

too far removed from current capacities, and thus too much to seek for in the short or even middle term. Before reaching that stage, several smaller steps need to be taken. A more realistic strategy would, for instance, focus on reducing the vertical structures at different points of the ART process, whether diagnosis, initiation of treatment, follow ups, drug dispensation, etc. In the particular case under study, being more flexible on the requirements for accreditation of ART delivery sites emerged as an instrumental consideration for opening the door to smaller PHC facilities to integrate ART services.

The functional integration at the clinic level was perceived as the driver for promoting financial and managerial integration at higher levels, which are more complex. Personnel at the clinics have a more pressing need and motivation to integrate, whereas this is less relevant at the higher levels. Moreover, the impetus to move towards higher levels of integration might lie within the line functions, such as training, as opposed to programs. Respondents argued that systematic and proactive action towards integration was needed in the country. The current divide between ART and non-ART resources, together with the obstacles impeding the implementation of the rollout, are preventing integration from happening on its own at the necessary speed.

Although respondents were very enthusiastic of the need to move towards integration, literature suggests that moving away from a vertical approach to delivering integrated services also has its drawbacks (Simms et al. 2001), and even more so for a lifelong and complex intervention such as ART (Schneider et al. 2004). For example, Simms et al. (2001) note that the financial cost of integration is very high, and often underestimated. In this particular research, it was noted that some areas such as M&E, which are deficient even in the more tightly monitored ART system, are likely to be further affected when integrated into the general system. At the same time, technological developments may facilitate the clinical treatment of the disease, such as with simpler regimes facilitating treatment adherence, which would ease the integration process. Moreover, the possibility of moving from client-initiated VCT towards routinely offered VCT, a highly debated shift in the country, might open windows of opportunity for normalising ART within the normal provision of health services.

B Decentralisation of health services towards PHC

Another key strategy, and closely linked to the integration of ART services, is the decentralisation of the provision of ART towards the PHC level. It involves spreading ART services geographically, including towards rural and disadvantaged areas. Respondents felt strongly that this expansion is crucial to boost access to the program, to promote equity and sustainability, and to support the current processes of strengthening the DHS system in the country. Moreover, decentralisation could also expand to other crucial aspects of the program beyond service provision, such as funding and decision-making responsibilities. Decentralising control of the HIV/AIDS conditional grant and business plans from the NDoH to the PDoH and district levels may enhance financial skills and ownership at lower levels.

In order to see a significant impact with regard to this expansion, a systematic approach or deliberate policy to roll down ART to PHC centres is needed. Lessons could be learnt however from the provinces studied and from the larger literature on decentralisation in relation to other health interventions (Hall and Roberts 2006). The Western Cape envisaged that the ART program would fit into their provincial strategic plan for restructuring their health system by decentralising services to cover distant areas. In the Free State, the moving of ART towards the clinics was promoted by combining assessment and treatment sites. More specifically, the Free State decision to allow assessment sites to do CD4 testing was a step forward in decentralising ART towards PHC structures. Thus, a systematic decentralisation process would involve the identification of treatment and care functions to be scaled down towards lower levels of care.

In relation to existing literature, previous studies tend to converge on the importance of the particular context in successful decentralisation (Bankauskaite and Saltman 2007). The decentralisation approach relies strongly on local structures and managerial capacity, which could be better supported by innovative structures such as flexible learning networks (Bailey 2003). In addition, a previous study of decentralisation in South Africa concluded that the political commitment and support

of the community could be even more important in implementing decentralisation than the health service delivery capacity (Hall and Roberts 2006).

However, previous experiences in decentralising health services suggest that decentralisation is a major challenge in terms of public health policy (Hall and Roberts 2006). Literature warns that, although decentralisation attempts to enhance equity and access, it can have the opposite effect, in addition to having other negative effects such as decreasing quality and increasing costs (Bankauskaite and Saltman 2007; Lush 2002; Simms et al. 2001; WHO 2000c). In fact, the decentralisation towards the DHS in South Africa in itself is not free of challenges (Hall and Roberts 2006), and it would become even more complicated when a complex intervention such as ART is to be incorporated further into the PHC structures (Blaauw et al. 2004).

The decentralisation process required strengthening lower level facilities, which were unequally capacitated. Given the serious deficiencies across the PHC structure, especially in the most rural areas, the decentralisation of the ART program towards lower levels of care could be regarded as a medium-term objective. Furthermore, as the literature shows, problems in decentralisation often arise because training needs to be adapted to the local needs; this is difficult, given the personnel shortages in local areas, and the need for strong supervision, which is also difficult for the same reason (Bankauskaite and Saltman 2007).

C Changing the mode of ART delivery

Another emerging strategy was the need to reconsider the tasks that different levels of workers were doing in order to make the best use of trained personnel. This required nurses to take on some of the doctors' responsibilities, and for data capturers to take on some of the nurses' responsibilities. The goal would be to have each specialist to do his/her own job, and no less than that. The current mode of ART delivery was believed to under-utilise personnel's skills, which, given the shortage of personnel, was a major factor holding back the program.

In particular, whilst the Comprehensive Plan is a 'doctor-based' model of ART delivery, respondents agreed strongly on the imperative need for a 'nurse-led' approach, which was implemented in the Western Cape and the Free State. In a nurse-driven program, the nurse would be able to initiate and follow up on most patients on ART, and even to deal with drug dispensation. Only patients with severe complications, as established by certain parameters, would be seen by doctors. Nurses could take on some of the doctors' responsibilities because (a) they were capable of doing so and maintaining the program results, as shown in the Western Cape and Free State experiences; (b) it would optimise the use of available skills; and (c) given the shortage of doctors, a nurse-driven model was a precondition to scaling up the program and to decentralising it towards rural areas.

The reassignment of staff roles was also proposed for other professions, not only nurses. The imperative of having dieticians, social workers and counsellors in every ART clinic could be reconsidered; a more flexible performance of these support tasks according to the human resources available at the health facility may be possible without significant losses in quality of treatment.

The intensification of the nurses' workload, nonetheless, would place greater stress on them; nurses were already scarce, and it would also require economic compensation to match greater responsibilities. Thus, shifting responsibilities between professions would raise questions about scope of practice and necessary compensation for doing more advanced work. In addition, it would be necessary to safeguard the quality of services offered to patients.

It is important to note that shifting responsibilities between professions would not solve all human resource constraints and that it would not by itself address staff needs to scale up ART. Shifting tasks should thus be considered as one of several measures to address to increase, retain and sustain personnel. Other interventions proposed, as explained in Chapter 7, include: promoting middle-level professionals, lay counsellors, and community health workers; improving staff support and introducing incentives to enhance staff satisfaction and retain personnel; and engaging with the private sector on several fronts such as clinic practice.

The same emphasis on task shifting for ART scale-up is echoed internationally. A growing literature is focusing on the delegation of tasks, in particular in relation to doctor vs. nurse driven approaches to ART (Philips et al. 2008; WHO 2008). WHO (2008) specifies a list of HIV clinical tasks, and assigns them to health cadres to guide on the potential scope of practice for each cadre. Specifically in relation to ART, WHO (2008) notes that non-clinician physicians and nurses can actually perform a wider range of tasks, especially in relation to first line regimes, including establishing eligibility, initiating, and prescribing first-line ART (with some exceptions).

However, it is also argued that task shifting for ART is "not a panacea" for Sub-Saharan Africa, and that "it must be part of an overall strategy that includes measures to increase, retain, and sustain health staff" (Philips et al. 2008). The delegation of tasks can actually lead to burnout, as it imposes new responsibilities (Philips et al. 2008). In addition, it is argued that lay and community workers should be paid sufficiently, and that they should focus on clearly specified tasks to ensure quality (Philips et al. 2008).

D Balancing the conditional grant and the equitable share mechanisms

Which financial mechanism is more appropriate to enhance absorptive capacity: equitable shares or conditional grants? On the one hand, the availability of a dedicated budget for HIV/AIDS served to prioritise and facilitate the provincial funding of HIV/AIDS treatment and care. On the other hand, ring-fenced funding brought about underspending and management problems due to the restrictions attached to the grant. Moreover, the equitable share mechanism supported the overall health system beyond the particular HIV/AIDS interventions, which the conditional grant could not do. In summary, both mechanisms have their advantages and disadvantages.

The choice between the two financial instruments needs to balance several criteria, of which spending is only one. Other considerations include accountability, the broader fiscal framework, and intra-governmental relationships. For example, the spending difficulties of conditional grants were linked to the high reporting

requirements attached to the grants. At the same time, it was precisely these reporting requirements, which enhanced the transparency and accountability of public expenditure. In fact, the HIV/AIDS conditional grant was a powerful political instrument, as it allowed government to show clearly their commitment to fighting the disease. Thus, there is a trade-off between accountability, as given by detailed reporting, and spending flexibility, as favoured by the relaxation of the requirements. Another example is provided by the lack of accountability of the targeted increases on equitable shares, as there was no legal mechanism to make provinces accountable for following the spending indications of treasury. In fact, the research revealed concerns that the targeted increments intended for HIV/AIDS did not trickle down completely to HIV/AIDS programs, or at least it did not do so in all the provinces.

In terms of the broader national fiscal framework, equitable shares were perceived to be more supportive than conditional grants of the current fiscal framework of decentralisation of fiscal responsibilities from national to provincial spheres of government, because this mechanism is more conducive towards provincial spending autonomy. In fact, some provincial managers saw conditional grants as interfering with their financial planning. Were the national political and fiscal frameworks to change, it would have an impact on the desired mechanism. Such change may not be a distant prospect given the currently debated proposals to amalgamate provincial governments, as raised by some participants and reflected in the literature (Ajam and Aron 2007). However, the evidence from this research does not suffice to judge whether a fiscal federal structure as South Africa would increase or lessen problems with absorptive capacity. The lesson is to combine the existing mechanisms in a way that balances the identified pros and cons.

With respect to the intra-governmental relationships, conditional grants strengthened the decision-making power of the NDoH, which dictates the provincial distribution of the grant, and approves provinces' business plans. This was not the case with equitable shares, for which the ultimate control remains within National Treasury, which allocates the equitable share pool across the nine provinces, and with the provincial government, which allocates their share across provincial departments. Consequently, the ultimate choice between the two mechanisms is also a decision of balancing power between National Treasury, NDoH, and provinces. Therefore,

shifting the balance between the two funding mechanisms shifts the balance of power: in other words, more reliance on the conditional grant mechanism will shift the balance towards the NDoH.

Looking ahead, the question to be asked is if or when the HIV/AIDS conditional grant to PDoHs would or should eventually be replaced with equitable share funding. Such shift is central to integrating HIV/AIDS treatment and care financially into the larger health system. To assess the provincial readiness or willingness to sustain HIV/AIDS expenditure when funding is not conditional, an important indicator would be the sustained increases in discretionary funding made from PDoHs towards HIV/AIDS interventions (Hickey and Ndlovu 2004). For instance, the high discretionary allocations made by KwaZulu-Natal and the Western Cape suggest that ring-fencing may not be required to ensure spending on the Comprehensive Plan in these provinces (Hickey and Ndlovu 2004). However, the difficulty of making the right choice remains, given the diverse situation of provinces in terms of their spending priorities, which are also dependent on the balance of political power in individual provinces. Overall, participants perceived that the country as a whole was not yet ready to shift from conditional to non-conditional funding.

Some respondents pointed out that the time to shift from the HIV/AIDS conditional grant to equitable share would come only when provinces have run HIV/AIDS treatment and care programs for some time. The assumption would be that, once they have ongoing ART programs, they could not stop expenditure on this program, especially because ART is a life-long treatment, which cannot be interrupted. Nevertheless, this argument may not be sufficient to ensure future spending on HIV/AIDS, given the numerous other health and social needs in the country. It was also argued that shifting from conditional to non-conditional funding could come first for wide-reaching interventions, such as PMTCT and maybe even VCT, but that it would take longer for the more recent ART program. Thus, it might be possible to consider a gradual shift along particular HIV/AIDS interventions currently covered by the conditional grant.

Overall, findings point towards maintaining the HIV/AIDS conditional grant for some more years in order to ensure spending in this priority area. Despite the awareness of the need for ART, there was a great concern that without the conditional grant, money would be deviated to other competing priorities. In the meantime, the conditional grant could be reshaped to tackle the obstacles encountered, such as covering more services, in particular related to building up capacity, relaxing the detailed reporting conditions, and permitting provinces to adjust funding within the approved budget as the need arose.

E Enhancing coordination between DoH spheres and clusters and with Treasury

The research showed that significant improvements in several aspects of expenditure management and implementation of the ART program could be achieved by enhancing the communication and collaboration of the various government departments and spheres involved.

Firstly, enhancing closer communication and understanding between NDoH and PDoHs was central to ensuring the proper functioning of the whole process of financing and implementation of the ART program. Although implementation responsibilities lay with the provincial level, some critical decisions were taken at the national level. Tensions emerged though, as communication was often perceived as top-down, coming from the NDoH, or because information exchanges took a long time or did not always take place. Consequently, it is important to improve the channels of communication between the NDoH and the PDoHs in order to favour more open sharing and interaction.

Secondly, significant advantages could also be gained from promoting further engagement and joint collaboration between DoH and Treasury, especially at national level. The budget process could benefit from intensifying the meetings and joint work between both departments, in particular in the preparation of budget bids. Closer collaboration could help the Health Department to make stronger proposals, substantiating its budget bids to meet the information required by Treasury in order to qualify for the requested funding. A problem was that DoH was sometimes

perceived as being undermined by Treasury's financial authority over HIV/AIDS funding. To maintain a strong position, DoH needed to show they were in control of the program, showing progress and results against expenditure. In addition, National Treasury should also be accountable for the targeted increases on equitable shares for HIV/AIDS, providing information on the use of such funding.

Thirdly, better understanding and further cooperation between the DoH clusters involved in the ART program could also benefit its progress, both at national and provincial levels. Closer collaboration between DoH clusters was needed in order to bring together the expertise and inputs of several areas related to ART implementation. For example, although the HIV/AIDS and human resources departments needed to work together to manage personnel needs, their cooperation was considered deficient by study participants. As part of the problem was the perception that the HIV/AIDS department was privileged within the health service, the progressive integration of HIV/AIDS within existing structures was expected to enhance collaboration within the DoHs.

9.5 Policy recommendations

The study proposes a number of approaches for dealing with each bottleneck and related obstacles as identified in the study. They are summarised below:

Financial bottlenecks

- National Treasury together with NDoH should redefine the conditional grant in order to relax its requirements in terms of the detailed reporting, and to expand the interventions covered by the grant;
- NDoH and PDoHs, with support from their Treasury counterparts, should enhance the DoH's planning capacity by documenting budgets proposals with the relevant information to justify demands for more funding;
- NDoH and PDoHs should work towards improving communication and coordination along the vertical lines of the DoH to ease the flow of financial transfers;

- PDoHs, in collaboration with NDoH, should promote the constructive use of business plans for good planning, rather than as a mean to receive funding;
- PDoHs should ensure that that each province has appointed financial officers to deal specifically with the HIV/AIDS expenditure at PDoHs, including the conditional grant;
- PDoHs should support financial management capacity at the district level, prepare for the transfer of financial responsibilities, and enhance their participation in the business plans;
- Donor partners should inform NDoH of international funding given to the country in order to enhance accountability and improve coordination of donor resources.

Human resources bottlenecks

- NDoH should promote policies to address the public-private mismatch of resources, in particular by working on retaining personnel in the public health sector and utilising the private sector's capacity;
- NDoH and PDoHs should enhance personnel management, paying more attention to the motivation and morale of staff;
- NDoH and PDoHs should support program managers in particular, by encouraging proactive management and innovative solutions, and providing them with the necessary training and support;
- NDoH and PDoHs should reduce the number of acting positions and procure stable postings, in particular among managers;
- NDoH and PDoHs should rationalise the time and procedures required for recruiting personnel, allowing for example group advertisement or headhunting when necessary;
- NDoH and PDoHs should target the shortage of human resources, most especially in the rural areas;
- NDoH and PDoHs should train nurses to take on some of doctors' responsibilities in ART delivery and create incentives for task shifting;
- NDoH and PDoHs should enhance the work of lay counsellors and home-based carers by providing better incentives, training, and supervision;

- NDoH should increase the number of health professionals, and train all new students on ART;
- NDoH should continue with the promotion of middle-level professionals for doctors and pharmacists.

Infrastructural bottlenecks

- NDoH should reconsider the infrastructure standards set in the Comprehensive Plan, and consider the possibility of turning some of the compulsory requirements into optional ones;
- NDoH should ensure that NHLS boosts laboratory infrastructure in rural areas;
- NDoH and PDoHs should allow for temporary infrastructure to deal with immediate needs while infrastructure projects are being developed, such as use of prefabs or containers, or renting facilities;
- PDoHs should have a provincial central depot with a very quick response rate to allow sites to decrease their ARV stocks.

Institutional bottlenecks

In the area of M&E:

- NDoH should enhance the coordination of M&E systems employed across provinces, and rationalise the indicators to be reported from provincial to NDoH;
- NDoH should further clarify ART indicators used to avoid different interpretations;
- NDoH should intensify the use of information provided by provinces to show progress achieved and support decision-making by program managers;
- NDoH should make special efforts to collect and provide information on the number of people currently on treatment, clarifying the number of patients lost to follow-up;
- NDoH should promote overseeing the impact of the ART program on the overall health system;

- PDoHs could employ paper-base registers for M&E as they have proved to be sufficient, but could employ electronic systems if sufficient capacity to enter and analyse data is available.

In the area of national political leadership:

- High political leaders, such as the President of the Nation and the Minister of Health, should send clear and unambiguous messages acknowledging the advancements of HIV/AIDS treatments and promoting the uptake of ART for individuals in need in order to overcome previous ambivalence around the stance of the government in relation to HIV/AIDS and ART;
- NDoH should provide further leadership by closely watching over the implementation and uptake of the program and by giving strategic guidance in order to overcome existing obstacles and plan for future challenges;
- NDoH should make use of examples of good leadership in combating the epidemic in order to encourage others by focusing on the positive experiences.

In the area of drug and medical equipment procurement systems:

- NDoH should reduce the management regulations pertaining to ARVs according to their legal status as schedule 4 medication;
- NDoH should seek more flexible tenders to adapt to the new drugs and formulations available in the market at good prices;
- NDoH and PDoHs should promote more flexible general procurement processes to allow quicker procurement of goods without compromising accountability standards.

In the area of integration of HIV and tuberculosis services:

- NDoH should promote research to clarify the appropriate entry points for integrating HIV/AIDS and tuberculosis services;
- NDoH should take stock of current research projects and disseminate results;

- NDoH should procure the integration of HIV/AIDS not only with tuberculosis but within the health system as a whole.

In the area of pilot studies:

- NDoH should promote further dissemination and discussion of existing evidence on ART delivery experiences;
- NDoH should decide on the use or not of funding offered by donors for research in areas related to ART.

Structural bottlenecks

In the area of government bureaucratic system:

- NDoH and PDoHs should promote innovative problem-solving attitudes, allowing the application of local solutions, and promoting flexible decision-making;
- NDoH should relax the administrative procedures linked to the accreditation of ART sites, procurement of drugs and equipment, and recruitment of personnel.

In the area of access issues:

- NDoH together with PDoHs should work together to provide a framework for gradually decentralising ART provision towards PHC clinics;
- PDoHs should work together with traditional healers to promote demand for ART services, especially in the most rural areas;
- PDoHs should promote mobile units in the remote areas where transport is lacking.

In the area of PPP:

- NDoH and PDoHs should take stock of provincial examples of good public-private collaborations, such as in the Western Cape and in the Free State;

- NDoH should make more use of existing capacities outside the public health sector, in particular in relation to human resources in terms of clinical service delivery and financial management;
- NDoH should revitalise SANAC to promote the space for interaction and cooperation of stakeholders around ART within and outside the DoH.

In the area of ownership of decision-making:

- NDoH should respect and encourage the discretion of provinces with regard to the delivery of health services, including expenditure management. When approvals are required from the NDoH, this should be given quickly so as not to delay processes.
- PDoHs should enhance the gradual decentralisation of implementation responsibilities to districts, in particular around financial management.

In the area of community outreach and participation:

- PDoHs should support grassroots in accessing and managing large funds used for implementing the Comprehensive Plan;
- NDoH should strengthen mass media campaigns in order to support the work of communities which are promoting access and adherence to treatment.

9.6 Conclusion

This chapter presented a tool for assessing the absorptive capacity of other public health programs funding. This tool consists of a series of questions to be examined in three phases in relation to inputs, processes and outputs. This chapter furthermore discussed the study findings presented in Chapters 6-8, classifying the obstacles encountered into three types according to their severity. The most serious bottlenecks holding back the implementation of the program are human and financial. Furthermore, only one structural obstacle was identified as impeding the spending of funding and the implementation of ART, namely the slow, bureaucratic nature of government systems. This suggests that most of the obstacles holding back

the ART program are within the domain of the NDoH and PDoHs, thus indicating that the DoHs have the capacity, as well as the responsibility, to take appropriate actions to unblock the bottlenecks encountered.

This chapter also proposed a number of ways to unblock these bottlenecks. The following key strategic policies are suggested: integration of ART services within the public health service platform; decentralising ART towards PHC; changing the delivery mode of ART; balancing the two financial mechanisms of conditional grants and equitable shares; and enhancing coordination along and within the DoH spheres and clusters. These solutions do not depend on the injection of funds but rather on modifications or reforms within the public health system. Lastly, for each bottleneck that was identified in the study, a set of specific policy recommendations was given.

CHAPTER 10 CONCLUSIONS

10.1 Introduction

Currently, South Africa is the country with the largest population being treated with ARVs in the world. This achievement has been made possible thanks to substantial increases in HIV/AIDS public expenditure. This thesis has reviewed the implications that the rapid scale-up of funding for the Comprehensive Plan, in combination with the presence of obstacles to absorb such funding, has had in strengthening the health system and its efficiency, equity and sustainability.

This thesis provides a comprehensive definition of absorptive capacity in the context of HIV/AIDS funding in South Africa's public health sector. In addition, the study constructed a framework for identifying the bottlenecks to spending and obstacles encountered. In terms of the methods employed, the qualitative face-to-face interviews are the main pillar of the research, supported by a quantitative budget analysis. The study focuses on South Africa and, in particular, the provinces of the Western Cape and the Free State.

This chapter provides, firstly, an update on the research findings in Section 10.2. Section 10.3 reviews the study contributions and limitations. Section 10.4 reflects on the generalisability of the findings. Section 10.5 presents areas for further research, and Section 10.6 concludes.

10.2 Impact of recent events

Since the completion of data collection for this thesis, several important events had taken place which have relevance for the study findings. Firstly, the new *HIV & AIDS and STI Strategic Plan for South Africa 2007-2011* (NSP) was endorsed (DoH 2007a,b). The treatment objective of the new NSP is more moderate than the objective of the Comprehensive Plan, which supports the argument that the targets of the Comprehensive Plan were too ambitious. In addition, several of the objectives of the NSP are in line with and corroborate the recommendations identified in Chapter

9 (see Appendix 24). In terms of cost implications, the NSP also recognises that ART is by far the major cost-driver in the plan (DoH 2007a), supporting the importance of focusing specifically on the ART program.

The impetus given by the NSP is accompanied by other changes, which may further strengthen its thrust. SANAC has been re-structured in order to make it a stronger platform for interaction among stakeholders. In addition, both the Minister of Health and the President, criticised for their controversial messages around HIV/AIDS and ART, were replaced in 2008. The new Minister of Health, in particular, has been clear in encouraging the fight against the epidemic and supporting the ART program (News24 2008a,b,c).

Secondly, the ART program has expanded substantially, signalling that the Comprehensive Plan is in fact bearing fruit in expanding ART across the country. It is estimated that around 458,951 people were receiving ART at the end of 2007, including public and private patients (UNAIDS 2008), which is a 41% increase from 2006. However, it also implies that by December 2007, only about 28% of the people in need of ART were receiving it. Thus, progress is still very far from reaching the objectives of the Comprehensive Plan, and even of the NSP.

Thirdly, public HIV/AIDS funding has continued to grow substantially up to 2008. Appendix 25 compares the financial trends pictured in Chapter 5 (containing data available up to May 2006) with trends based on budget figures updated in January 2009. The updated financial budgets show that major increases in funding were recorded in 2007/08-2008/09, confirming the interpretations in Chapter 5 that MTEF projections of HIV/AIDS funding have been revised upwards. The same is true for the two provinces studied. This suggests that the commitment to financing the scale-up of HIV/AIDS policies has been sustained over this period. Conditional grant funding continues to be the preferred mechanism for financing HIV/AIDS policies, amounting to around double the recorded contribution of HIV/AIDS discretionary funding in provincial budgets. In the Free State, however, HIV/AIDS funding continues to be made up almost entirely of conditional grants.

Fourthly, in 2008, financial markets collapsed internationally, driving global economies into recession (The Economist 2008a,b,c and 2009). Economic growth internationally was likely to fall from over 5% in 2007 to 3.9% in 2008, and perhaps to less than 3% in 2009 (Minister of Finance 2008). Growth forecasts for South Africa have also been revised downwards, with GDP growth declining from around 5% per year up to 2008 to 3% in 2009 (Minister of Finance 2008). This economic crisis is likely to compromise the growth of HIV/AIDS funding. In addition, international sources of funding are also likely to be affected by the economic downturn, and aid agencies have already signalled that foreign assistance will be reduced (News24 2008d,e). As a result, the global financial crisis is creating a new scenario where it will be very difficult, even unlikely, to sustain the large historical increments in HIV/AIDS funding. Given this reduction in financial resources, the problem of absorptive capacity as studied in this thesis, i.e. in a context of high and sustained funding increases, becomes irrelevant, as such increases are unlikely to occur in the imminent future. Nonetheless, what becomes more urgent is the need to make better use of available resources. To do so, it is critical to overcome the identified obstacles to the absorption of funding. Therefore, the findings of this research do remain relevant, if not even more important, given the envisaged period of economic recession ahead.

Finally, an interesting development in the financing of the FSDoH merits special attention. The FSDoH has moved from underspending to running out of funding, not only for ART, but for the entire FSDoH. In October and November 2008, the FSDoH issued cost-containment measures "to avoid cash-flow problems" given the "critical financial situation of the Free State Province" (FSDoH 2008a, p.1; FSDoH 2008b; FSDoH 2008c). Moreover, in mid-November 2008, the FSDoH mandated ART facilities to stop immediately putting new people on to ART due to budget constraints (FSDoH 2008d; News24 2008f; Thom 2008a; Beresford and David 2008; Flanagan 2008a). Furthermore, on the 25th of November 2008, the FSDoH announced cost containment measures for 31 hospitals, including postponing all non-emergency surgery and stopping all non-critical staff appointments until the end of January 2009 (Thom 2008b; Flanagan 2008; The Citizen 2008). Whereas the FSDoH claims they were under-funded, the Provincial and National Treasury point at poor financial management within the FSDoH (FSDoH 2008d; Thom 2008b;

Flanagan 2008b). In response, the NDoH injected R9.5 million into the FSDoH to enable it to buy ARVs and the Minister of Health announced the establishment of a team, an "in-house treasury" at NDoH, to monitor spending in PDoHs (News24 2008f,g). These events reinforce the reported need to strengthen provincial financial management in order to monitor the *quality* of spending and not only the *level* of spending. It also confirms the concerns about the usefulness of the business plan in planning and budgeting. In addition, the fact that the FSDoH took such drastic measures suggests that communication and collaboration between the FSDoH and the NDoH and provincial Treasury remain insufficient and even a hindrance to dealing with problems encountered. All these implications underline the importance of dealing with the identified obstacles to absorptive capacity in order to optimise funding for HIV/AIDS.

10.3 Thesis contributions and limitations

This section outlines the contributions and limitations of the study.

Thesis contributions

The main contributions of this thesis are two-fold, viz. conceptual and operational.

On the conceptual analysis of absorptive capacity:

- The study reviews the literature on absorptive capacity from several disciplines; it shows the absence of a common understanding of the term and indicators to measure it; the closest group of theories relate to absorptive capacity in respect of international aid;
- The thesis demonstrates that it is relevant to study absorptive capacity for HIV/AIDS funding in relation to public expenditure, and not only in relation to international aid;
- The study provides and tests a comprehensive definition of absorptive capacity of public HIV/AIDS funding in South Africa. This definition was positively supported by research participants and proved relevant in the study context;

- The study creates and tests a framework for identifying and disentangling the nature and severity of the major barriers hampering the utilisation of ART funding in the public health sector. This framework proved useful for systematically collecting participants' assessments of the bottlenecks and obstacles encountered, and consequently suggesting policy recommendations.
- The study provides a tool to assess absorptive capacity for financing public health interventions. This tool consists of a series of questions to be examined in three phases, which relate to inputs, processes and outputs.

On the operational study of the South African case:

- The thesis provides a budget analysis of HIV/AIDS funding and spending patterns in South Africa and, more specifically, in the Western Cape and the Free State provinces. The budget analysis also compared conditional and discretionary funding;
- The study assesses absorptive capacity in respect of public HIV/AIDS treatment expenditure in South Africa, as well as in the Western Cape and the Free State provinces;
- The research identifies, explores and categorises the major obstacles holding back the scale-up of ART funding and implementation; in so doing, it provides an assessment and understanding of the issues involved through a systematic study;
- The thesis suggests a set of overall strategic policy changes, and a set of specific policy recommendations to overcome the identified obstacles and to enable the utilisation of available funding in a system-supportive, effective, efficient and sustainable way;
- The study compares the provinces of the Western Cape and the Free State, and draws lessons from their differences and commonalities.

From the commencement of the Comprehensive Plan, several lessons can be learnt. This thesis aims to contribute to the South African ART program by systematically analysing the problems encountered and recommending policy options to make better use of available funding. In particular, this research hopes to aid the South

African National and Provincial DoHs to be better equipped to confront the challenges of scaling up ART. It is the investigator's hope that this research will support members of the DoHs in taking evidence-informed spending decisions, and in that way, facilitate sustained increases of HIV/AIDS funding from Treasury too.

The research has provided a space for stakeholders involved in ART financing and implementation, whether from inside or outside government, to voice their opinions on progress freely, and to suggest ways of improving the program. This neutral space is especially valuable given the noted controversies and fear of expressing opinions around HIV/AIDS and ART. The numerous quotations provided in Chapters 6-8 serve to illustrate respondents' opinions in their own words.

This research has also contributed to the understanding of the politics of HIV/AIDS financing policies, investigating the actors, financial instruments and processes involved in financing the implementation of the ART program.

In addition, as a critical input, the approach taken in this research has highlighted the side-effects of the ART rollout for the rest of the public health system, exploring related challenges and opportunities. The importance of promoting this understanding cannot be overemphasized.

Moreover, this thesis contributes to international efforts to track the results of the international funding mobilised for ART by drawing attention to the importance of considering specific national issues, which determine the utilisation of such funding.

Limitations of this study

A major limitation of this research is that it makes policy recommendations to enhance absorptive capacity in South Africa based on a qualitative study at the national level, and on a more in-depth study in only two provinces, out of the nine South African provinces. Clearly, it would have been beneficial to study the other provinces in more detail too, especially those facing the biggest challenges to absorbing funding and implementing the ART program. However, as explained in Chapter 2, the lack of information and the late start of the ART program in these

provinces hindered the viability of such study at the time. In addition, extending the study to other provinces would have been too time-consuming for the scope of this research. The appropriateness of selecting the Western Cape and the Free State as the two provinces to be studied was moreover corroborated by respondents in the interviews at the national level.

Qualitative research has its strengths and limitations. It has proved useful in exploring the understanding of the concept of absorptive capacity and its constitutive elements among a wide set of stakeholders. However, the qualitative method is more limited in assessing absorptive capacity and major bottlenecks, as it is dependent on the subjective opinion of respondents, as well as being dependent on the objectiveness of the researcher in analysing and reporting data. To create a more systematic method of enquiry, interviews were conducted based on interview guides, and the enquiry of major bottlenecks was based on a table shown to all interviewees. This was also a limitation of the study, as the table guided interviewees' responses, and hence it might have created a bias in the fieldwork. In addition, the researcher used qualitative software to analyse the data. Furthermore, only forty-two people were interviewed as part of the fieldwork. Extending this research to other related organisations or governmental departments would probably have enhanced the study findings, but the time costs of such exercise would have been very high, and it exceeded the limits of this research.

Another major limitation is that the budget analysis was done for overall HIV/AIDS budgets, even before the Comprehensive Plan had been launched, whilst the fieldwork focused more specifically on the ART component of that plan. Although ART is the highest cost driver of the Comprehensive Plan, and ART is delivered in conjunction with other care and support interventions, this study would have been more complete if it had also included a budget analysis of exclusively ART-related expenditure, such as, for example, the ART expenditure component of the HIV/AIDS conditional grant. However, such analysis was not possible due to data restrictions. In addition, data restrictions in relation to discretionary funding are another limitation to the quantitative analysis of Chapter 5.

10.4 Generalisability of the findings

The contributions of this thesis on the conceptual front are transferable to studies on absorptive capacity in other settings, whether in other countries or other interventions, as it provides an analytical framework for undertaking such research, which could be adapted to the particularities of each case. In particular, the tool to assess absorptive capacity provided in Chapter 9 is particularly relevant for public health interventions.

More specifically, the analysis of the Western Cape and the Free State is particularly relevant for other South African provinces. The Western Cape is better off than other provinces in terms of resources, ART progress, and their lower HIV prevalence. Yet, the lessons of this province are crucial for the other provinces too, because as the Western Cape's ART program has been running the longest, it provides lessons about obstacles that are likely to emerge in other provinces a few years hence. The Free State province closely approximates other provinces in terms of its resources and the status of the epidemic, and it would thus offer useful lessons for other provinces too.

This research also imparts insights that are relevant for other African and low- and middle-income countries affected by the HIV/AIDS epidemic, which are likely to face similar obstacles, such as a shortage of medical personnel or poor M&E systems. Depending on the angle taken, South Africa can be considered worse-off or better-off than other affected countries. On the one hand, South Africa faces the challenge of having the largest HIV-population in the world. On the other hand, South Africa is better resourced than other African countries affected by the epidemic; not only is it a middle-income country, but it has strong private for-profit and not-for-profit sectors. Because the study does not focus specifically on the most deprived South African provinces, the emerging results may be more relevant to other middle income countries such as Brazil, for example, rather than to other low income countries.

This research emphasizes that a long-term and holistic perspective is needed in scaling up ART, as otherwise the whole health system is put in danger. In addition, it indicates the importance of overcoming bureaucratic barriers in order to enhance absorptive capacity in the public sector. The results also emphasise that good leadership strongly influences the success of expanding any medical intervention

The greatest limitation to generalising the findings of this study to other low- and middle-income countries is posed by South Africa's uniqueness in funding the HIV/AIDS response mainly through domestic resources. In contrast, donor-driven provision of ART is most common in low- and middle-income countries. For these countries, obstacles arising from the donor-recipient relationship, as reviewed in Chapter 3, should also be taken into account. Yet, the need to consider the domestic obstacles to absorptive capacity described in this thesis remains valid; it is also a new contribution to existing literature. Furthermore, the research also revealed that donor funding was more important than initially thought.

Extrapolation of the results of this research to other HIV/AIDS areas, such as prevention interventions, would be difficult because prevention interventions are not specifically delivered through the health system; they require more diverse policies involving a wider group of agents, not only medical staff in health centres. Thus, issues are likely to differ significantly. However, some institutional and structural obstacles, such as inadequate national leadership and the slow bureaucratic system, are also likely to affect HIV/AIDS prevention interventions. For other HIV/AIDS interventions delivered through the health system, such as VCT or PMTCT, the method and results of this research are more relevant.

10.6 Agenda for further research

Several areas of this investigation should be researched further. Firstly, in relation to the policy recommendations outlined in Chapter 9, there is a need for further operational research to guide the processes of integration and decentralisation of ART delivery through the PHC structure, as well as to investigate the feasibility and challenges of nurses taking up more of doctor's responsibilities in ART delivery.

Given the bottlenecks identified in this research, clarifying the steps that are required to implement these changes gradually is crucial for scaling up ART in South Africa. Moreover, following up through appropriately focused research on each of the specific recommendations to unblock the major bottlenecks holding back the ART program would directly benefit the optimisation of resources.

In addition, further work should seek to track HIV/AIDS expenditure, both conditional and non-conditional. There is a need to monitor the resources invested to enhance accountability and to ensure that funding is being utilised optimally. Future HIV/AIDS increases should be closely tracked to ensure that funding is sufficient, not only to sustain current programs, but also to meet the growing need for treatment. It is also necessary to track underspending of allocations as an indicator of potential inability to absorb funding. Furthermore, special efforts should be devoted to tracking HIV/AIDS allocations made from discretionary funding, and in particular the targeted increases for HIV/AIDS made to the equitable share by National Treasury.

While working towards the scaling-up of ART, it is also important to harness research to monitor the broader implications of the program in terms of efficiency, equity and sustainability, and the impact on the overall health system. The analysis of these system-wide implications should constitute a core feature of the HIV/AIDS response. In particular, the understanding of health system strengthening as a matter of keeping the right balance among the components of the program, as explained in Chapter 8, opens an innovative avenue for research in this field.

A contested area of debate throughout this thesis was whether the requirements for the accreditation of ART sites could or should be relaxed without comprising service quality. The idea is not to reduce the standards but to explore alternative, innovative ways of delivering treatment. Thus, further research devoted to investigating alternative ways of ART delivery, in particular given the restrictions pointed out in this research, would be useful to facilitate the expansion of the ART program.

A particular area of further research lies within human resources. The research highlighted the differences between the number of personnel working for or related

to ART in the WCDoH and those working in the FSDoH, particularly in relation to financial officers. These differences related directly to the different performance of both DoHs in those areas. Therefore, it would be interesting to investigate further the personnel infrastructure in both DoHs, their number, positions and skills, and their relationship with the absorptive capacity of each province.

Finally, the research in the Free State pointed out the need to follow up on those individuals who tested HIV-positive, but who do not yet qualify for ART, whether because of their clinical status or because they are waiting to start ART. Although the Comprehensive Plan stipulates that they should be provided with comprehensive care, the research has ascertained that this is not normally the case, and in fact many of these individuals died before ever accessing ARV treatment. Thus, further efforts should be devoted to understanding this loophole in the health service delivery, and to identifying the necessary steps to tackle this problem.

10.7 Conclusion

The study investigates whether insufficient absorptive capacity prevented the utilisation of funding and the expansion of the HIV/AIDS treatment program in South Africa. The research centres on the issue of absorptive capacity, not merely in relation to how much could be spent, but even more importantly on whether South Africa can afford to roll out the Comprehensive Plan in an equitable, efficient and sustainable manner at the same time as strengthening the overall health system.

The research shows that a number of obstacles are blocking the optimal utilisation of increasing ART funding. The major constraints relate to the shortage and poor management of human resources, in particular of program managers and pharmacists, and to the restrictions related to conditional grant funding and related financial processes. In addition, other key impediments holding back the program are: insufficient M&E information systems; inadequate political leadership; the slow bureaucratic nature of the government; and insufficient space in health facilities. The study makes specific recommendations to deal with each obstacle identified, while also making strategic policy recommendations, in particular: integrating ART

services within the public health service platform; decentralising ART towards PHC; changing the delivery mode of ART; balancing the conditional grant and the equitable share mechanisms; and enhancing coordination along and within the DoH spheres and clusters. These measures are crucial to unleashing the capacities that will enable the scale-up of HIV/AIDS treatment in the country through ARVs. This research expects to contribute to the better utilisation of existing resources for the ART program in a manner that strengthens the overall South African public health system. In addition, the contribution is also conceptual because it deepens our understanding of absorptive capacity and because it provides a tool to assess this concept in the context of public health policies.

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APPENDIX 1 List of interviewees

INTERVIEWEE POSITION	DATE
National Department of Health, Pretoria	
Comprehensive Plan, HIV and AIDS, TB and STI cluster	09.05.2006
Health Economics and Finance Unit	14.06.2006
STI and AIDS Prevention Unit	14.07.2006
HIV and AIDS, TB and STI cluster	01.09.2006
Strategic Planning Cluster	07.09.2006
South African National AIDS Council	11.12.2006
National Treasury	
Social Services	10.08.2006 & 27.03.2007
Outside government, national level	
AIDS Budget Unit, Institute for Democracy in South Africa, Cape Town	30.03.2006
AIDS Budget Unit, Institute for Democracy in South Africa, Cape Town	30.03.2006
Monitoring and Evaluation, Global Fund for fighting AIDS, Tuberculosis and Malaria, Geneva	05.07.2006
Health Systems Trust, Durban	07.07.2006
Social Aspects of HIV/AIDS and Health, Human Science Research Council, Pretoria	10.07.2006
Regional Support Team for East and Southern Africa, UNAIDS, Johannesburg	12.07.2006
Medical Research Council, Cape Town	13.07.2006
Health Policy Unit, University of Witwatersrand, Johannesburg	19.07.2006
Medical Research Council, Cape Town	31.07.2006 & 04.08.2006
Western Cape province, inside and outside government	
Budget Office in the Provincial Treasury	04.10.2006
School of Public Health and Faculty Medicine, University of	06.10.2006

Cape Town	
Strategic Programs, PDoH	18.10.2006
Global Fund Program, PDoH	20.10.2006
ARV program, PDoH	27.10.2006
HIV/AIDS, STI and Tuberculosis, PDoH	31.10.2006
Provincial Treasury	17.11.2006
Monitoring and Evaluation, ARV program, PDoH	14.12.2006
Health Economics Unit, University of Cape Town	01.03.2007
District Health Services and Programs, PDoH	12.03.2007
Free State province, inside and outside government	
ARV Program, PDoH	30.11.2006
Human Resources department, PDoH	30.11.2006
Financial department, PDoH	30.11.2006 & 06.12.2006
ARV Program, PDoH	30.11.2006
Centre for Health Systems Research and Development, University of the Free State, Bloemfontein	04.12.2006
ART Centre for Excellence, Medical Faculty, University of the Free State, Bloemfontein, and ART Task Team Member, PDoH	11.12.2006
Centre for Health Systems Research and Development, University of the Free State, Bloemfontein	11.12.2006
Consultant for the ART Program, PDoH	11.12.2006
Consultant for the ART Program, PDoH	06.03.2007
National Hospital and ART Task Team Member, PDoH	16.03.2007
PDoH and ART Task Team Member, PDoH	30.11.2006 & 16.03.2007
iCAM Training Program, PDoH	16.03.2007
Social Expenditure, Provincial Treasury	16.03.2007
Social Expenditure, Provincial Treasury	16.03.2007
Social Expenditure, Provincial Treasury	16.03.2007
Local government	
Health department, municipality	06.07.2006

APPENDIX 2 Examples of interview guides used

Example 1: Interview guide for DoH program managers

SECTION I Introduction

- Letter of consent to sign
- Recording
- Research proposal: *The aim of the study is to explore the concept of absorptive capacity in the context of HIV/AIDS policies, and to learn from the South African experience. The study looks at the critical areas for scaling up ART where bottlenecks may arise.*
- Participant's background
    - Position
    - How long have you been in the post?
    - Mandate/focus of work, and how it relates to the area of absorptive capacity

SECTION II Absorptive capacity (AC)

My definition: "A country's absorptive capacity for higher HIV/AIDS funding for scaling up HIV/AIDS treatment through the public health sector is the capacity of the country, mainly the health system but not exclusively, to absorb and use the funds for the intended objectives in a way that tries to maximize the positive and minimize the negative impact on other health areas and that respects the core principles of equity, efficiency and sustainability of the country's health policy."

- What do you understand by absorptive capacity in the context of HIV/AIDS financing?
- How would you characterise the level(s) of absorptive capacity in South Africa (SA)?
- And in relation to expected future funding increases to respond to need?
- Do you think that there is also spare capacity that could be utilized? Where?
- In your opinion, do AC limitations hinder the expansion of the HIV/AIDS Comprehensive Plan (CP) in SA?

- It is possible to devise a two-phase plan of scaling up, firstly when there is spare capacity that can be utilised for the new program, and secondly when there is no spare capacity and thus new capacity needs to be built. Where are we?

SECTION III Financing of the Comprehensive Plan (CP)

- Do you think public HIV/AIDS financing has increased sufficiently and in a timely manner to respond to the demands of the CP?
- Do you think that underspending of allocations is a key problem or could be in the future?
- Does the implementation of the CP need more funding than that which is budgeted? In which specific areas?
- Are the big increases in funding reflected on the ground, at the implementation level?
- Are there provinces having problems with spending all allocated funds? And overspending? Which ones?

SECTION IV Progress in the implementation of the CP

- Based on your experience, how would you describe the progress in the implementation of ART in SA?
- How would you compare it with other African countries?
- What are the main results achieved in terms of objectives, and which ones need further work?
- Are there provincial differences in the implementation, and if so, what are they?

SECTION V Where are the bottlenecks in the South African experience?

- Is HIV/AIDS financing, especially for the CP, experiencing bottlenecks to spending? **(IMP)**
- At which level are limitations to absorptive capacity greater: local, provincial or national?
- Which of the following obstacles are hindering AIDS spending for scaling up ART?

- **GIVE TABLE:** Categorization of critical areas where bottlenecks may arise and potential obstacles in the scaling-up of funding for the Comprehensive Plan

	Bottleneck category	**Potential obstacles**
Inside health systems	FINANCIAL	-Conditional grants reporting requirements highly demanding -No HIV/AIDS spending specification of equitable shares -Weak financial management capacity at decentralised levels -Mismatch between DoH requests and Treasury allocations -Fiscal policies may restrict health spending
	HUMAN	-Shortage of medical personnel: doctors, nurses, laboratory technicians, pharmacists, nutritionists, counsellors -Shortage of non-medical personnel: program managers and administrators, data capturers and administrative clerks -Inadequate personnel management and training
	INFRASTRUCTURAL	-Insufficient clinic/hospital space -Lack of storage space for drugs -Inadequate laboratory infrastructure
	INSTITUTIONAL	-Poor monitoring and evaluation (M&E) information systems -Weak drug and medical equipment procurement systems -Need for integration of HIV and tuberculosis services -Lack of successful pilot studies -Inadequate political leadership
Outside health system	STRUCTURAL	-Issues of access: cultural barriers, stigma and transport -Insufficient reliability, predictability and coordination of funding -Lack of ownership of decision-making -Slow government bureaucratic system -Need for public-private partnerships -Lack of community outreach and participation -Need for social insurance schemes

Further questions

- Other obstacles? In which of the four categories?
- Which areas of the above still have spare capacity?
- What options are available to overcome these obstacles?
    - Which obstacles would be more responsive to the injection of funds **(IMP)**
    - Other than increasing funds; for example, reorganization of tasks
    - What actions have been taken to tackle the obstacles you have identified?
    - What are the potential negative impacts of these actions?

SECTION VI Health system strengthening (HSS)

- To what extent is the implementation of the CP crowding out and strengthening overall health services?
- Which effect is stronger? How do you strike a balance?
- How would you reconcile the need to devote more resources (financial, human, and infrastructural) to HIV/AIDS and the need to maintain a balance in public health systems?

SECTION VII Efficiency, equity and sustainability

Recognition of different measures and interpretations of these concepts

Efficiency

- To what extent may pressures to spend quickly and scale up ART rapidly compromise quality?
- Do differences between provinces reflect the overall differences in health systems? Are there other factors?
- Do you think that the CP can be successfully scaled up in the provinces with the lowest capacity?

Equity

- How is the implementation of the CP impacting on the overall objective of equity?

- Provincial equity (dealing with historical backlogs); urban vs. rural inequalities; gender; access issues.
- How does the NDoH measure progress on equity?

Sustainability

- What do you think are the challenges for the sustainability of ART in the long term? *[Examples: financing; implications of second line treatments – costs and need for more training; drug resistance; integration of ART within public health services]*
- Do you think the CP, as it is, is sustainable in the long term? What changes need to be made?
- What provisions are made by the DoH to ensure the sustainability of the CP in the future?
- Which other ones would you recommend in the case of SA?

SECTION VIII Final issues

Further questions

- Donors' role
- AC is dynamic: In which ways could AC be boosted for scaling up ART without compromising the overall goals and principles of health systems?
- Could you give me your opinion on the tentative selection of the Western Cape and Free State provinces for the purposes of this case study?

Petitions and Suggestions

- Further thoughts
- Questions by the participant
- Relevant grey literature
- Other suggested contacts

Example 2 Interview guide for Treasury participants

SECTION I Introduction

- Letter of consent to sign
- Recording
- Research proposal: *The aim of the study is to explore the concept of absorptive capacity in the context of HIV/AIDS policies, and to learn from the South African experience. The study looks at the critical areas for scaling up ART where bottlenecks may arise.*
- Participant's background
    - Position
    - How long have you been in the post?
    - Mandate/focus of work

SECTION II Absorptive capacity (AC)

My definition: "A country's absorptive capacity for higher HIV/AIDS funding for scaling up HIV/AIDS treatment through the public health sector is the capacity of the country, mainly the health system but not exclusively, to absorb and use the funds for the intended objectives in a way that tries to maximize the positive and minimize the negative impact on other health areas and that respects the core principles of equity, efficiency and sustainability of the country's health policy."

- What do you understand by absorptive capacity in the context of HIV/AIDS financing?
- How would you characterise the level of absorptive capacity in South Africa?
- And in relation to expected future funding increases?
- Do you think that there is also spare capacity that could be utilized?
- In your opinion, do the limitations of AC constitute an obstacle for the expansion of ART?
- How does Treasury assess the speed of funding increases in order to ensure absorption of funds? **(IMP)**
- Which mechanisms are used by Treasury to expand the capacity to absorb new HIV/AIDS funding?

- Which indicators are used to assess the effects of increasing HIV/AIDS financing on expanding absorptive capacity?

SECTION III HIV/AIDS financing

Mechanisms

- Roles of Treasury in relation to HIV/AIDS financing- *allocation of conditional grant (CG) to NDoH and equitable share (ES) to provinces.*
- Relationships between Treasury levels (national, provincial) in relation to AIDS financing
- Relationship between Treasury and DoH, national and provincial
- 3 major mechanisms: *CGs since 2000/01; ES targeted increases; own revenue*
- Preferred mechanism for funding HIV/AIDS, the CP and health, and why.

Financing

- How much has HIV/AIDS funding increased, and how much more is it expected to grow?
- Possible to identify funding for the CP and/or ART? – *"the new ARV treatment program announced in November 2003 is financed via R300 million added to the health HIV CG in the 2004/05 budget" (Hickey and Ndlovu 2005, p.629)*
- Which of the two mechanisms, CG and ES, is allocating more funds for HIV/AIDS and CP?
- How do Treasury allocations compare to requests from DoH through business plans? *(78% in 2002)*
- Are there HIV/AIDS programs demanding more funding than the allocated one? Examples
- Is National Treasury willing to give more AIDS funding than what the NDoH is willing to accept?

SECTION IV Conditional grants, equitable shares and own financing

Conditional Grants (CG)

- Spending

    - There has been a "massive improvement in spending of conditional grants, from 36% in 2000/01 to 99% in 2004/05" (ref. Ndlovu email 23 march 05)
    - "From 2001/02, aggregate spending on HIV/AIDS conditional grants matched or exceeded average spending on conditional grants generally" (Hickey, Ndlovu and Guthrie 2004, p.147)
    - The Free State and the Western Cape recorded 99% and 79% spending of AIDS conditional grants in 2003/04, and 97% and 100% in 2004/05.
- Allocation formula at national, provincial and local levels:
    - Criteria and responsible agents
    - To what extent does Treasury look at provincial underspending
- Strong requirements, though *some were relaxed in 2002/03 to facilitate spending* – which ones in particular?
- How do these requirements compare to requirements of other health conditional grants?
- *Three conditional grants for HIV/AIDS. The biggest is the one for health*. Future trends among the three
- Health CG for AIDS – how is it increasing over the years; what are the biggest components?
- What other CG for health exist? For how long? Performance?

Equitable Shares (ES)

- Only few provinces allocating discretionary expenditure, especially Gauteng and KZN
- Allocation formula:
    - Criteria for national ES allocations and provincial selection for HIV/AIDS by Cabinet
    - How do provinces know how much of targeted ES is allocated to HIV/AIDS? **(IMP)**
- How do Treasury and NDOH ensure HIV/AIDS investments of ES?
- Are provincial AIDS-ES a good indicator of provincial willingness to invest in HIV/AIDS?

Provincial own revenue

- Could donor funding contribute to provincial revenue directly? In which cases?

SECTION V HIV/AIDS spending

- Are there provinces having problems with spending all funds allocated? And overspending? Which ones?
- Do you consider that underspending of HIV/AIDS funding is a problem? Has it been so in the past, or may it become an issue in the near future? **(IMP)**
- How would you describe the level and evolution of spending of HIV/AIDS and for the CP?
- Are spending rates higher for CG or ES? Are 'rollovers' taken into account?
- How does it compare with underspending in other health areas
- Do you think that underspending of allocations is a key problem or has it been so in the past?
- To what extent is it a problem now in 2006?
- Does the implementation of the CP need more funding than budgeted? In which specific areas?
- Is Treasury able and willing to increase allocations for HIV/AIDS and health, provided there is good spending performance (quantity and quality of spending)?
- Have there been cases where funds unspent in certain provinces are being reallocated towards other provinces with better spending performance? *Claus 23.b. For both CG and ES? And non-AIDS?* ***(IMP)***
- Provincial underspending - *"some remain problematic and may struggle to spend the new ARV funds, notably the Eastern Cape and Mpumalanga" (Guthrie and Hickey p.158)*
- For these provinces are ES or CG more appropriate? What is done to redress capacity imbalances?
- How and when is spending accounted for in SA public system? When funds are disbursed, or paid?

Rollovers, and funds committed but not spent

Important as an indicator of money unspent

- What are the guiding principles for rollovers for both ES and CGs – calculation and management
- Are rollovers taken into account when calculating HIV/AIDS spending?
- Are they more important for CG than for ES?
- In which particular areas are rollovers higher?

SECTION VI Performance-based budgeting

- Moving towards performance-based budgeting? Which provinces doing better?
- Mechanisms used by Treasury and by NDoH to measure and implement budget performance
- Agents responsible for monitoring spending for ES and CG
- Is money spent 100% in designated HIV/AIDS targets? ES is difficult to track
- Indicators of financing performance used by Treasury
- How does HIV/AIDS financing score according to those indicators? Below/above average?
- Are there pressures to spend HIV/AIDS funding quickly? **(IMP)**
- Do you think pressures to spend quickly may compromise the quality of spending?
- Disbursement of funds: Responsible agent and criteria
- Integration of CG into ES in the future?
- How does the decentralisation process across the three levels affect HIV/AIDS financing performance?

SECTION VII Foreign contributions to HIV/AIDS financing

- How much are donors contributing to health and HIV/AIDS financing
- In which way are they contributing: financing and technical assistance
- Please explain mechanisms for assistance, funding through NDoH?
- Global Fund's principle of additionality would suggest that there is not enough funding

- Position of Treasury in relation to donor funding for HIV/AIDS
- How would you describe the relationship between donors and the SA Government in relation to HIV/AIDS?

SECTION VIII Where are the bottlenecks in the South African experience?

The focus of the analysis follows the flow of AIDS funds from National to PDoHs. Several obstacles can be encountered that may lead to the formation of bottlenecks where funds cannot be spent at the necessary speed. This study defines 'bottlenecks' as areas of congestion in the flow of funds.

Two criteria for identifying bottlenecks: (a) Where funding is allocated but not spent; (b) Where there is a need for funding (to achieve targets) but resources are not in place

- Is HIV/AIDS financing, especially for the CP, experiencing bottlenecks to spending? **(IMP)**
- At which level are limitations to absorptive capacity greater: local, provincial or national?
- Which of the following obstacles are hindering AIDS spending, especially for CP? **(IMP)**
- **GIVE TABLE:** Categorization of critical areas where bottlenecks may arise and potential obstacles in the scaling-up of funding for the Comprehensive Plan:

	Bottleneck category	Potential obstacles
Inside health systems	FINANCIAL	-Conditional grants reporting requirements highly demanding -No HIV/AIDS spending specification of equitable shares -Weak financial management capacity at decentralised levels -Mismatch between DoH requests and Treasury allocations -Fiscal policies may restrict health spending
	HUMAN	-Shortage of medical personnel: doctors, nurses, laboratory technicians, pharmacists, nutritionists, counsellors -Shortage of non-medical personnel: program managers and administrators, data capturers and administrative clerks -Inadequate personnel management and training
	INFRASTRUCTURAL	-Insufficient clinic/hospital space -Lack of storage space for drugs -Inadequate laboratory infrastructure
	INSTITUTIONAL	-Poor monitoring and evaluation (M&E) information systems -Weak drug and medical equipment procurement systems -Need for integration of HIV and tuberculosis services -Lack of successful pilot studies -Inadequate political leadership
Outside health system	STRUCTURAL	-Issues of access: cultural barriers, stigma and transport -Insufficient reliability, predictability and coordination of funding -Lack of ownership of decision-making -Slow government bureaucratic system -Need for public-private partnerships -Lack of community outreach and participation -Need for social insurance schemes

Further questions

- Other obstacles? In which one of the five categories?
- Which areas of the above have still spare capacity?

- To what extent CG and ES are used for tackling these bottlenecks? **(IMP)** E.g. training in financial and project management skills – to what extent do HIV/AIDS CGs include and use funds to build up provincial capacity?
- Could you please specify, for the obstacles you identified before, which ones are more serious?
- What options are available to overcome these obstacles?
    - Which obstacles would be more responsive to the injection of funds **(IMP)**?
    - Others than increasing funds; for example, reorganization of tasks?
    - What actions have been taken to tackle the obstacles you have identified?
    - What are the potential negative impacts of these actions?

SECTION IX Health system strengthening (HSS)

Crowding out

- How much money is being allocated to HIV/AIDS in comparison to other diseases?
- Is increasing AIDS expenditure crowding out in any way financing of other health areas?
- How can this be checked through a budget analysis? *See Hickey and Ndlovu (2005) analysis*
- What mechanisms are used for ensuring the balance between AIDS and health financing?
- Do the fast increases of HIV/AIDS funding become a burden on government officials in terms of management needs?

Strengthening

- Is increasing AIDS expenditure strengthening health system financing? In which ways?
- Which effect is stronger: strengthening or overwhelming health systems? How do you strike a balance?
- How would you reconcile the need to devote more resources (financial, human, infrastructural) to HIV/AIDS and the need to maintain the balance in public health systems? **(OPT)**

SECTION X Efficiency, equity and sustainability

Recognition of different measures and interpretations of these concepts

Efficiency

- What are Treasury's objectives in terms of the efficiency of HIV/AIDS and health financing?
- Mechanisms used by Treasury to measure and seek efficiency
- How are increases in HIV/AIDS financing impacting on efficiency objectives of health financing?
- Are there significant differences in the efficiency of funding spending by provinces?
- Do these differences reflect the overall differences in health systems? Other factors?
- To what extent may pressures to spend quickly compromise the efficiency of spending?
- How is the increasing financing for the CP impacting on the overall objective of efficiency in public health?
- Do you think that the necessary financing for the CP can be successfully scaled up in the provinces with the lowest capacity?

Equity

- What are the objectives of Treasury in terms of equity of HIV/AIDS financing?
- What mechanisms are used by Treasury to measure and procure equity of financing for AIDS/health?
- To what extent may pressures to spend quickly compromise the equity in spending?
- How is the increasing financing for the CP impacting on the overall objective of equity in public health?
- Provincial differences
    - Which provinces are receiving more funding (in relation to need)?
    - What mechanisms are used for dealing with historical backlogs?

    - How does resource allocation procure building up the capacity of worse off provinces?
- Mechanisms to deal with other equity issues: urban-rural inequalities; access issues; gender inequalities

Sustainability

- What do you think are the challenges for the sustainability of ART in the long term?
- In particular, what are the financial challenges?
- Does the rapidly increasing HIV/AIDS funding have any consequences at the macroeconomic and governance level in South Africa?
- What funding mechanisms, ES or CG, would be more sustainable in the long term?
    - If there is a need for earmarked funding, does it happen for any other disease interventions?
- Do you think the financing levels and mechanisms of the CP are sustainable in the long term?
- What provisions are made to ensure the sustainability of CP financing in the future?
- What other provisions would you recommend?
- Alternative financing mechanisms

SECTION XI Final issues

Further questions

- From your experience, in what ways could AC be boosted for the CP?
- What are, in your opinion, the main challenges and opportunities that SA faces in scaling up HIV/AIDS funding?
- Could you give me your opinion on the tentative selection of the Western Cape and Free State provinces for the purposes of this study? **(IMP)**
- What is the level of financing and spending of WC and FS in comparison to the national average?

Petitions and Suggestions

- Further thoughts
- Questions by the participant
- Relevant grey literature & Other contacts

Example 3 Interview guide for non-governmental participants

SECTION I Introduction

- Letter of consent to sign
- Recording
- Research proposal: *The aim of the study is to explore the concept of absorptive capacity in the context of HIV/AIDS policies, and to learn from the South African experience. The study looks at the critical areas for scaling up ART where bottlenecks may arise.*
- Participant's background
    - Position:
    - Mandate/focus of work
    - How long have you been in the post?
    - Work from your organisation related to this research

SECTION II Absorptive capacity (AC)

- What do you understand by absorptive capacity in the context of HIV/AIDS financing?
- How would you characterise the level of absorptive capacity in South Africa?
- How would you characterise it in relation to expected future funding increases?
- Do you think that there is also spare capacity that could be utilized?
- Do the limitations of AC constitute an obstacle for the expansion of ART?
- Which mechanisms could be used to indicate the level of absorptive capacity for ART across provinces?
- It is possible to devise a two-phase plan of scaling up, firstly when there is spare capacity that can be utilised for the new program, and secondly when there is no spare capacity and thus new capacity needs to be built. Where are we?

SECTION III Progress in the implementation of the Comprehensive Plan (CP)

- How would you describe the progress of implementation of ART/CP in SA?
- How would you compare it with other African countries? Is the SA approach more horizontal?
- How would you describe the speed in the implementation?

- Statistics: number of people tested, on ART; number of women receiving PMTCT; number of sites accredited and delivering ART
- Which objectives have been achieved, and which ones need further work?
- What provincial differences exist in the implementation?
- Do you think there is strong pressure put on the DoH to deliver ART quickly?

SECTION IV Financing of the CP

- Do you think public HIV/AIDS financing has increased sufficiently and in a timely manner to respond to demands?
- Are the big increases in funding reflected on the ground, at the level of implementation?
- Are there provinces that have a problem to spend all funds allocated? And overspending? Which ones?
- Do you have any special comments on the Western Cape and the Free State?
- Do you think that insufficient capacity to spend is a problem or has it been so in the past?
- In your opinion, does the implementation of the CP need higher increases of funding than the planned ones? In which specific areas?
- Do you think that public HIV/AIDS funding is going to the right areas? (prevention vs. treatment; ...)

SECTION V Where are the bottlenecks in the South African experience?

The focus of the analysis follows the flow of AIDS funds from National to PDoHs. Several obstacles can be encountered that may lead to the formation of bottlenecks where funds cannot be spent at the necessary speed. This study defines 'bottlenecks' as areas of congestion in the flow of funds.

Two criteria for identifying bottlenecks: (a) Where funding is allocated but not spent; (b) Where there is need for funding (to achieve targets) but resources are not in place

- Is HIV/AIDS financing, especially for the CP, experiencing bottlenecks to spending?
- At which level are limitations to absorptive capacity greater: local, provincial or national?

- **GIVE TABLE:** Based on your experience, which of the following obstacles are hindering spending on HIV/AIDS, especially on the CP?

	Bottleneck category	**Potential obstacles**
Inside health systems	FINANCIAL	-Conditional grants reporting requirements highly demanding -No HIV/AIDS spending specification of equitable shares -Weak financial management capacity at decentralised levels -Mismatch between DoH requests and Treasury allocations -Fiscal policies may restrict health spending
	HUMAN	-Shortage of medical personnel: doctors, nurses, laboratory technicians, pharmacists, nutritionists, counsellors -Shortage of non-medical personnel: program managers and administrators, data capturers and administrative clerks -Inadequate personnel management and training
	INFRASTRUCTURAL	-Insufficient clinic/hospital space -Lack of storage space for drugs -Inadequate laboratory infrastructure
	INSTITUTIONAL	-Poor monitoring and evaluation (M&E) information systems -Weak drug and medical equipment procurement systems -Need for integration of HIV and tuberculosis services -Lack of successful pilot studies -Inadequate political leadership
Outside health system	STRUCTURAL	-Issues of access: cultural barriers, stigma and transport -Insufficient reliability, predictability and coordination of funding -Lack of ownership of decision-making -Slow government bureaucratic system -Need for public-private partnerships -Lack of community outreach and participation -Need for social insurance schemes

Further questions

- Other obstacles? In which one of the four categories?

- Which areas of the above still have spare capacity?
- Importance of obstacles
- What options are available to overcome these obstacles?
    - Which obstacles would be more responsive to the injection of funds?
    - Which other options besides increasing funds? For example, reorganization of tasks
    - What actions have been taken to tackle the obstacles you have identified?
    - What are the potential negative impacts of these actions?
    - How long would it take to tackle these issues? Short-, medium-, long-term

SECTION VI Health System Strengthening (HSS)

- To what extent does HIV/AIDS erode the capacity of health systems to deliver services?
- Which areas of health systems are more directly affected by the implementation of the CP?
- Which approach would you say prevails for ART: using existing structures (TB, ANC) vs. creating new ones?
- To what extent and in which way do you think the implementation of the CP is strengthening overall health services?
- Do you think that the priority given to HIV/AIDS treatment services is jeopardising other health areas?
- Which effect do you think is stronger: strengthening or overwhelming health systems?
- How would you reconcile the need to devote more resources (financial, human, infrastructural) to HIV/AIDS and the need to maintain a balance in public health systems?
- Do you see the process of integration of ART within public health services happening through a more horizontal approach rather than a vertical one, including budgets?

SECTION VI Efficiency, equity and sustainability

Efficiency

Recognition of different measures of efficiency

- Are there significant differences in efficiency in the implementation of ART by the different provinces?
- Do you think these differences reflect the overall differences in health service delivery?
- How is the implementation of the CP impacting on the objective of efficiency of public health services?
- To what extent do you think that pressures to spend quickly may compromise efficiency of service delivery?
- Still, do you think that the CP can be successfully scaled up in the provinces with the lowest capacity?
- Challenges and opportunities- recommendations

Equity

- How is the implementation of the CP impacting on the overall objective of equity?
- Provincial equity: Need to deal with historical backlogs
- Urban vs. rural inequalities
- HIV/AIDS prioritised over other diseases, creating inequities within health systems
- Capacity to benefit: access issues
- Gender equity
- Challenges and opportunities – recommendations

Sustainability

- What do you think are the challenges for the sustainability of ART in the long term?
- Do you think the CP, as it is, is sustainable in the long term?
- What provisions are made to ensure the sustainability the CP in the future?
- What other provisions would you recommend?
- Role of donor support

- Challenges and opportunities – recommendations

SECTION VIII Final issues

Further questions

- From your experience, in what ways could AC be boosted for the CP?
- Could you give me your opinion on the tentative selection of the Western Cape and Free State provinces for the purposes of this case study?

Petitions and Suggestions

- Further thoughts
- Questions by the participant
- Relevant grey literature
- Other contacts

Example 4 Specific questions by area of interest

(A) On Human Resources (HHRR)

New National Human Resources Plan for Health

- There is the new plan *A National Human Resources Plan for Health to provide skilled human resources for healthcare adequate to take care of all South Africans 2006* in response to the human resource demands. Could you please describe the core areas of this plan?
- Major steps taken in implementation of the plan.
- What specific areas are expected to benefit more directly from the Comprehensive Plan?

HHRR for HIV/AIDS-related programs

- Could you please describe the department's strategy in responding to the needs of HIV/AIDS programs, specifically the CP?
- How many people have been trained and employed for HIV/AIDS specific issues and/or the Comprehensive Plan?
- What proportion of the newly trained personnel on HIV/AIDS is recruited from other health areas?
- Could you please compare the demands placed on HHRR by HIV/AIDS treatment programs in relation to other health programs?

Challenges and options

- What are the main challenges faced in building the capacity of HHRR for the CP?
    - Medical personnel: doctors, nurses, lab technicians, nutritionists, counsellors
    - Non-medical personnel: program managers and administrators, data capturers and administrative clerks
    - Personnel management and training
- What options are available to overcome these obstacles?

    - Injection of funds: Which obstacles would be more responsive to the injection of funds? **(IMP)**
    - What other options are there besides increasing funds, *e.g*. reorganization of tasks?
    - What actions have been taken to tackle the obstacles you have identified?
    - What are the potential negative impacts of these actions?
    - How long would it take to tackle these issues? Short-, medium- or long-term
- What is the strategy of the department in relation to issues of
    - Brain drain and employment of overseas personnel
    - Recruitment of personnel for rural and less attractive areas
    - Demands on salary increases, if an issue?

Critical issues

- Are the new resources for HIV/AIDS policies facilitating revitalisation of HHRR for the overall health system (not just for HIV/AIDS programs)? In which ways?
- Is training of HIV/AIDS related personnel a priority over other health interventions? Is it taking away resources (in terms of funds, time and attention) from other health areas?
- Do HHRR employed on HIV/AIDS-related programs have better working conditions than their equals in other programs?
- May pressures to increase personnel on ART undermine the overall health system's balance?
- What is the department doing to manage the competing demands?
- Tensions between private vs. public sectors
- In which ways do you see HIV/AIDS policies having a positive impact on the overall health system's capacity?
- Are there provincial differences, in particular for the provinces of the Western Cape and Free State
- Donor support, specifically for HIV/AIDS programs
- How does the department share responsibilities with other departments in overlapping areas of responsibility, such as tertiary medical education?

(B) On drug procurement

- Can you please describe the ARV drug procurement system of the Western Cape and the Free State? Who does what?
- Has the CP changed the system in any ways?
- There is a parallel system for ART in the Western Cape – how was this decision taken?
- How does it compare with SA's?
- Is procurement outsourced?
- Is it related to medical procurement and laboratory at all?
- Outputs/efficacy of drug procurement in terms of the CP – what are the challenges?
- Financing
- Human resources –
    - Accreditation of ART sites require a pharmacist – is this a problem?
    - There is low payment in the public sector – is this a problem?
    - Will middle level professionals solve the problem?
- Procurement
    - Tender processes – long time to finalise;
    - Nationally managed
    - Importation of drugs
- Management
    - Lack of storage space
    - Stock-outs? Stock management capacity– at different levels
- ARVs
    - Drug resistance
    - Lack of trust related to Minister's double messages
- Others
    - Registration of new drugs, i.e.
    - Package of drugs from local industry in ways that support adherence
    - Using drugs that are easier to take
- Is drug procurement and management holding back expansion of ART in the Western Cape and Free State provinces, and nationally in South Africa?

APPENDIX 3 Provincial profile: Western Cape and Free State socio-economic indicators

Indicators	Western Cape	Free State	South Africa
Demographic			
Population density per km^2	36.6	22.79	38.86
Population mid-year estimate (2006)	4,745,500	2,958,800	47,390,900
- proportion African	23.57%	85.07%	77.99%
- proportion Coloured	53.74%	2.84%	8.54%
- proportion Indian	1.06%	0.1%	2.45%
- proportion White	21.61%	11.9%	11.0%
Economic			
Contribution to national GDP 2005	14.7%	5.5 %	100%
GDP per head (2006) (Rds)	41,138	16,504	35,994
GDP growth rate (2006)	5.7%	4.2%	5.4%
Gini coefficient (2005)	0.58	0.64	0.65
Education			
Proportion of adults with no education [a] (2005)	3.4%	9.2%	10.3%
Proportion of people 15+ literate [b] (2005)	95.3%	89.9%	88.5%
Learner-to-educator ratio (2006)	29.8:1	29.2:1	31.8:1
Matric [c] pass rate (2006)	84%	72%	67%
University entrance pass rate (2006)	27%	20%	16%
Health			
Maternal mortality rate[d] (2003)	70	234	110
Life expectancy at birth, projected (2010)	60.3	46.5	50.4
Under-five mortality rate [e] (2007)	39	86	74
Proportion of women attending antenatal clinics HIV-positive (2005)	15.7%	30.3%	30.2%
Total HIV infections (2006)	267,289	387,770	5,372,474
AIDS deaths (2006)	11,922	27,207	
Proportion of population HIV-positive	5.6%	14%	393,777

(2007)			
TB cases reported (2004)	58,577	29,790	529,320
Proportion of TB and HIV-positive (2004)	50.4%	70.5%	66.4%
People without medical aid (2005)	3,599,000	2,541,000	40,273,000
Residents per public sector doctor (2006)	3,539:1	5,438:1	4,974:1
Residents per qualified nurse [f] (2006)	346:1	258:1	241:1
Beds in public and private hospitals (2004)	14,185	7,677	135,977
Estimated per capita health spending (public sector) (2006/07) (Rds)	1,622	1,398	1,206
Proportion of public health professional posts vacant (2006)	16.9%	40.4%	29.0%
Living conditions			
Households living in formal dwellings (2005)	78.7%	69.2%	69.6%
Households living in informal dwellings (2005)	17.3%	18.3%	15.9%
Households living in traditional dwellings (2005)	0.0%	4.7%	11.8%
Households without water in dwellings (2005)	30.8%	67.6%	62.8%
Households without basic sanitation [g]	3.4%	3.1%	7.9%
Households without electricity (2005)	5.8%	12.6%	19.8%
Households without access to a cell/telephone (2005)	1.6%	7.5%	6.0%
People living on less than 1$/day (2006)	97,945	283,899	4,228,787
Rate of urbanisation (2006)	89.7%	73.8%	56.4%

[a] People aged 20 years and older
[b] People 15 and older, excluding people who could only read
[c] South African exam taken at the last year of secondary schooling
[d] The number of women who die as a result of childbearing, during the pregnancy, or within 42 days of delivery or termination of pregnancy, in one year
[e] The number of children under five years old who die in a year per 1.000 live births
[f] Public and private sector nurse
[g] Basic sanitation is defined as a pit latrine with ventilation
Source: South African Institute of Race Relations (2007)

APPENDIX 4 Participation consent form

Title of Research: *HIV/AIDS Policies and Absorptive Capacity in South Africa: Identifying the Bottlenecks, Unleashing the Capacity.*

Purpose of Research: This research aims to contribute to the understanding of HIV/AIDS policies and absorptive capacity in the South African context. The objective is to identify the major bottlenecks created by HIV/AIDS funding and the major obstacles encountered, specifically in the provinces of the Free State and the Western Cape. The research is conducted in partial fulfilment of the doctoral degree of the investigator at the University of Cape Town.

Funding of research: The research is partially funded by the Spanish Foundation *Fundación Carolina*, a non-governmental and non-political organization, www.fundacioncarolina.es.

Interview process: If you agree to participate, the investigator will interview you in accordance with a questionnaire, in order to collect information in a systematic manner. The expected timeframe of the interview is 1 hour.

Confidentiality: If you consent, the interview will be recorded. Records of the interview will be kept strictly confidential, and your reference and name will not appear in any reports of the study without your consent.

Risk and harms. There is no risk in participating in this research.

Expected benefits to your organisation and others. You will not benefit directly or personally from this study. Hopefully, however, findings from this study will be useful to your organisation and other related HIV/AIDS organisations in South Africa.

Costs in participating. Your participation in the study is at no costs to you or your organization.

Contact person. Further communication after the interview in order to clarify issues, expand on the contents of the interview, or raise concerns is welcome at any time. Below are the contact details:

(…)

Consent of the participant

I, Dr./Mr./Ms. _____ have read and understood the information above. By appending my signature to this form, I hereby consent to participate freely in this study. I also understand that I have the right to withdraw at any time without being penalized.

_____ _____

Name of the Participant Signature

_____ _____

Interviewer's name Signature

Date _____

APPENDIX 5 The methodology of National AIDS Spending Assessment (NASA)

NASA follows financial transactions from the source to the beneficiaries. The methodology employed is based on double entry tables – matrices – to represent the origin and the destination of resources. Financial flows and expenditures related to the response to HIV/AIDS, both health and non-health related, are organised according to three dimensions and six categories:

1. Financing:
    a. Sources: public, private, international
    b. Agents: who decide the use of the funds
2. Provision:
    a. Providers: hospitals, ambulatory services, pharmacies, Ministry of Health and other Ministries, etc.
    b. Production factors: health, health-related, non-health
3. Use:
    a. Spending categories: budgetary items such as salaries of health personnel, equipment, administration, etc.
    b. Beneficiaries: population beneficiary segments such as vulnerable groups, schools, military, children, recipients of treatment, etc.

Source: Avila (2007) and UNAIDS (2007)

APPENDIX 6 The Paris Declaration on aid effectiveness: Indicators of progress

The Paris Declaration, endorsed on 2 March 2005, is an international agreement to which over one hundred Ministers, Heads of Agencies and other Senior Officials agreed to adhere, and in terms of which they committed their countries and organisations to increasing their efforts in harmonisation, alignment and managing aid for results with a set of actions and indicators to be monitored. They agreed upon a total number of 12 indicators of progress:

1. Partners have operational development strategies
2. Countries have reliable financial and procurement systems
3. Aid flows are aligned to national priorities
4. Capacity is strengthened through co-ordinated support
5. Countries' public financial management systems are used
6. Countries' procurement systems are used
7. Capacity is strengthened by avoiding parallel implementation structures
8. Aid is more predictable
9. Aid is untied
10. Common arrangements or procedures are used
11. Frameworks are results-oriented
12. Donors and recipients are mutually accountable

Source: High Level Forum (2005)

APPENDIX 7 HIV/AIDS Epidemiology in South Africa: Basic statistics, 2000-2006*

	2000	2001	2002	2003	2004	2005	2006	2007
Numbers (total and infected)								
Total population	44871939	45504436	46086931	46608823	47071290	47486216	47866984	48218209
Total HIV infections	3559585	4024100	4419443	4741791	4997457	5203773	5372476	5511751
Total AIDS sick (in the middle of year)	182823	253502	333807	418592	503725	554629	599298	633931
Non-AIDS deaths (in the year starting 1 July)	377113	377271	381010	384324	387210	389753	392053	394197
AIDS deaths (in the year starting 1 July)	147525	191589	237435	282348	315870	336901	354379	367000
Accumulated Aids Deaths (to middle of the year)	302790	450315	641904	879339	1161686	1477556	1814457	2168836
Prevalence rates								
Antenatal clinics	22.3%	24.1%	25.5%	26.5%	27.3%	27.9%	28.3%	28.7%
Women aged 15 – 49	15.2%	16.7%	18.1%	19.1%	20.0%	20.7%	21.2%	21.6%
Men aged 15 – 49	12.2%	13.4%	14.2%	14.7%	15.0%	15.2%	15.4%	15.4%
Adults aged 15 – 49	13.7%	15.1%	16.2%	17.0%	17.6%	18.0%	18.3%	18.6%
Total population	7.9%	8.8%	9.6%	10.2%	10.6%	11.0%	11.2%	11.4%
Incidence rates								
Total population	1.5%	1.4%	1.4%	1.3%	1.3%	1.3%	1.2%	1.2%
Total new infections	621415	600940	578065	559688	546473	531935	521607	512931
Mortality statistics								
Life expectancy at birth	56.2	54.9	53.5	52.2	51.4	51.0	50.7	50.5
Maternal orphan statistics								
Total orphans (in middle of year)	739054	819651	922786	1051849	1203969	1371626	1542201	1708032
Total AIDS orphans (in middle of year)	158073	240533	349506	486940	650736	832246	1018548	1201675
Staging								
Pre-AIDS	3376762	3767835	4076157	4302039	4455024	4548084	4588562	4589436
Untreated AIDS	182823	252580	330647	411539	490822	520942	537759	537803
On ART	0	3424	11700	26020	47434	123990	225775	351489
Discontinued ART	0	260	939	2194	4177	10757	20379	33022

* For flow items over the standard calendar year (1 Jan to 31 Dec)
Source: ASSA (2005b)

APPENDIX 8 Provincial epidemiology of HIV/AIDS in South Africa, 2006*

	EC	FS	GT	KZ	LM	MP	NC	NW	WC
Numbers (total and infected)									
Total population	6693156	2795556	9683782	9791815	5748394	3335162	888715	3773095	4994244
Total HIV infections	666822	387770	1407486	1540183	396873	446010	61415	480387	267289
Total AIDS sick (in the middle of year)	64096	46249	156328	193028	39474	57470	5385	54083	19736
Non-AIDS deaths (in the year starting 1 July)	65247	25801	70956	85124	37869	25606	8108	30147	41691
AIDS deaths (in the year starting 1 July)	39987	27207	89309	113082	24344	33392	3326	32077	11922
Prevalence rates									
Antenatal clinics	27.7%	33.7%	35.8%	40.2%	19.6%	32.5%	19.9%	29.2%	15.5%
Women aged 15 – 49	21.2%	25.1%	24.5%	29.7%	14.9%	25.1%	13.3%	22.9%	10.8%
Men aged 15 – 49	13.2%	19.1%	20.0%	22.3%	8.7%	18.3%	9.0%	18.1%	6.4%
Adults aged 15 – 49	17.4%	22.2%	22.2%	26.2%	12.1%	21.8%	11.2%	20.5%	8.6%
Total population	10.0%	13.9%	14.5%	15.7%	6.9%	13.4%	6.9%	12.7%	5.4%
Incidence rates									
Total population	1.3%	1.5%	1.3%	1.7%	0.9%	1.4%	0.8%	1.3%	0.6%
Total new infections	80968	35073	111589	136582	46691	40684	6907	44153	27605
Mortality statistics									
Life expectancy at birth	48.8	46.7	52.2	43.0	56.0	46.4	57.3	50.2	61.5
Maternal orphan statistics									
Total orphans (in middle of year)	225618	102737	277109	480004	136752	143919	17160	114628	77739
Total AIDS orphans (in middle of year)	124055	69265	203287	360026	78569	106895	7884	78262	29830
Staging									
Pre-AIDS	585298	329748	1188560	1299662	344011	374185	53674	409594	229520
Untreated AIDS	58287	42325	135462	177198	35011	52685	4600	48513	13725
On ART	21371	14379	76514	58089	16371	17511	2888	20441	22029
Discontinued ART	1866	1318	6951	5234	1480	1629	254	1839	2015

* Flow items over the standard calendar year (1 Jan to 31 Dec)

EC: Eastern Cape, FS = Free State, GT = Gauteng, KZ = KwaZulu-Natal, LM = Limpopo, MP = Mpumalanga, NC = Northern Cape, NW = North West, WC = Western Cape

Source: ASSA (2005b)

APPENDIX 9 Estimated new AIDS cases per province, 2003-2007

Province	2003	2004	2005	2006	2007
Eastern Cape	48,758	60,228	71,975	83,259	93,278
Free State	29,310	34,987	40,128	44,247	46,960
Gauteng	64,150	77,036	88,638	97,751	103,429
KwaZulu-Natal	124,511	144,430	160,930	172,311	177,547
Limpopo	34,823	42,507	50,190	57,311	63,296
Mpumalanga	38,670	44,649	49,673	53,336	55,403
Northern Cape	3,948	4,977	6,039	7,057	7,949
North West	36,155	43,545	50,421	56,106	60,079
Western Cape	8,376	10,482	12,664	14,803	16,779
South Africa	**388,701**	**462,841**	**530,658**	**586,181**	**642,720**

Figures exclude people covered by medical aid. Figures are not cumulative
Source: DoH (2003a, p.240)

APPENDIX 10 Chronological overview of South African HIV/AIDS policy developments

1992: National AIDS Coordinating Committee of South Africa formed

1994: National AIDS Plan for South Africa formulated

1995: HIV/AIDS and STD Program (1995-1996) developed by DoH

1997: Review of HIV/AID strategy and program leads to government five-year action plan (1998)

1998: National Interdepartmental Committee on HIV/AIDS (IDC) established to coordinate and support response to HIV/AIDS by national government departments.

1998: Partnership Against AIDS launched to provide for greater multisectoral collaboration

1998: South Africa national AIDS Council (SANAC) set up to represent partnership between government and civil society

2000: HIV/AIDS and STI Strategic Plan for South Africa, 2000-2005, adapted, providing framework for coordinated response to HIV/AIDS, STIs and other opportunistic infections

2000: Impact and Action Project launched to assist public sector in mitigating impact of HIV/AIDS

2000: Nine HIV/AIDS-related guidelines on the management of HIV/AIDS launched

2000: Formal partnership formed between government and South Africa AIDS Vaccine Initiative

2001: Integrated Plan for Children and Youth Infected and Affected by HIV/AIDS developed

2003: Summary Report of The Joint Health and Treasury Task Team Charged with Examining Treatment Options to Supplement Comprehensive Care for HIV/AIDS in the Public Health Sector. 01 August 2003.

2003: Operational Plan for Comprehensive HIV and AIDS Care, Management And Treatment for South Africa. Launched 19 November 2003.

2004: 1st Progress Report: Comprehensive HIV and AIDS Care, Management and Treatment Plan for South Africa.

2004: National Antiretroviral Guidelines. 1st Edition

2006: Progress Report on Declaration of Commitment on HIV and AIDS. Prepared for United Nations Assembly Special Session on HIV and AIDS

2006: Broad Frame-work for HIV and AIDS and STI Strategic Plan for South Africa, 2007-2011. November 2006.

2007: HIV and AIDS and STI Strategic Plan for South Africa, 2007-2011.

Source: Adapted from DoH (2003c and 2007) and Hickey et al. (2004)

APPENDIX 11 Requirements for the accreditation of service points for the Comprehensive Plan

The following criteria summarise the conditions necessary at an ART service point to ensure high quality comprehensive HIV/AIDS care and treatment.

1. Presence of a service point project manager, who will supervise program conduct and expansion. Where practical and effective, a project manager may supervise program conduct and expansion for more than one service point.

2. Availability of a trained care team on-site with representation of all relevant professions (clinicians, nurses, and counsellors), easy access to trained laboratory, pharmacy and nutritional staff, and links to NGOs and other service providers. The care team should consist of sufficient staff in appropriate ratios to manage the projected number of patients.

3. Implementation and maintenance of current standards of care as provided by the National Treatment Policy Guidelines.

4. Access to care 24-hours a day at the service point, or in the direct vicinity, with coverage relationships explicit to both facility staff and patients.

5. A staff recruitment, training and skills development plan in place for health care workers responsible for HIV and AIDS care and treatment (including volunteers and lay counsellors) based on initial needs and projected long-term patient numbers.

6. Appropriate numbers of consultation, treatment and counselling rooms should be available to assure patient confidentiality, based on projected patient numbers.

7. Access to appropriate laboratory services, which have appropriate equipment, trained operators, and an effective maintenance plan, overseen by the NHLS. Adequate specimen preparation protocols should be in place for service points accessing laboratory services outside their own facilities.

8. Secure and adequate pharmacy storage, and sufficient cold-chain capacity, appropriate to handle Schedule 5 drugs.

9. Adherence to drug dispensing Standard Operating Procedures (SOPs) for OI prophylaxis and treatment, and ARVs.

10. Access to patient nutritional status assessment and nutritional support.

11. Existing links with on-site and/or proximal VCT centres, antenatal clinics, FP clinics, TB clinics, STI clinics, TB/HIV demonstration districts, and any other patient referral facilities, to ensure that HIV-positive patients are formally referred to the accredited service point.

12. A PMTCT program in place for service points providing antenatal care and a referral system in place for sites without antenatal care facilities.

13. Formal referral systems and links with other operations within the service point (inpatient wards, other clinics, support units) and outside expertise (secondary/tertiary care facilities and sub-specialties, including neurology, ophthalmology, oncology, pulmonary and infectious diseases).

14. Referral systems and linkages with community resources (NGOs, CBOs, home-based care, faith-based organisations, PLWHA groups, traditional health practitioners, community leaders, industry, and other support organisations) that complete the continuum of medical care and support services.

15. Linkages in place with support organisations and NGOs to ensure continuous care and support in the home and community, including support groups, adherence support, educational activities, bereavement counselling and family support.

16. A system in place to track patients/treatments.

17. A system in place to maintain medical records and to transmit core data to a central data collection point.

18. A system in place to ensure that durable equipment is appropriately inventoried and service and maintenance agreements are in place. Where equipment is needed, the service point shall have a plan for procuring and installing the equipment.

19. 24-hours post-exposure prophylaxis (PEP) access, according to the latest national guidelines.

20. A plan for channelling into the care system HIV-positive blood donors, patients treated with PEP, and prison populations identified as HIV-positive.

21. Established links with the provincial HIV and AIDS Unit to coordinate briefing of local officials and to streamline input from local advisory committees.

22. Identification of technical assistance needs in administrative and various other technical areas, including medical training.

23. Participation in Information, education and communication activities, in particular by enlisting resources to help educate patients, families and communities about the basics of HIV and AIDS care and treatment, the role that ARV treatment can play, and the difficulties inherent in lifelong treatment for affected individuals and their families.

Source: DoH (2003a, p.98)

APPENDIX 12 Evolution of projected costs in the Comprehensive Plan, disaggregated by intervention, 2003/04-2007/08

R thousand	2003/04	2004/05	2005/06	2006/07	2007/08
New healthcare staff	21	322	432	662	1,027
Laboratory testing	20*	152	311	520	806
Antiretroviral drugs	42	369	725	1,118	1,650
Nutrition	63	343	421	532	656
Other health system upgrades	70	171	184	160	160
Program management	16	103	128	128	128
Capital investment	30	75	100	100	0
Research	34	55	55	48	48
Total	**296**	**1,590**	**2,358**	**3,268**	**4,474**

* Includes R20 million advance payment to NHLS until March 2004
Source: DoH (2003a, p.48)

APPENDIX 13 Core indicators of the Comprehensive Plan to be reported within six months of the launch of the plan

- Number of accredited service points per district;
- Percentage of facilities experiencing stock-out of a basket of tracer drugs at any time in the last month;
- Full time equivalent per category as proportion of required personnel;
- Male and female condom distribution rate;
- Percentage of eligible patients receiving supplement meal and micronutrient supplements;
- Proportion of adult patients on antiretroviral therapy with adherence lower than 70% (unacceptable level of adherence);
- Number of CD4 counts done per month;
- Number of patients on treatment;
- Number of viral loads completed per month;
- Proportion of registered patients on regimen 1a or 1b, 2 or child regimen;
- Percentage of patients with viral load < 400 copies/ml;
- Percentage of patients with CD4> 200/mm^3;
- Percentage of patients with weight gain >10% compared to baseline.

Source: DoH (2004a, p.iv)

APPENDIX 14 Coverage of new AIDS cases per new ART enrolments, 2006, by province

Province	ART enrolments, Sept. 2005 (cumulative) [a]	ART enrolments Sept. 2006 (cumulative) [a]	New ART enrolments, 2006 [b]	New AIDS cases 2006 [c]	Coverage of new AIDS patients, 2006 [d]
Eastern Cape	9,664	24,920	15,256	83,259	18% (5)
Free State	1,478	6,950 [e]	5,472	44,247	12% (7)
Gauteng	27,904	55,580	27,676	97,751	28% (3)
KwaZulu-Natal	21,470	59,404	37,934	172,311	22% (4)
Limpopo	3,689	11,660	7,971	57,311	14% (6)
Mpumalanga	2,766	7,989	5,223	53,336	10% (8)
Northern Cape	8,598	21,579	12,981	7,057	184% [g] (1)
North West	1,464	4,476	3,012	56,106	5% (9)
Western Cape	11,810	21,270	9,460	14,803	64% (2)
Total	**88,843**	**213,828**	**124,985**	**586,181**	**21%**

[a] The source does not specify if it refers to public and private provision of ART or only to provision through the public sector.
[b] Not cumulative. Calculated as deduction of cumulative cases in September 2006 from those in September 2005. It is not clear from the source whether it includes those on medical aid or not.
[c] Not cumulative, from December 2005 to December 2006. It only includes those not covered by medical aid.
[d] Percentage of new ART enrolments from new AIDS cases. It is an imprecise indicator due to the difference in months (September – December) of both components, and there may be an error if people covered by medical aid are included in the estimated new ART enrolments. Provincial ranking in brackets.
[e] This number may underestimate the real figure, as data for September was not reported and the number for June 2006 was used instead.
[f] A figure over 100% may be due to (a) the assumption that there are more people in need of ART than people sick with AIDS, as the ASSA2003 model (ASSA 2003b) assumes that 75% of people cease to be classified as 'AIDS sick' after starting ART; however, this is unlikely as it is not cumulative data, only new cases; (b) it may indicate enrolment of patients from other provinces, although the number seems too high to be explained by this factor only; or (c) inaccurate data.
[g] The figure for the Northern Cape showing approximately three times as many people enrolled as people sick from AIDS suggests that there may be something wrong with the data, but no explanation can be provided.
Source: Author's calculation of new ART enrolments based on data from DoH (2006a) for 2006, and SACOB (2007) for 2005. Data for estimated new AIDS cases from DoH (2003a). Coverage of new AIDS patients from author's calculations.

APPENDIX 15 Inflation and deflators used in the budget analysis in Chapter 5

Inflation rates based on the Consumer Price Index[a]

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2000	7	7.2	7.4	7.7	7.9	7.9	7.9	8.1	8.1	8	7.7	7.7
2001	7.7	7.7	7.5	6.7	6.5	6.4	6.4	6	5.8	5	6.3	6.5
2002	7.1	7.4	7.7	8.3	8.6	9.2	9.1	9.9	10.8	11.3	11.3	10.8
2003	10	9.3	9.3	8.5	7.7	6.4	6.6	6.3	5.4	4.4	4.4	4
2004	4.2	4.8	4.4	4.4	4.4	5	4.2	3.7	3.7	4.2	4.6	4.3
2005	3.6	3.1	3.6	3.8	3.9	3.5	4.2	4.8	4.7	4.4	3.7	4
2006	4.3	4.5	3.8	3.7	4.1	4.8	4.9	5	5.1	5	5	5
2007	5.3	4.9	5.5	6.3	6.4	6.4	6.5	6.3	6.7	7.3	7.9	8.6
2008	8.8	9.4	10.1									

[a] Projection of CPIX for 2008/09 is 5.4 (NT 2008a)
Source: SSA (2008a) and NT (2008a)

Deflator used with 2006/07 base year

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Deflator	0.67	0.73	0.78	0.87	0.92	0.96	1.00	1.07	1.13

Source: Author's calculations based on SSA (2008a) and NT (2008a)

APPENDIX 16 Increases in total, conditional and discretional HIV/AIDS funding in PDoHs, nominal and real

Growth in total HIV/AIDS expenditure, nominal and real

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Nominal expenditure (R million)	67	97	317	614	1,148	1,682	2,441	2,734	2,960
Real expenditure (R million)	99	132	405	707	1,248	1,754	2,441	2,548	2,617
Growth rate, nominal (%)		44.8	227.3	93.5	86.9	46.5	45.2	12.0	8.3
Growth rate, real (%)		33.4	206.1	74.5	76.4	40.6	39.2	4.4	2.7

Growth HIV/AIDS conditional grants expenditure to PDoHs, nominal and real

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Nominal expenditure, (R million)	17	54	210	334	782	1,135	1,567	1,646	1,735
Real expenditure,	25	74	268	385	850	1,184	1,567	1,534	1,534
Growth rate, nominal (%)		217.6	288.9	59.0	134.1	45.1	38.1	5.0	5.4
Growth rate, real (%)		192.8	263.7	43.4	121.0	39.2	32.4	-2.1	0.0

Growth in HIV/AIDS discretionary expenditure in PDoHs, nominal and real[a]

	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Nominal expenditure (R million)	50	43	107	280	366	547	874	1,088	1,225
Real expenditure, (R million)	74.1	59	137	323	398	570	874	1,014	1,083
Growth rate, nominal (%)		-14.0	149.9	160.7	30.5	49.5	59.9	24.5	12.6
Growth rate, real (%)		-20.7	133.7	135.1	23.2	43.5	53.3	16.0	6.8

Real terms in 2006/07 prices.

[a] Calculated by deducting conditional grants from the total HIV/AIDS expenditure of provincial budget statements

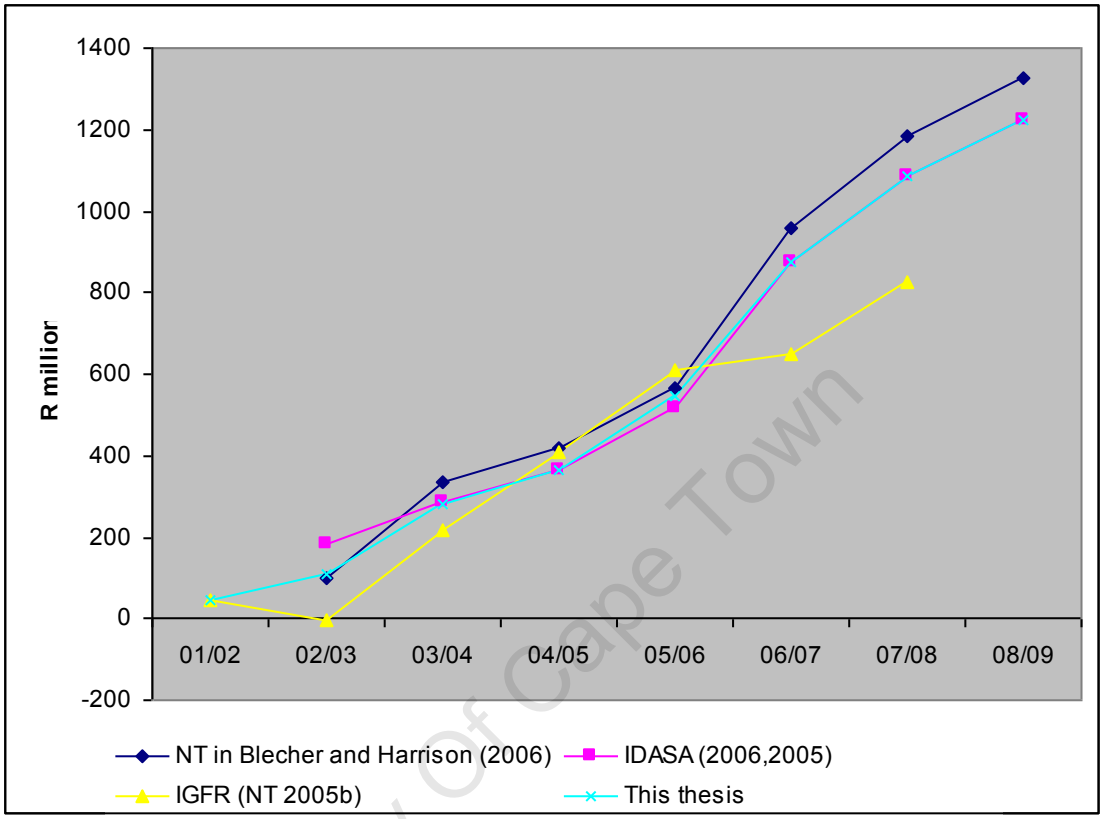
Source: Author's calculations from provincial HIV/AIDS budgets (NT 20006a-2006i), NT (20002b) for 2001/02 and NT (2004a and 2006l) for 2000/01; inflation from SSA (2008a) and NT (2008a)

APPENDIX 17 Proportional contribution of conditional and discretionary funding to HIV/AIDS expenditure in PDoHs

(%)	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Conditional grant	25	56	66	54	68	67	64	60	59
Discretionary expenditure	75	44	34	46	32	33	36	40	41

Source: Author's calculations from NT (2002b, 2004a, 2006a-2006i, 2006k, 2006l)

APPENDIX 18 Comparison of HIV/AIDS discretionary funding estimates, 2001/02-2008/09



R million	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
This thesis	43	107	280	366	547	874	1,088	1,225
Blecher and Harrison (2006)		98	335	419	568	958	1,185	1,327
IDASA (2005 & 2006)		182	285	366	515	874	1,088	1,225
Intergovernmental Fiscal Review (NT)	43	-5	216	411	609	650	825	

In nominal terms

Source: Blecher and Harrison (2006); IDASA's studies: Ndlovu and Daswa (2006a) for the period 2003/04-2008/09, and Hickey and Ndlovu (2005) for 2002/03; *Intergovernmental Fiscal Review 2005* (NT 2005b) for the sources used in Chapter 5 of this thesis.

APPENDIX 19 Comparison of targeted allocations for HIV/AIDS added to the equitable shares transfers, 2002/03-2007/08

Targeted allocations for HIV/AIDS added to the equitable shares transfers

R million	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
In 2002 Budget	400	600	900	954	1,011	1,062
In 2003 Budget	0	500	1,000	1,500	1,590	1,670

Source: NT (2002a) and Mark Blecher (National Treasury, personal correspondence April 2008). Budget 2003 figures for 2002/03- 2004/05 are also in NT (2002a). However, figures for 2005/06-2007/08 could not be found in any of the NT budget documents for 2002 or 2003 available on the National Treasury web page (http://www.treasury.gov.za/).

APPENDIX 20 Real increases in HIV/AIDS expenditure in the Western Cape and Free State DoHs, total, conditional and discretionary

Real increases of HIV/AIDS expenditure in Free State and Western Cape DoHs

	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Western Cape (R thousands)	25,133	43,934	102,638	132,219	150,954	147,719	147,587
Free State (R thousands)		39,416	82,541	105,223	152,703	152,568	155,928
Western Cape growth rate (%)		74.8	133.6	28.8	14.2	-2.1	-0.1
Free State growth rate (%)		65.4	109.4	27.5	45.1	-0.1	2.2
National growth rate (%)	206.1	74.5	76.4	40.6	39.2	4.4	2.7

Real increases of HIV/AIDS conditional grants in Western Cape and Free State DoHs

	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Western Cape (R thousands)	5,911	14,960	27,877	63,024	86,006	115,670	113,191	113,255
Free State (R thousands)	6,441	23,829	34,718	76,080	105,223	142,265	139,215	139,294
Western Cape growth rate (%)		153.1	86.3	126.1	36.5	34.5	-2.1	0.1
Free State growth rate (%)		270.0	45.7	119.1	38.3	35.2	-2.1	0.1
National growth rate (%)		263.7	43.4	121.0	39.2	32.4	-2.1	0.0

Real increases of HIV/AIDS discretionary funding in Western Cape and Free State DoHs

	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Western Cape (R thousands)	10,173	16,057	39,614	46,213	35,284	34,527	34,332
Free State (R thousands)		4,079	5,942	0	10,438	14,328	18,812
Western Cape growth rate (%)		57.8	146.7	16.7	-23.6	-2.1	-0.6
Free State growth rate (%)			37.5	-100.0		27.9	24.6
National growth rate (%)		208.3	18.1	30.0	61.7	15.3	6.2

Real terms in 2006/07 prices

Source: Author's calculations of growth rates and real terms from NT (2002b, 2004a, 2006b, 2006i, 2006l) and Ndlovu and Daswa (2006); inflation from SSA (2008a) and NT (2008a)

APPENDIX 21 Relative contribution of conditional grant over discretionary funding in HIV/AIDS provincial expenditure, Western Cape, Free State and national

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Western Cape (%)	63/37	61/39	65/35	77/23	77/23	77/23
Free State (%)	88/12	98/8	100/0	93/7	91/9	89/11
National (%)	54/46	68/32	67/33	64/36	60/40	59/41

Source: Author's calculations from NT (2002b 2003c, 2005c, 2006a -2006i, 2006k); Ndlovu and Daswa (2006)

APPENDIX 22 Spending of the HIV/AIDS conditional grants to DoE, DoH and DSD, 2000/01-2002/03

R millions	2000/01			2001/02			2002/03		
	Allocated	**Spent**	**Spent %**	**Allocated**	**Spent**	**Spent %**	**Allocated**	**Spent**	**Spent %**
DoE	26.93	6	22.3	63.5	41.956	66.1	144.605	125.041	86.5
DoH	16.819	10	59.5	54.398	45.095	82.9	210.209	172.879	82.2
DSD	5.62	2	35.6	12.5	10.156	81.3	47.5	44.019	92.7

Source: Hickey et al. (2004, p.175)

APPENDIX 23 Analysis of HIV/AIDS expenditure in PDoHs per per HIV-positive population, per AIDS sick population, and per patient on ART, 2006/07 [a, b]

Rands	Expenditure per HIV+ population[c]	Expenditure per AIDS sick population	Expenditure per patient on ART
Eastern Cape	356 (8)	3,706 (5)	11.115 (3)
Free State	394 (6)	3,302 (7)	10.620 (5)
Gauteng	366 (7)	3,297 (8)	6.737 (9)
KwaZulu-Natal	525 (3)	4,188 (4)	13.916 (2)
Limpopo	443 (4)	4,455 (3)	10.742 (4)
Mpumalanga	304 (9)	2,363 (9)	7.755 (7)
Northern Cape	1,141 (1)	13,018 (1)	24.274 (1)
North West	404 (5)	3,593 (6)	9.506 (6)
Western Cape	565 (2)	7,649 (2)	6.853 (8)

[a] In 2006/07 real prices
[b] Numbers in brackets indicate provincial ranking
[c] HIV positive population from December 2005 to December 2006
Source: Author's calculations from (NT 2006a-i; 2006l; 2008a); ASSA (2005a) for total, HIV-positive and AIDS sick population; uninsured population from SAA (2006); new AIDS cases from DoH (2006b)

APPENDIX 24 The new *HIV & AIDS and STI Strategic Plan for South Africa 2007-2011* (NSP)

The new NSP was endorsed on the 30th of April of 2007 as the main guiding document to lead the multisectoral response against HIV/AIDS for all sectors involved in the fight against the epidemic, not only the health sector. The NSP aims to expand access to appropriate treatment, care and support to 80% of all HIV-positive people and their families and to reduce new HIV infections by 2011 (DoH 2006a). Several objectives of the NSP corroborate the recommendations identified in this thesis:

- To improve care for HIV-positive people not yet on ART, including the promotion of a wellness package[77] and wider delivery of cotrimoxazole;
- To strengthen the PHC platform to be able to provide quality services so that the location of care can be shifted from hospitals towards PHC facilities;
- To delegate activities to less qualified cadres, to train PHC nurses (rather than doctors) to initiate ART, and to train lay counsellors with regard to their responsibilities around rapid HIV tests;
- To conduct research on human resource requirements for the implementation of the NSP;
- To establish and implement a functional M&E system, and to use the M&E data to identify the barriers to the implementation of the NSP;
- To enhance coordination and communication among government departments and with other stakeholders.
- To monitor funding for the NSP and its cost-effectiveness by focusing on several outcomes of treatment through surveillance;
- To seek partnerships, both with key donors (Global Fund, PEPFAR and others) as well as with the private health sector, in order to make this plan feasible.

Source: DoH (2007a,b)

[77] The wellness care program includes: regular CD4 counts; prophylaxis and treatment of opportunistic infections; cervical screening; advice on lifestyle, nutrition, contraceptive use and fertility, positive prevention, social support, and pain and symptom relief (DoH 2006a, p.100).

APPENDIX 25 Comparison of updated HIVA/AIDS expenditure with projections in Chapter 5, total, conditional, and discretionary, 2004/05-2008/09

This appendix compares the financial trends pictured in Chapter 5 (with data available up to May 2006) with trends based on budget figures updated in January 2009: audited financial statements up to 2006/07 (in Chapter 5 only up to 2004/05), pre-audited estimates for 2007/08 (rather than MTEF projections), and MTEF projections for 2008/09. Real terms are still using 2006/07 as the base year.

It is also important to note that higher nominal allocations have been made by National and Provincial Treasuries and DoHs in order to compensate for the high inflation rates over recent years, and in particular medical inflation (WCDoH 2008; FSDoH 2008e). Average inflation in 2008/09 was 12.1, compared to 7.6 in 2007/08 and 4.9 in 2006/07 (SAA 2008b).

Graphs 1-3 illustrate differences in growth projections in Chapter 5 with those updated, for total national, conditional, and discretionary HIV/AIDS funding in PDoHs respectively.

Figures 4-6 compare the updated increases with those of Chapter 5 in relation to the Western Cape HIV/AIDS total, conditional, and discretionary funding respectively.

Figures 7-9 compare the updated increases with those of Chapter 5 in relation to the Free State HIV/AIDS total, conditional, and discretionary funding respectively.

***Figure 1*: Total national HIV/AIDS funding in PDoHs, updated in January 2009**

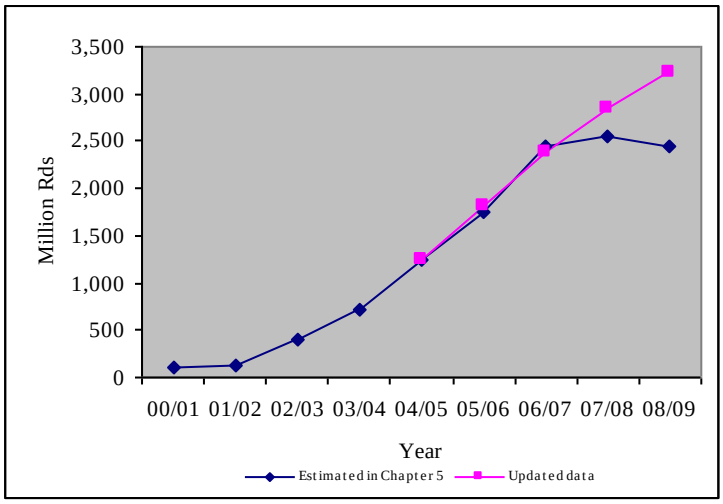


***Figure 2*: National HIV/AIDS conditional grant funding in PDoHs, updated in January 2009**

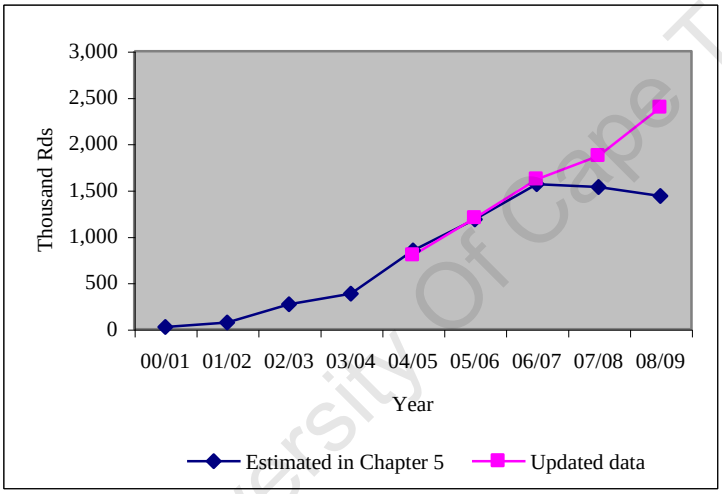


***Figure 3*: National HIV/AIDS discretionary funding in PDoHs, updated in January 2009**

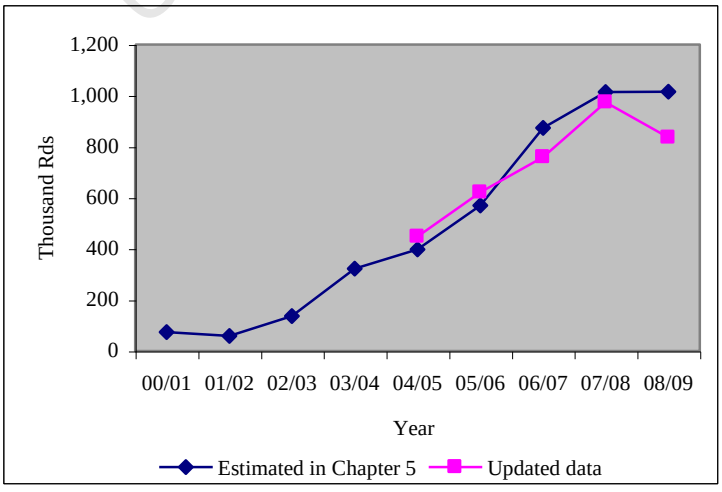


***Figure 4*: Western Cape total HIV/AIDS funding in the DoH, updated in January 2009**

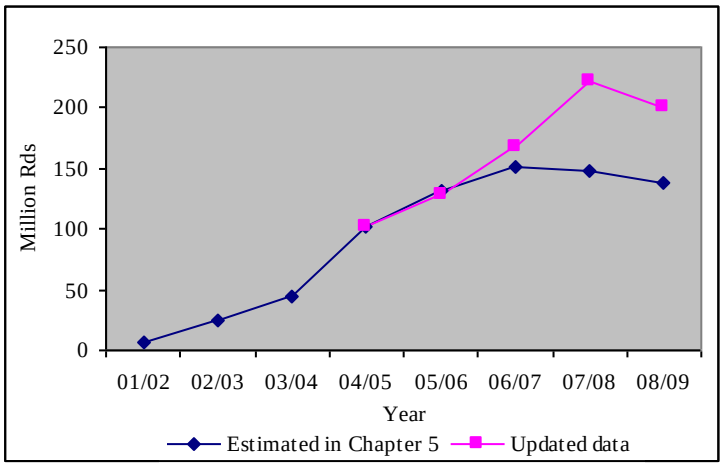


***Figure 5*: Western Cape HIV/AIDS conditional grant funding in the DoH, updated in January 2009**

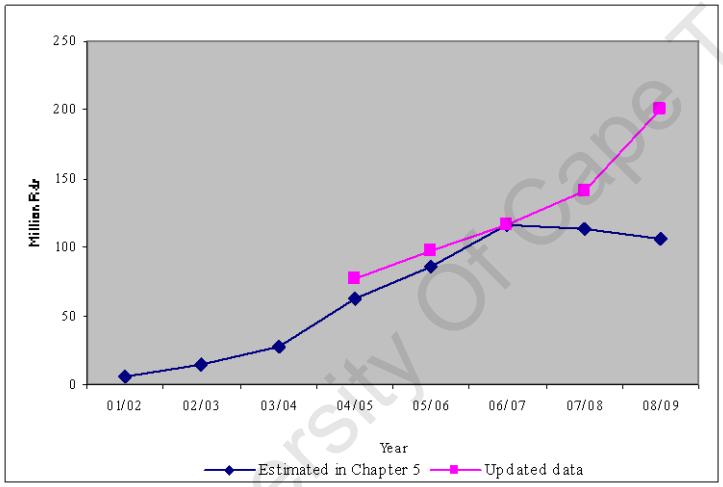


***Figure 6*: Western Cape HIV/AIDS discretionary funding in the DoH, updated in January 2009**

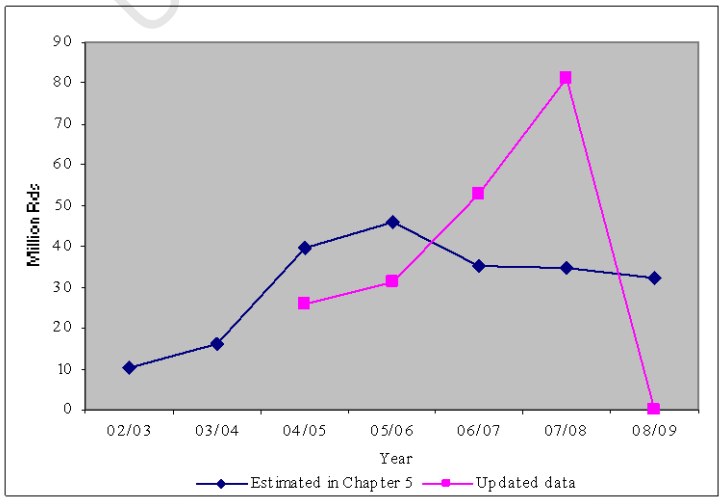


***Figure 7*: Free State total HIV/AIDS funding in the DoH, updated in January 2009**

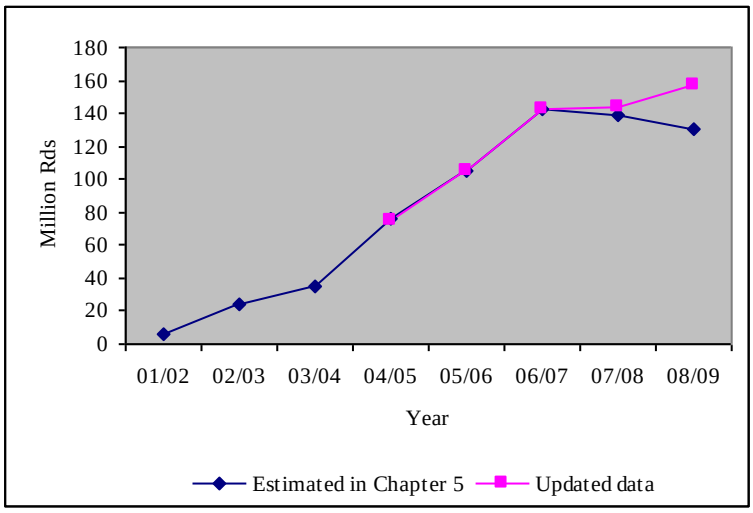


***Figure 8*: Free State HIV/AIDS conditional grant funding in the DoH, updated**

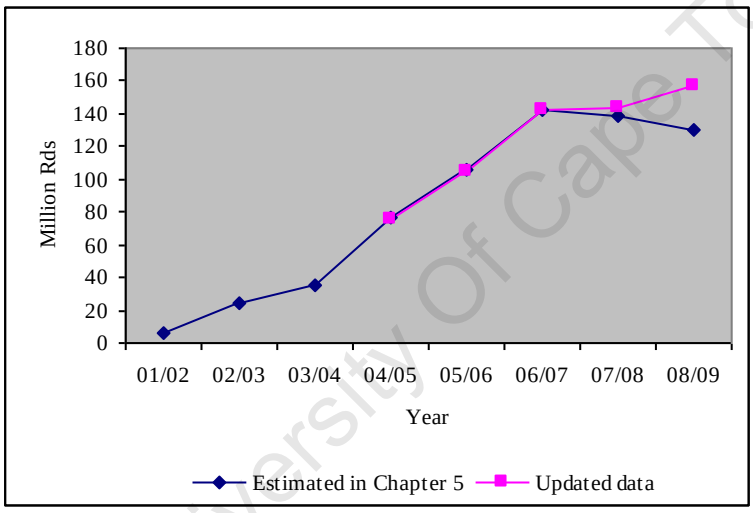
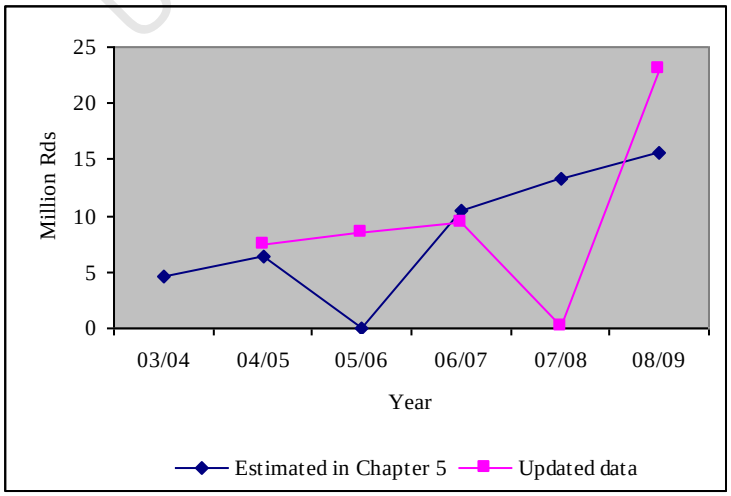


***Figure 9*: Free State HIV/AIDS discretionary funding in the DoH, updated in**



Source: Author based on NT (2002b, 2003b, 2004a, 2005c, 2006b,i,k,l, 2008a-l); WCDoH (2008); FSDoH (2007) and SSA (2008a,b)