EXTENDING THE REACH: CONTRACTING OUT HIV SERVICES TO THE PRIVATE HEALTH SECTOR IN GAUTENG, SOUTH AFRICA

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Submitted to: Shyami de Silva, Private Sector Technical Advisor
Bureau of Global Health/Office of HIV and AIDS
United States Agency for International Development

Abt Associates Inc.
4550 Montgomery Avenue, Suite 800 North
Bethesda, MD 20814
Tel: 301.347.5000 Fax: 301.913.9061
www.abtassociates.com

In collaboration with:
Banyan Global • Jhpiego • Marie Stopes International
Monitor Group • O'Hanlon Health Consulting

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DISCLAIMER
The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States government.

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
DAI	Direct AIDS Intervention
GP	General Practitioner
HAART	Highly Active Antiretroviral Therapy
HCT	HIV Counseling and Testing
HAD	Health and Development Africa
HIV	Human Immunodeficiency Virus
IPT	Isoniazid Preventative Therapy
NGO	Nongovernmental Organization
NHI	National Health Insurance
NHLS	National Health Laboratory Service
PEP	Post-exposure prophylaxis
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PFIP	Partnership Framework Implementation Plan in Support of South Africa's National HIV & AIDS and Tuberculosis Response (2012/13–2016/17)
PPP	Public-private Partnership
PMTCT	Prevention of Mother-to-Child Transmission
RTC	Right to Care
RTCHS	Right to Care Health Services
TB	Tuberculosis
USAID	United States Agency for International Development
USG	United States Government

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EXECUTIVE SUMMARY

Over the past decade, the South African government—in partnership with a number of international donors and local nongovernmental organizations (NGOs)—has made enormous strides in turning the tide of the national HIV epidemic. Yet with 18 percent of the adult population and an estimated 410,000 children living with the virus, South Africa continues to experience the world's greatest HIV and AIDS disease burden (UNAIDS, 2012). The United States President's Emergency Plan for AIDS Relief (PEPFAR) has invested in South Africa's AIDS response since 2004, supporting an unprecedented expansion in HIV prevention, care, and treatment services, including lifesaving antiretroviral therapy (ART). Given the challenge in meeting HIV treatment needs through government sources alone, PEPFAR directed significant support to NGOs and private health sector general practitioners (GPs). Many of these NGOs and private GPs became among the most robust sources of HIV and AIDS treatment during a period when the public sector was limited in its capacity.

In 2009, the government of newly elected president Jacob Zuma pledged a renewed focus on controlling the epidemic by committing greater financial and operational responsibility in delivering South Africa's national response to HIV and AIDS. This time marked a renewed partnership between PEPFAR and the South African government. Because the partnership arose during the "emergency response" era of the epidemic, the humanitarian imperative to initiate treatment outweighed sustainability considerations. PEPFAR focused on financing the direct delivery of services and granting access to ART. In anticipation of the end of the emergency response, PEPFAR will need to shift their support toward transitioning greater responsibility to the South African government.

The PEPFAR Partnership Framework Implementation Plan in Support of South Africa's National HIV & TB response (2012/13–2016/17) (PFIP) between the United States and South African governments intensifies cooperation efforts focused on the transition of technical and financial responsibility for hundreds of millions of dollars of PEPFAR-supported activities in South Africa (PEPFAR, 2010). As the South African government plans to launch an ambitious national health insurance program, NGOs and private GP networks engaged under early PEPFAR support would continue to play to an important service delivery role in partnership with the South African government.

The financial transition to increase South Africa's ownership of the HIV response began with a decrease in PEPFAR assistance from $560 million in 2011 to a proposed $250 million by 2016. As PEPFAR decreased its support to direct service delivery efforts, the South African government moved forward with plans to phase-out PEPFAR-supported GP networks by 2012. Patients attending GP networks would be transferred to public facilities or would need to find other means to finance their health care in the private sector. Patients that were treated by NGOs operating under PEPFAR-funded treatment programs would need to be transitioned to other non-PEPFAR models of support (i.e., directed either to public health facilities or NGO facilities with other sources of funding) (PEPFAR, 2010).

The transition increased the need for public services, but contracting out remained a possible interim arrangement to facilitate the PEPFAR transition. Furthermore, as South Africa considers using a greater proportion of their budget to cover HIV and AIDS treatment, contracting out may still serve as a vehicle to expand services in places with limited public health care infrastructure. Contracting out could be critical to strengthening South Africa's HIV response by facilitating

coordination in the transition of patients previously supported by PEPFAR as well as expanding the reach of public health services through the private sector.

This study focuses on the experience of Right to Care Health Services (RTCHS), a South African private company that manages HIV and AIDS services on behalf of several clients, including PEPFAR, through the United States Agency for International Development (USAID), the South African government, employers, and medical aid schemes. The experience of RTCHS demonstrates how a private health care institution can partner with donor and government stakeholders to deliver HIV and AIDS care at a large scale. However, it also illustrates that financing the implementation of service contracts raises a variety of challenges. When either donors or country governments consider contracting out strategies for HIV and AIDS care, they need to consider the full range of associated advantages and disadvantages.

STUDY DESIGN

Few efforts have explored national or regional government efforts that rely on private sector contracting mechanisms to deliver HIV and AIDS services. To fill this empirical gap, the USAID-funded Strengthening Health Outcomes through the Private Sector (SHOPS) project carried out an assessment of three HIV and AIDS contracting models implemented by RTCHS in South Africa. The Direct AIDS Intervention (DAI) model, Thusong model, and Down-Referral model all involved contracting out to the private sector to deliver clinical and laboratory services for people with HIV and AIDS. The study sought to answer the following research questions:

1. What are the motivations of the South African government, private employers, PEPFAR, RTCHS, and contracted GPs in initiating and participating in the three models of HIV care?
2. How do the three models function in terms of financing and operations?
3. What have been stakeholders' major challenges and opportunities in implementing the three models? What are the perceived barriers to expanding and/or replicating the models?
4. What are the major lessons associated with contracting out models as countries move to country-owned AIDS responses?

To answer these questions, the study collected qualitative data through 24 semi-structured key informant interviews with representatives of the South African government, RTCHS staff, RTCHS-affiliated GPs, and laboratory service providers. In addition, researchers conducted group and individual interviews with 23 patients. The qualitative data shed light on the experiences of individuals and groups implementing the different models. The source for quantitative data was electronic medical records drawn from RTCHS's Therapy Edge database.[1] The quantitative data was collected to illustrate the size and demographics of the people participating in each model. At the same time, literature reviews incorporated information from published peer-reviewed articles as well as from reports authored by the South African government and RTCHS. The study analyzed the collected data to compare how the design of contractual relationships aligned with contract implementation. Adapted from World Bank research, the SHOPS project's contracting out lifecycle framework provided the basis for the analysis. The framework highlights the unique set of considerations for assessing, designing, implementing, and eventually closing a contract.

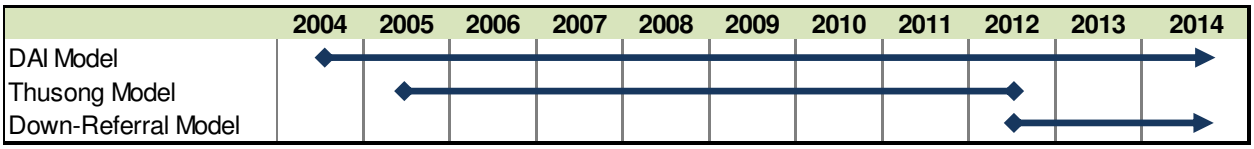
[1]To protect patients' privacy, the report did not consider any information that would reveal patients' identities.

RTCHS OPERATIONS AND MANAGEMENT

RTCHS is a private company that is wholly owned by Right to Care (RTC), an NGO based in Johannesburg, South Africa. The organization provides workplace HIV outreach services to a corporate client base that includes more than 80,000 employees over a wide geographic area. As illustrated in Figure 1, RTCHS has delivered HIV and AIDS care and treatment through three models described in this report:

1. **The Direct AIDS Intervention (DAI) model** is financed through medical aid and employer-sponsored insurance and has been operating since 2004.
2. **The Thusong model** was financed by PEPFAR and targeted HIV-positive people who were unemployed or who were low-income workers without coverage through medical aid or insurance schemes. The Thusong model was phased out according to the PEPFAR PFIP in 2012.
3. **A down referral model** is financed by PEPFAR and the South African government at the time that Thusong model was phased out. In response to overcrowding at public hospitals for HIV and AIDS care, this model tests the cost-effectiveness of transferring stable HIV patients to RTCHS-managed GPs. The South African government planned to finance the cost of running the down referral model using revenues generated from the proposed national health insurance program.

FIGURE 1. TIMELINE OF VARIOUS RTCHS MODELS FOR DELIVERING HIV AND AIDS CARE (2004–2014)



By relying on three separate models, RTCHS managed relationships with private GPs delivering basic HIV and AIDS care. Each model presents a different type of partnership. The DAI model is an example of a contracting out arrangement between private sector agents, insurance companies or employers (independent of PEPFAR or international donor support). The Thusong model is an example of a PEPFAR-supported GP network before the planned 2012 phase out. The Down Referral model is an example of a coordinated public-private partnership effort aimed at referring the care of stable public sector HIV patients to private GP networks via partnerships developed directly between NGOs and the South African government.

THE DAI MODEL

The DAI model is financed by employer-sponsored private insurance (e.g., Alexander Forbes Group and Hyatt Regency) and medical aid schemes (e.g., Discovery Health and MMed Medical Aid). The aim of the model was to engage workplaces and employers who see the value of HIV care and insurance coverage as part of their core business. Employers contracted with RTCHS to provide HIV counseling and testing (HCT) and HIV management services covered by medical aid schemes or employer-sponsored private insurance. Interviews revealed employers contracted with RTCHS to improve employee productivity, promote occupational safety, reduce absenteeism and staff turnover, and minimize the administrative effort involved in organizing employee health care services directly with GPs. Overall, DAI patients were middle-class working people, of a more or less equal gender distribution. According to RTCHS case managers, many DAI patients were employed and had fairly high incomes and education levels and demonstrated a good understanding of their HIV and AIDS care.

THE THUSONG MODEL

RTCHS administered the PEPFAR-funded Thusong model from 2005 to 2012. Following the DAI model's early success in extending HIV testing and treatment to workplaces and individuals covered by medical aid schemes, RTCHS launched the Thusong model in partnership with PEPFAR. The goal of the Thusong model was to provide HIV and AIDS care to impoverished patients who were unable to pay for treatment or access it through employers or medical aid schemes. The Thusong contract was structured so as not to generate profits. Its pharmaceutical and laboratory operations largely mirrored those of the DAI model except that the Thusong model restricted benefits to a drug formulary. As a USAID and PEPFAR-supported project, the Thusong model had access to donor-subsidized pharmaceutical and laboratory services. The DAI program did not have access to donor subsidy, but had greater flexibility with its drug formulary. The Thusong program targeted patients earning less than $341 per month and patients with a CD4 count less than or equal to 250. Patients could not be a member of an employer-sponsored HIV and AIDS treatment program or medical aid scheme. The phase-out of funding at the end of 2012 was part of the PFIP's planned transition of PEPFAR-funded GP networks. After the Thusong model phased out according to the timeline set in the PFIP, patients who could not afford to continue care through private GPs were transferred back to the public sector.

THE DOWN REFERRAL MODEL

Even before the phase-out of the Thusong model, RTCHS was in discussions with the Helen Joseph Clinic (a large public ART center) and the provincial department of health to develop a public-private model of care. This was in response to an ever increasing number of stable ART patients at public sector facilities, who could presumably be cared for with basic prescription and laboratory follow-up by private GPs. The increased number of patients attending public sector facilities for HIV and AIDS raised questions about the cost-effectiveness of treating stable patients at public hospitals, which were already operating beyond capacity. In 2012, RTCHS launched the Down Referral model as a pilot project in partnership with the public sector Thembalethu Clinic (based at Helen Joseph Hospital in Johannesburg) and the Gauteng Provincial Department of Health. The goal of the pilot was to transfer 500 stable patients from Thembalethu Clinic to ten GPs within the RTCHS network to reduce the burden on the public clinic. The public sector committed to financing all basic medications, ARVs, and laboratory expenses through Helen Joseph Hospital's core budget and the National Health Laboratory Service (NHLS). RTCHS' functions under the pilot were to provide case management assistance (through their case management call center) and the delivery of publicly procured medications to patients through the RTCHS Rightmed pharmacy system. Although Thusong patients were simultaneously being referred back into public care at Helen Joseph Hospital as the program was phased out, the Provincial Department of Health and Helen Joseph Hospital elected to identify 500 separate patients to participate in the pilot. Eligible patients for Down-Referral were those with an undetectable viral load and not taking second- or third-line ARVs. Managers wanted to ensure that each patient's condition would be relatively easy to maintain and that the transfer process would be straightforward.

THE CONTRACTING OUT LIFECYCLE

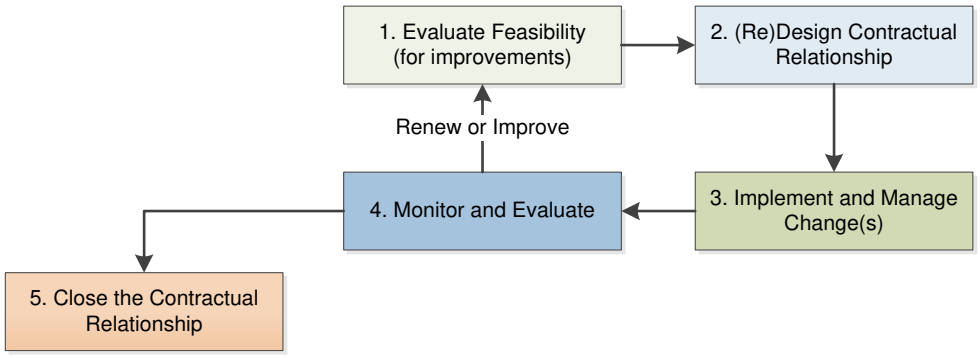
RTCHS developed various contracts that were used to administer each model. The relationship between RTCHS and private GPs was particularly important because the GPs had significant interactions with patients in each model. At the outset, the service delivery arrangements between RTCHS and GPs were mostly informal. However, interviews with GPs and RTCHS administrators revealed several challenges to that approach:

1. Difficulty verifying the eligibility of patients for program participation
2. Difficulty invoicing according to required documentation
3. Miscommunication between RTCHS and the GPs regarding benefit levels for different types of patients
4. Difficulty coordinating business processes at GPs' offices with RTCHS's management information systems
5. Payment-linked protocols restricting the GPs' ability to respond to patients on a case-by-case basis

To respond to these challenges, RTCHS began to formalize and renegotiate contracts with GPs in 2011 to ensure that the terms of service delivery were clearly defined.

This study details the various challenges and opportunities associated with implementing each model and assesses each according to the contracting out lifecycle framework depicted in Figure 2. The framework illustrates five key stages of a contractual relationship. Adapted from the World Bank toolkit on performance-based contracting, SHOPS used the framework to simplify and organize the complex experience of a contractual relationship. Each stage of the framework involves a unique set of considerations for assessing, designing, implementing, improving, and eventually closing a contract. Examining the three contracting models through this framework can help reveal opportunities for improving future contracts with the private sector for the delivery of HIV and AIDS care and treatment worldwide.

FIGURE 2. CONTRACTING OUT LIFECYCLE FRAMEWORK



Stage One: Evaluate Feasibility. According to the first stage of the contracting out lifecycle, stakeholders should evaluate the feasibility of entering into a contractual arrangement. In weighing the feasibility of the DAI model, RTCHS had to ensure that it could attract medical aid schemes motivated to offer competitive benefit packages to their clients and employers interested in preventing HIV-related losses in workplace productivity. In weighing the feasibility of the Thusong model, RTCHS and PEPFAR limited services to certain formularies to control cost while maximizing the number of beneficiaries. As these cases show, any evaluation of the feasibility of a contract (or changes to a contract) needs to consider stakeholder goals as well as financial and technical capacity.

Stage Two: (Re)Design Contractual Relationship. In designing or redesigning a health service delivery contract, the purchaser and provider should define the payment of services to be delivered as well as any expectations regarding the quality of services. For example, the DAI and Thusong models' services were structured with a combination of payments per member each month for case management services and fee-for-service payments for a separately

specified list of services. This approach differs from the Down-Referral model's approach, which pays RTCHS for monthly services per member. Each payment structure involves different administrative protocol and creates different incentives for GPs.

Stage Three: Implement and Manage Change. Social stigma, diverse patient demographics, and the complex nature of HIV and AIDS care influence many of the challenges associated with the implementation of service delivery contracts. Implementation challenges refer to issues that deter stakeholders from abiding by contractual terms. For the three models, most implementation challenges stemmed from a lack of clearly documented responsibilities and processes.

Stage Four: Monitor and Evaluate. For service delivery agreements, contracts should have clearly defined goals and explain how monitoring and evaluation activities measure progress in meeting those goals. The DAI model's goals for entering into a contract with RTCHS varied in nature. Some goals defined in DAI contracts were transactional in nature, and other DAI contracts included goals aimed that directly influenced the health of the target population. Contracts involving donor agencies and public institutions—such as the Thusong and Down-referral models—are likely to have explicit public health goals, which may require reporting on health indicators. Monitoring and evaluation activities have cost implications and thus should have a budget dedicated to collecting and analyzing information. Despite requiring a large upfront investment and training, RTCHS' Therapy Edge system proved useful as a patient monitoring tool for all three of the models.

Stage Five: Close the Contractual Relationship. Termination or closure of a contract is the last stage of the contracting out lifecycle. Termination refers to the end of a contract before its full performance by the affected parties. Closure of a contract refers to the natural end of the contractual relationship based on the designated period or attainment of objectives defined in the contract. A contract should explicitly state protocols for termination and closure to prevent any miscommunication and to assist in planning for phase-out. The closure of the Thusong model, which was characterized by confusion, exemplifies the need to plan for the phase-out of donor assistance to ensure the well-being and smooth transfer of patients when service delivery comes to an end.

CONCLUSION

Although contracting out services to private GPs and other health providers holds significant promise to expand the availability of essential health services, contracting out basic HIV and AIDS care may prove challenging. The DAI model was able to sustain its response to a wide range of patient needs and provide a broad spectrum of high-quality HIV and AIDS care, but at a high cost. The Thusong model demonstrated that local NGOs and international aid agencies can effectively subsidize the provision of high-quality private sector care for lower-income populations. However, the program proved unsustainable without greater financial commitment from the South African government in the face of PEPFAR's financial transition. The Down-Referral model was rooted in the concept of sustainability through public financing and national health insurance but raised questions about the limits of HIV care and other health services that can be efficiently and systematically contracted to the private sector. In order to protect PEPFAR's investment, it is essential that adherence and retention are closely supported and monitored. It will be critical to understand how retention and adherence are impacted in each of the three models.

All models in this report effectively supported the care and treatment of numerous patients living with HIV and AIDS in South Africa. Although none of the models functioned perfectly, each model offers lessons that may help policymakers and HIV program managers in other settings

expand access to HIV and AIDS services by effectively contracting with the private health sector. Carefully considered subsidy amounts for HIV and AIDS service delivery can alleviate pressures on recipient governments as they budget for resources required to finance HIV and AIDS treatment, and ensure that PEPFAR's investment in Achieving an AIDS Free Generation is protected.

As other countries interested in contracting out look to the RTCHS and South Africa example for guidance, policymakers and representatives from the private sector should carefully and comprehensively consider the design of their contracts. Contract goals should align with payment structures. Payment structures should be based on efficient business processes and systems, and incentivize quality care. Budgets and timelines should be coordinated and well-communicated. Following these simple lessons should assist others in executing strong contracts that capitalize on the experience in South Africa. Donor agencies may assist by supporting studies such as the present one and pilot projects with detailed monitoring and patient tracking, thereby generating evidence on best practices and optimal adherence and retention strategies. Such information is useful for defining policy proposals and catalyzing the political momentum needed to execute strategies that cost effectively increase access to essential health services.

1. INTRODUCTION

Over the past five years, South Africa has witnessed rapid improvements in the provision of lifesaving antiretroviral therapy (ART) and has improved its approaches to preventing vertical mother-to-child transmission (PMTCT) of HIV. In 2011, an estimated 1.7 million people received ART in South Africa, with some provinces (such as the Western Cape) exceeding universal targets. National PMTCT coverage has rapidly expanded to 87.1 percent, and South Africa has assigned an increasingly high priority to integrated management of HIV and tuberculosis (TB) co-infection. Since peaking in 2008, AIDS-related mortality has begun to decline (Republic of South Africa, 2013).

However, with an overall adult (age 15 to 49) HIV prevalence rate of 17.3 percent in 2011 and approximately 5.6 million people living with HIV, including 460,000 children under age 14, South Africa continues to face the world's greatest HIV and AIDS disease burden (UNAIDS, 2012). Between 1999 and 2011, the approximate HIV-related mortality rate averaged over 300,000 deaths per year, and it is estimated that the epidemic has orphaned in excess of 2.1 million children under age 17 (Republic of South Africa, 2013).

South Africa is also home to a profoundly important transition in United States foreign assistance. The United States has shifted technical and financial responsibility of hundreds of millions of dollars of PEPFAR supported programs to the South African government. While support to the private sector in South Africa currently represents a small proportion (less than 3 percent) of PEPFAR's overall contribution to the National Strategic Plan on HIV, STIs, and TB (2012–2016), the private sector has historically played a significant role in South Africa's fight against HIV and AIDS (PEPFAR, 2010). Tracing the role of the private sector in HIV and AIDS service delivery sets the context for the changing role of privately managed general practitioners (GPs) and private health provider networks, which are the focus of this study.

1.1 PEPFAR'S EARLY SUPPORT FOR THE PRIVATE SECTOR

As noted in the National Strategic Plan on HIV, STIs [sexually transmitted infections] and TB (2012–2016), South African policymakers and health planners are acknowledging that sustaining the scale-up of HIV services as seen over the past few years will require an increasing role for the private health sector (both not-for-profit and commercial providers). Before 2003, during a period of AIDS denialism, South Africa's public health system did not make ARVs available. As a result, patients could obtain the lifesaving drugs through private sector sources but many patients dependent on public sector care died while awaiting treatment (World Health Organization, 2011).

When PEPFAR investments in South Africa began in 2004, funds directed to the private sector were channeled through nongovernmental organizations (NGOs) and private GP networks. PEPFAR supported NGOs and faith-based organizations (FBOs) that were well positioned to rapidly roll out anti-retroviral therapy (ART) services. Using their infrastructure, personnel, and other resources, fully functioning clinics were established to provide ART services in rural areas where limited services were available and to complement public ART services that were at the time insufficient to respond to the overwhelming need. PEPFAR supported GP networks to

initiate and maintain patients on ART to reduce the burden on the public sector (PEPFAR, 2010).

Around the same time, the private sector —motivated to control the high costs of HIV-related losses in staff productivity and morale—mobilized to provide testing and treatment services (Mahajan, Colvin, Rudatsikira, and Ettl, 2007; UNAIDS, 2005). Private GPs sought out HIV counseling and testing (HCT) resources and ARV drugs for their clientele (World Health Organization, 2011), and private companies such as Anglo American PLC Ltd., BHP Billiton Ltd., and Eskom began either referring their employees for testing or offering on-site testing, care, and treatment. Thus, in the early response to the epidemic, private health care providers were among the first practitioners to develop in-country capacity in HIV management.

In 2009, the government of newly elected president Jacob Zuma pledged a renewed focus on controlling the HIV and AIDS epidemic. To that end, the South African government launched an aggressive national HIV counseling and testing (HCT) campaign; increased the budget allocation for HIV programs; adopted World Health Organization (WHO) treatment guidelines; required the scale of up male medical circumcision; and initiated a plan to reengineer the health system to primary care. Crucial to this policy shift, the South African government also committed to carrying most of the cost. Thus, starting in 2009 the United States and South Africa intensified cooperation to focus on transitioning PEPFAR-supported activities to the South African government. Under this new arrangement, NGOs and private GP networks would continue to play to an important service delivery role, but in a new context where they partner directly and increasingly with the South African government instead of with the United States Government.

1.2 THE NEED TO CONTRACT OUT FOR SMOOTH TRANSITIONS AND EXPANDING CARE

The financial and technical transition began with a decrease in PEPFAR assistance from $560 million in 2011 to a proposed $250 million in fiscal year 2016. The transition means that the USG is now supporting the training and technical assistance needs of South Africa's HIV response rather than directly subsidizing service delivery (Brundage, 2011). As PEPFAR decreased their support to direct service delivery, the South African government planned to phase-out GP networks by 2012. Patients would be transferred to public facilities or would need to find other means to finance their health care in the private sector. Patients that were treated in nongovernmental organization (NGO) sites under PEPFAR funding would need to be transitioned to other non-PEPFAR models of support (i.e. directed either to public health facilities or NGO facilities with other sources of funding) (PEPFAR, 2010).

The PFIP acknowledged the risks of these funding declines, particularly as related to interruptions and disruptions in patient treatment. PEPFAR therefore stressed the importance of (1) interim arrangements that would ensure full-service coverage during the transition and (2) long-term arrangements that would become permanent structures for HIV and AIDS service delivery in South Africa (Brundage, 2011).

Regarding the interim arrangements, the PFIP declared that the transition of patients must focus on planning, coordination, and ensuring that patients do not face an interruption of care. The South African government thus considered interim health care purchasing agreements to contract out the delivery of HIV and AIDS care through these private sector health care organizations as the public sector took on increasing responsibility over these patients.

Along with interim arrangements to facilitate the PEPFAR transition, contracting out also gained momentum as a vehicle for expanding services in places with limited public health care

infrastructure. Around 2009, South Africa's primary health care system was reengineered to encourage purchasers (such as the South African government and donor agencies) to contract with private health care providers. Purchasers, such as District Health Management Teams, are able to purchase selected services from private providers in areas lacking public sector HIV and AIDS expertise and in areas experiencing gaps in coverage (Rispel et al., 2010). SHOPS project has found, however, that contracting is relatively limited.

> While major grants have been secured for the next three-to-five year cycle, reliance on diminishing international donor funds in not sustainable. Changes in the public health landscape are underway, including the emergence of national health insurance, primary care revitalization, task-shifting from doctors to nurses, and semi-private practice models, each of which present opportunities.
>
> Right to Care Annual Report 2013

In 2014, the SHOPS project conducted a private sector assessment exploring revenue diversification prospects for PEPFAR-funded partners in South Africa (including RTCHS). The assessment explored numerous revenue diversification opportunities, including contracting-out opportunities with the Government of South Africa. Interviews conducted with National Department of Health and National Treasury representatives suggest that while there is increasing willingness to contract with the private health sector for the delivery of improved health outcomes, the onus is on PEPFAR partners to convince relevant provincial Departments of Health of their capacity to deliver higher quality services at a lower cost. In addition, Departments of Health have numerous options for contracting-out numerous health services providers in South Africa. Over 10,000 registered health-focused non-profit organizations and numerous private for-profit health players could serve as contenders for contracting-out dollars. Understanding Government of South Africa tendering processes, including Broad-Based Black Economic Empowerment scoring and profiles, is an important component for entering into contracting relationships in the future.

In addition, a green paper on national health insurance (NHI) issued in 2011 committed the South African government to ensuring coverage and access to a defined, comprehensive package of health care services delivered through "appropriately accredited and contracted public and private providers" (Republic of South Africa Department of Health, 2011). Given the historic inequalities in access to HIV care and treatment, the South African government's NHI design discussions framed contracting as a way to provide universal access to HIV care "based on need rather than ability to pay" (World Health Organization, 2010). Contracting out is thus critical to strengthening South Africa's HIV response by facilitating coordination in the transition of patients previously supported by PEPFAR as well as expanding the reach of publically financed health services through the private health sector.

1.3 REPORT FOCUS AND STRUCTURE

While this study focuses on contracting out of basic HIV services in light of the PEPFAR transition in South Africa, the lessons highlighted are also applicable to contracting activities for HIV and other essential health services in similar high HIV-prevalence settings. This study focuses on initiatives launched by Right to Care Health Services (RTCHS), a wholly owned subsidiary of Right to Care (RTC). RTCHS is a private company that manages HIV and AIDS services through GP networks on behalf of its clients, including PEPFAR, through the United States Agency for International Development (USAID), the South African government,

employers, and medical aid schemes. The study concentrates on RTCHS's experience in delivering HIV and AIDS services in Gauteng Province, South Africa. RTCHS implemented three models of contracting out for the provision of HIV and AIDS services, each of which reflects how the organization responded to PEPFAR's shift of financing responsibility to domestic funding sources between 2004 and present.

Section 2 of the report presents the objectives and methodology that guided the study. Section 3 describes the development of institutional arrangements, business processes, and reporting requirements that were common across all three RTCHS models and which may inform those considering similar contracting arrangements. Section 4 provides an analysis of the Direct Access Initiative (DAI) model that emerged from private sector employers and medical aid schemes that contracted with RTCHS to deliver HIV and AIDS care to their employees and members. The Thusong model, which is the focus of section 5, adopted the business processes and institutional arrangements developed under the DAI model but relied on and were limited to PEPFAR subsidies for key pharmaceutical and laboratory inputs. As described in section 6, the Down-Referral model was launched at the time when the Thusong model was phasing out and patients transitioned to the public sector. At this time, overcrowded public facilities struggled to care for patients, but recognized that it might be possible to refer stable patients seeking routine care. Thus, the goal of the Down-Referral pilot was to transfer 500 stable patients from Thembalethu Clinic to ten GPs within the RTCHS network in order to test if the strategy may reduce the burden on public clinics.

All of the models in this report supported the care and treatment of numerous patients living with HIV and AIDS in South Africa, and although none of the models functioned perfectly, each offers lessons that may help policymakers and HIV program managers in other settings expand access to HIV and AIDS services by effectively contracting with the private health sector. The study demonstrates that private institutions such as RTCHS have strong technical capacity to deliver HIV and AIDS services at a large scale, but at a significant cost. During the transition, PEPFAR and the South African government had to weigh the scale and quality of HIV and AIDS care that they could afford to deliver against the benefits of relieving overcrowded public institutions. The story of RTCHS at the time of the PEPFAR transition and the phase-out of GP networks provides additional evidence for comprehensive country ownership transition plans, thorough coordination, and careful consideration of the continuum of care for PEPFAR-supported patients. Throughout this story, contracts played a key role for administering each model.

Contracts are critical to coordinate the transition of patients previously supported by PEPFAR. Assessing how contracts were designed offers lessons for how the South African government may contract the private health sector through the new national health insurance scheme or other purchasing vehicle. Focusing on these lessons in section 7, the authors discuss the key challenges and opportunities associated with contracting by basing their analysis on the contracting out lifecycle framework. Grounded on tools developed by international agencies for health purchasing and contracting, the framework illustrates five key stages of a contractual relationship. Each stage of contracting involves a unique set of considerations for assessing, designing, implementing, improving, and eventually closing a contract. The framework can be used as a tool for readers interested in exploring contracting initiatives. Furthermore, the analysis should be used by audiences looking to design clear contracts that consider the unique needs of HIV service delivery organizations.

2. STUDY OBJECTIVES AND METHODOLOGY

2.1 STUDY OBJECTIVES

Few efforts have explored national or regional government efforts that rely on private sector contracting mechanisms to deliver HIV and AIDS services. To fill this empirical gap and provide insights into policy initiatives that rely on contracting out, the USAID-funded Strengthening Health Outcomes through the Private Sector (SHOPS) project carried out an implementation and process assessment of three HIV and AIDS contracting models implemented by RTCHS in South Africa. The DAI model, Thusong model, and Down-Referral model all involved contracting out to the private sector to deliver clinical and laboratory services for people with HIV and AIDS. The study sought to answer the following overarching research questions:

1. What are the motivations of the South African government, private employers, PEPFAR, RTCHS, and contracted GPs in initiating and participating in the three models of HIV care?
2. How do the three models function in terms of financing and operations?
3. What have been stakeholders' major challenges and opportunities in implementing the three models? What are the perceived barriers to expanding and/or replicating the models?
4. What are the major lessons associated with contracting out models as countries move to country-owned AIDS responses?

The models provide a useful comparison because, firstly, the DAI model is an example of a more common contracting out arrangement between private sector agents (e.g., insurance providers and employers) independent of PEPFAR support. Secondly, the Thusong model is an example of a PEPFAR-supported GP network before the planned 2012 phase out. Lastly, the Down-Referral model is an example of a coordinated effort among public and private sector actors to transition stable patients out of an overcrowded public system and into private sector case management.

2.2 STUDY DESIGN

The study collected qualitative and quantitative data to provide a comprehensive picture of HIV and AIDS contracting out mechanisms in South Africa. The source of qualitative data was 24 semi-structured key informant interviews with representatives of the South African government, RTCHS staff, RTCHS-affiliated GPs, and laboratory service providers. In addition, the study conducted group and individual interviews with 23 patients. The qualitative data shed light on the experiences of key individuals and groups implementing the different models. The quantitative data was collected to illustrate scale of the size and demographics of the people participating in each model. The source for quantitative data was electronic medical records drawn from RTCHS's Therapy Edge database. Primary documents for review included the following:

- RTC's annual reports from 2006 to 2013
- A review of contracts between RTCHS and DAI clients, laboratory service providers, and

GPs
- The memorandum of understanding between RTC and Helen Joseph Hospital, which documented the design of the Down-Referral model
- Price lists used to administer the three models

Researchers performed literature reviews of published peer-reviewed articles and of reports authored by the South African government and RTC.

To focus on lessons learned from the RTCHS' contracting experience, the study analyzed the models using a framework proposed by the SHOPS project called the contracting out lifecycle framework. The framework was adapted from the World Bank Tool-Kit on Performance-Based Contracting, which itself was assembled from various case studies, peer-reviewed publications on public-private partnerships, and guides for contracting health services (Loevinsohn, 2008). SHOPS adapted the framework to simplify and organized the process of contracting. The framework is not predictive. As the World Bank notes, the act of contracting is more of an art than a science and the issues are more a matter of experience rather than systematic evidence (Loevinsohn, 2008). In this same vein, SHOPS assembled the contracting out lifecycle framework to structure the many experiences of the individuals participating in RTCHS delivery of health services through the various models studied in this report. Doing so, highlights the key considerations for contracting that may assist readers interested in using contract to develop interim arrangements in light of PEPFAR transition or readers interested in contracting the private sector health care providers through public sector resources.[2]

2.3 TIMELINE AND LOCATION OF DATA COLLECTION

The Abt Associates Institutional Review Board (United States, October 2012), the research ethics committee of the Human Sciences Research Council (South Africa, August 2012), and the Gauteng Provincial Department of Health (South Africa, October 2012) all granted ethics approvals for the study. Training of the local research team and refinement of interview guides took place in October 2012 in Johannesburg. The local research team conducted data collection from October 2012 to September 2013 in Pretoria, Johannesburg, and surrounding areas in Gauteng Province. Data analysis was conducted from September to December 2013.

2.4 DATA LIMITATIONS

With regard to limitations, the study was unable to interview the full complement of stakeholders in some stakeholder groups, as discussed in the annex. Furthermore, the researchers did not have access to every type of contract signed by RTCHS and other stakeholders and therefore assumed that the sample of collected contracts represented typical arrangements. In addition, the qualitative data captured in the report encompass the breadth of stakeholder knowledge about and attitudes toward the implementation of various contractual arrangements but do not convey the degree to which such attitudes were prevalent in the broad South African health provider and client population.

The natural limitation of qualitative data applies in this study. Qualitative data was collected from a limited number of cases and individuals so findings cannot be generalized to a larger population. Findings can however be considered to reflect the experience of those involved in RTCHS service delivery and management and may be relatable to other settings. Furthermore, the quantitative data collected from RTCHS' Therapy Edge database was limited to presenting demographic characteristics and quantities of patients under each type of ART regimen.

[2] See the annex for a detailed explanation of the study's research methods.

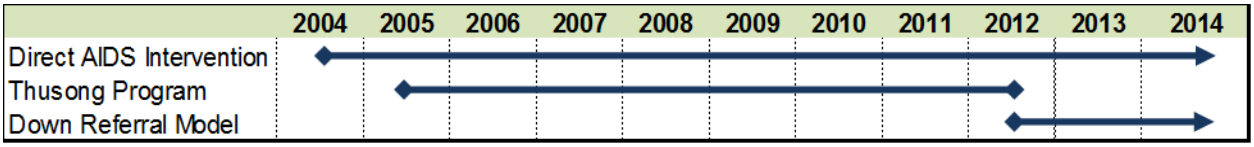
3. RTCHS OPERATIONS AND MANAGEMENT

Today, RTCHS is a private company that is transitioning from providing specialized HIV care to becoming a provider of integrated health and wellness services (Right to Care 2013). In 2004, RTCHS first emerged as part of the aforementioned wave of private sector initiatives to control HIV-related losses in staff productivity and morale by providing testing and treatment services. As the financing environment for HIV care changed over the course of the last decade, RTCHS evolved as an implementer for PEPFAR-funded GP networks and other public-private partnership arrangements. This section describes RTCHS' overall operating model, while the following sections describes three RTCHS models in detail.

RTCHS provides workplace HIV outreach services to a corporate client base representing more than 80,000 employees across a wide geographic area. After HIV-positive clients are identified through outreach or provider referral, RTCHS coordinates the delivery of HIV and ART services through contractual relationships with private sector GPs. According to RTCHS's 2012 Annual Report, more than 131,000 people received HCT, a 77 percent increase over the 74,000 reported in the 2011 fiscal year.

As illustrated in Figure 3, RTCHS has implemented three different models of HIV and AIDS card between 2004 and 2014.

FIGURE 3. TIMELINE OF VARIOUS RTCHS MODELS FOR DELIVERING HIV AND AIDS CARE (2004–2014)



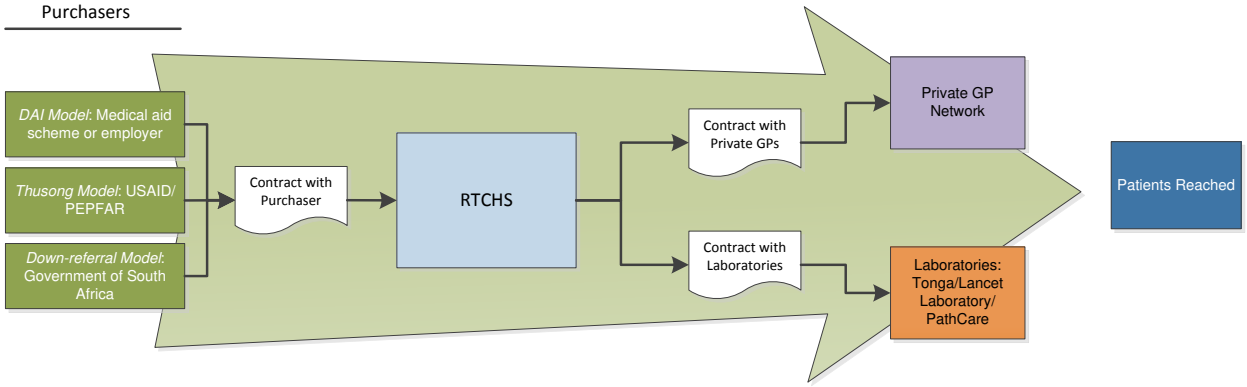
RTCHS has delivered HIV and AIDS care and treatment through the following three models:

1. The DAI model, which is financed through medical aid and employer-sponsored insurance, has been operating since 2004.
2. The Thusong model, which was financed by PEPFAR and targeted HIV-positive people who were unemployed or who were low-income workers without coverage through medical aid or insurance schemes, operated from 2004 to 2012.
3. The Down-Referral model, which is financed by PEPFAR and the South African government, began operating in 2012 as a public-private partnership to refer stable ART patients from Helen Joseph public ART center to RTCHS affiliate private GPs.

Since 2002, RTC had been providing HIV and TB services through an employer-based delivery model that eventually became the DAI model. In 2008, RTCHS began operations after the RTC Board of Directors decided to streamline and tailor the organization's involvement in HIV and AIDS services, to increase access to private care, and to ensure greater accountability for its USAID and other internationally funded activities (Right to Care, 2008).

For each model, RTCHS entered into a contract to provide services per the terms of several purchaser types: RTC, medical aid schemes, employers, the South African government, and PEPFAR. Structural differences among RTCHS's models are largely a function of the goals of each payer and the changing landscape of financing HIV and AIDS care and treatment. For example, the phase-out of the PEPFAR funded Thusong model during the emergence of the Down-Referral model demonstrated both, the planned PEPFAR transition away from direct service delivery toward technical assistance, and the South African government's increasing commitment to contracting the private sector to deliver public health projects. This model was also intended to inform the development of contracts for the new national health insurance program. Figure 4 presents three main contractual arrangements—the contract between RTCHS and the purchaser, contracts with private GPs, and contracts with private laboratory service providers—as well as the major institutional players involved in delivering HIV and AIDS care to the patients targeted by each model.

FIGURE 4. CONTRACTUAL ARRANGEMENTS GUIDING THE DELIVERY OF HIV AND AIDS CARE AND TREATMENT SERVICES



The study discovered that the contractual arrangements between RTCHS and each purchaser determined how RTCHS structured its other contracts with private GPs and laboratory service providers.[3]

3.1 PATIENT CASE MANAGEMENT

The three models demonstrate several similarities with respect to patient flow and case management. While each model used a different definition of patient eligibility for program participation, they all relied on similar methods of registering and monitoring patients. After voluntary testing confirmed a patient's HIV status and patients met required thresholds for CD4 counts, patients were assigned to an RTCHS-affiliated private GP that lived in their area. If a patient or employer involved in the DAI or Thusong model requested a specific physician RTCHS would attempt to incorporate that physician into the RTCHS care network, or suggest a geographically similar RTCHS affiliated GP. Patients in the Thusong and Down-referral models were assigned to RTCHS affiliated GPs in their local area but did have choice to visit other RTCHS GPs for confidentially or geographic reasons. Each patient was assigned to an RTCHS case manager who oversaw his or her care and treatment from the call center at the RTCHS

[3] It is important to note that the word "network" as used throughout this report refers to all the GPs with whom RTCHS contracted to serve as providers in its various models. The GPs noted in this report have not formed a formal organization and have not necessarily entered into contractual arrangements with one another.

head office. Case managers were generally registered nurses who were available via the RTCHS 24-hour medical telephone line. They played an important role in helping patients gain access to their required clinical care and were an important source of psychosocial care.

Upon registration, patients' information was entered into Therapy Edge, RTCHS' web-based health management information system. Interviews with RTCHS-affiliated GPs, administrators, and case managers noted that clinical monitoring and automated financial record-keeping through Therapy Edge was critical to the success of RTCHS' models of care. For example, continuous tracking and telephone case management facilitated patients' adherence to treatment plans. Furthermore, Therapy Edge offered a web-based claims submission platform that enabled GPs and laboratory providers to receive paperless reimbursement. Claims for reimbursement could be filed at the point of care, thereby reducing the administrative costs associated with manual systems.

3.2 THE RTCHS-AFFILIATED GENERAL PRACTITIONER NETWORK

All three models covered general medical consultations with RTCHS-affiliated GPs. Under each model, RTCHS managed relationships with several independent private GPs who were contracted to deliver a specified range of HIV and AIDS care to patients registered in an RTHCS-administered model. Eligible patients were not required to make out-of-pocket payments for covered services at the point of care. Rather, GPs regularly invoiced RTCHS for care according to an agreed-upon price list for each RTCHS-approved provided service. GPs received reimbursement only for services provided in accordance with the price list, which underwent annual updates. In this manner, GPs assumed the financial risk of covering patients in instances when treatment was delivered outside the benefit schedules or treatment protocols associated with each model. In exchange for accepting the associated financial risks, GPs reported that the models provided the incentive to partner with RTCHS to obtain access to large patient volumes supported by a reliable payer.

At the outset, the service delivery arrangements between GPs and RTCHS were largely informal. However, interviews with the GPs and RTCHS administrators revealed a number of challenges that led to the formalization of these arrangements in the form of contracts. GPs and RTCHS administrators cited the following challenges:

1. **Difficulty in verifying patient eligibility for program participation.** Interviews with patients and RTCHS staff reported that there were instances when GPs turned away patients who were eligible for coverage because some GPs were confused about how to verify patients' eligibility.
2. **Difficulty in invoicing according to required documentation.** Early miscommunication between RTCHS and GPs around the agreed-upon price lists may have resulted in RTCHS's failure to pay and disputes over the amounts reimbursed. Financial disputes strained relationships with GPs and negatively affected their willingness to continue the relationship with RTCHS.
3. **Miscommunication concerning benefit levels for different types of patients.** As noted in Sections 4–6, each model delivered different benefit levels for different types of patients. Interviews with GPs and RTCHS administrators revealed confusion among some GPs in differentiating between Thusong patients and DAI patients, leading to billing disputes for services provided to one or both patient types when it came time for reimbursement.
4. **Difficulty in coordinating business processes at GPs' offices with RTCHS management information systems.** GPs interested in becoming RTCHS service providers

had to adapt their management information systems to make them consistent with the Therapy Edge database. The synchronization of GPs' and RTCHS' health information platforms was especially difficult for GPs who preferred the continued use of paper-based systems. Furthermore, interviews with RTCHS administrators reported instances when Therapy Edge did not properly process claims as a consequence of minor errors overlooked in the automated process. RTCHS administrators also reported instances when Therapy Edge either did not record claims or failed to document proof that a claim was made. These difficulties, though reportedly rare, placed GPs at financial risk of nonpayment. Similarly, these difficulties may have prevented Therapy Edge from appropriately reporting patient information to case managers; as a result, case managers may not have had access to the most up to date information when advising patients.

5. **Protocols attached to payment may restrict GPs' ability to respond to patients on a case-by-case basis.** Some GPs and RTCHS administrators reported that the strict adherence to RTCHS billing protocols and benefit schedules required by each model prevented clinicians from individualizing patient care. For example, one RTCHS administrator commented:

> *You as the doctor have no decision-making power. So you can't overrule because you know that you won't get paid … you might be seeing the patient and know that the patient needs more than just the basics that they're covered for. So it disempowers the clinician in that sense. … If you step outside [of protocol], you won't get paid.*

Treatment protocols linked to billing procedures allowed RTCHS to control the cost of care. However, these same billing schedules restricted clinicians' ability to respond to a diverse range of patient needs.

It is important to note that these challenges were largely the result of early miscommunication between RTCHS and GPs which resulted in confusion around how to implement the models. Interviews with stakeholders did not mention any issues related to fraud on the part of service providers or unfair refusals of payment. To respond to the challenges presented above, RTCHS began to formalize contracts with GPs in 2011 to ensure clear specification of the terms of service delivery. To reinforce these terms, RTCHS and GPs met on a quarterly basis to review pending reimbursements, settle claims disputes, and address client satisfaction issues.

3.3 THE RTCHS STRUCTURE AND THREE CONTRACTING MODELS

Throughout the implementation of all three models, RTCHS used the RightMed Pharmacy, Therapy Edge, and the telephone case management system to manage broad networks of GPs and diverse types of patients. However, it is important to note that the time period of each model's implementation affected each model's design. For example, before 2011 (when only the DAI and Thusong programs were in operation), RTCHS did not formalize contractual arrangements with GPs and laboratory service providers. Interviews with various stakeholders revealed that, over time, the institutional players improved their systems to address the challenges faced by each model.

4. THE DAI MODEL

This section presents an overview of the DAI model's structure, patient profiles and then outlines the associated pharmacy and laboratory structures. It concludes with a brief discussion of the model's unique contracting issues.

4.1 PROGRAM OVERVIEW

The DAI model began operating in 2004 in all nine of South Africa's provinces, and was the first contracting model implemented by RTCHS to link private companies with private sector GPs. It traces its origin to increased demand for comprehensive coverage of HIV and AIDS care in response to the success of RTC's HCT activities and workplace wellness programs. Employer-sponsored private insurance (e.g., Alexander Forbes Group and Hyatt Regency) and medical aid schemes (e.g., Discovery Health and MMed Medical Aid) financed the model, which aimed to engage workplaces and employers to see the value of employee HIV care and insurance coverage as part of their core business strategy. Employers contracted with RTCHS to provide HCT and HIV management services covered by employer-sponsored private insurance or medical aid schemes. Participants stated that employers' motivation for contracting with RTCHS was to improve employee productivity, promote occupational safety, reduce absenteeism and staff turnover, and minimize the administrative effort involved in directly organizing care with GPs.

RTCHS operational staff reported that medical aid schemes and employers requested fairly comprehensive data on the utilization of various services. Medical aid schemes use the data to price various forms of coverage accurately and to monitor the value of such coverage to clients. For their part, employers were interested in whether coverage reduced absenteeism or increased productivity. To meet these needs in 2008, RTCHS invested in Therapy Edge as a real-time online platform. RTCHS further developed the platform to be interoperable with employers' and medical aid schemes' own management information systems.

Along with the delivery of services, RTCHS incorporated other value-added services offered at the workplace, such as the following:

- Employing an on-site wellness coordinator to address general health issues and health promotion
- Ensuring the availability of outreach and marketing materials
- Conducting regular HIV testing campaigns

Outreach campaigns raised awareness about HIV and AIDS, reduced stigma attached with workplace disclosure, and promoted early detection of infection. In addition, the services helped promote the value of the RTCHS brand.

Using a standard formulary of services, drugs, and laboratory services, RTCHS administered the DAI model with prices negotiated on an annual basis. For example, RTCHS paid $58 for an initial HIV screening and assessment consultation and $39 for every follow-up consultation. The employer or medical aid scheme determined the benefit packages, which generally included HIV testing, multivitamins, food supplementation, laboratory services, delivery fees for

supplements and medication, and ARVs. GPs, laboratories, and couriers billed RTCHS, which in turn directly billed medical aid schemes or employers.

4.2 DAI PATIENT PROFILES

RTCHS case managers were generally assigned to designated companies. They reported that most DAI patients were identified through workplace testing campaigns. Some DAI patients contacted RTCHS directly because they were aware that the program was offered at their workplace or they tested positive at another clinic or private GP. In some cases, an authorized workplace representative referred patients to the program. Those who tested negative were retested within three to six months and thereafter on an annual basis. Those who tested positive received pre- and post-VCT counselling services. During the initial visit, patients received a detailed physical examination that included blood serology and review of their medical history. Overall, DAI patients tended to be healthy, middle-class working people, more or less equally distributed by gender. Given that DAI patients were employed, RTCHS case managers reported that many patients had fairly high incomes and education levels and a good understanding of their HIV and AIDS care.

Despite the advantages inherent in having HIV and AIDS care available to employees in or near their workplace, the DAI model gave rise to some challenges. Interviews with RTCHS case managers revealed that many patients were suspicious that the system did not protect their privacy and voiced concern that disclosure of their status at their place of employment would affect promotions and interactions with colleagues. Furthermore, RTCHS case managers reported that some patients were skeptical that the program did not require some out-of-pocket expenditure. During interviews with patients, some respondents assumed that that participation in the program might come with hidden costs to the patient.

Drawing on data from 910 DAI patient medical records from Gauteng Province, Table 1 presents the demographic characteristics of patients under the DAI model. Approximately 48 percent of patients were between age 30 and 39, and 30 percent were between age 40 and 49. The mean age was 38.8 years. Women represented a greater proportion (57 percent) of patients under the DAI model as compared with men who represented the minority (43 percent). This is generally consistent with research and national prevalence data demonstrating a higher prevalence of HIV among women; however, the proportion of women could also have been affected by such factors as the lower representation of women in some workforce segments. In addition, 94 percent of patients in the DAI model were self-identified black South African.

TABLE 1. DAI MODEL: PATIENT DEMOGRAPHIC CHARACTERISTICS

Characteristics	N (percentage)
Age	
18–29 years	95 (10.4)
30–39 years	434 (47.7)
40–49 years	276 (30.3)
50–70 years	105 (11.5)
Gender	
Female	515 (56.6)
Male	395 (43.4)
Ethnicity	
Black South African	853 (93.7)
Asian	2 (0.2)
Colored	15 (1.6)
Unknown	31 (3.4)
White	9 (1.0)
Total (N)	**910**

Among the 910 records reviewed, 541 included ART regimen information as presented in Table 2. Seventy-eight percent of patients (N = 424) were on first-line ART regimens (meaning the first ART regimen received by a patient); 18.5 percent (N = 100) of patients were on second-line ART regimens (protease inhibitor–based); and 3.1 percent of patients were on third-line ART regimens (for people who failed the first two regimens).

TABLE 2. DAI MODEL: ART REGIMENS

ART Regimen	N (percentage)
First-line regimens	424 (78.4)
Second-line regimens	100 (18.5)
Third-line regimens	17 (3.1)
Total (N)	**541**

Several stakeholders reported that GPs working under the DAI model could prescribe from a wide range of ARVs and often prescribed brand-name drugs. However, RTCHS clinical staff reported that GPs frequently changed prescribing patterns under the DAI model and often confused patients as to which drugs to expect upon delivery. GPs ordered diagnostic blood tests every three to six months, potentially including CD4 count, viral load, as well as liver and kidney function.

During their interviews, patients revealed that they were highly satisfied with the care they received under the DAI model. Patients described their GP as supportive and confidential. They also noted that GPs took the time needed to perform thorough physical examinations at each visit and to explain treatment in a simple and respectful manner. Patients reported that the care they received was the type of care they expected from private facilities and that public clinics offered lower-quality care by comparison. Patients were pleased that medications were delivered on time, and they enjoyed the support and compassion of RTCHS case managers.

Patients described case managers as essential in ensuring adherence to treatments and verifying the timely receipt of medication.

4.3 PHARMACEUTICAL DRUG DISTRIBUTION UNDER THE DAI MODEL

RTCHS headquarters in Gauteng Province housed an on-site pharmacy called RightMed Atrium Pharmacy (RightMed) that provided the DAI model's pharmaceutical procurement and dispensing services. RTCHS pharmacy staff verified medications and products and clarified patients' treatment plans with RTCHS Case Managers. RTCHS pharmacy staff did not have direct contact with patients; patients instead relied on their assigned case manager as their primary point of contact with RTCHS.

A pharmacy management system integrated with Therapy Edge confidentially tracked all medications dispensed through RTCHS. Integration of the two systems helped ensure clinical accuracy and the appropriate projection of drug supplies. To ensure patients' privacy, ARVs and other medications were confidentially delivered to patients' homes, designated post offices, or workplaces in packaging that did not reveal any information about package contents. RightMed dispensed up to three months of medication at a time so that patients would not have to visit the pharmacy monthly for routine prescription refills. Mobile telephone text messages alerted patients to the need for a refill; the message included a tracking number indicating when the prescription was ready for pick-up. Case managers received the information about needed refills and called patients on a regular basis as part of care plan monitoring. Interviews with RTCHS pharmacy staff suggested that PEPFAR reporting requirements also facilitated accurate and timely drug forecasting and assisted in tracking any changes in patients' drug regimen. In addition, bulk purchasing and long-standing relationships with drug wholesalers allowed RTCHS to save on pharmaceutical procurement costs.

With respect to the challenges faced by RightMed, pharmacy staff reported that, without direct access to patients, they sometimes experienced difficulty in resolving issues such as a patient's incorrect address. If the pharmacy sent the medicine to an incorrect address and the package was returned, regulations prevented the pharmacy from redispensing the medicine; instead, RightMed had to destroy the medicine. Thus, communication between case managers and pharmacy staff was important to ensure that various staff members had access to the most current patient information. Another challenge was when a patient moved to a new location and failed to update his or her case manager. In addition, pharmacy staff reported that the tracking system was unable to determine automatically if patients collected their parcels from the post office. The interviewees reported that they handled these problems on a case-by-case basis.

4.4 LABORATORY SERVICE DELIVERY UNDER THE DAI MODEL

RTCHS entered into agreements for laboratory services with Lancet Laboratories, Pathcare (a group of amalgamated private diagnostic pathology practices), and Toga Laboratories. For routine serology and blood tests, RTCHS batched the collection of samples at local collection depots rather than requiring patients to visit their GP. The location of collection depots near patients' places of residence meant that employed patients took less time away from work and therefore increased their productivity while clinical providers were not overburdened with routine laboratory work. The contracted laboratory firms billed RTCHS periodically in large volumes instead of sending invoices for individual patients. Batched billing reduced the administrative burden on the laboratories and RTCHS. The laboratories uploaded the results of diagnostic

tests directly to Therapy Edge, which was fully integrated into the other services provided by RTCHS.

4.5 CONTRACTING ISSUES UNDER THE DAI MODEL

The DAI model offered long-term potential as a privately funded model that could meet the needs of mainly employed and insured clients. Given that RTCHS had to demonstrate the value of its services to all employees and not just to those testing positive for HIV, it invested in the delivery of non-clinical value-added services as well. The services—such as hosting health promotion events, installing wellness coordinators, and conducting regular promotional activities—generated significant costs for RTCHS but increased the likelihood that employers and medical aid schemes would continue contracting with RTCHS.

At the same time, the DAI model's payment systems proved to be particularly complicated because of the interoperability required in working with several management information systems. If an employer or medical aid scheme's management information system was outdated or incompatible with Therapy Edge, then RTCHS might experience payment delays that could further compromise normal operations (e.g., ordering medications). Persistent delays could have created financial risks for RTCHS's long-term sustainability, leading to the termination of contracts.

Several patients voiced concern over their future HIV care if their employer were to terminate its contract with RTCHS. One patient commented:

> *[My company is] undergoing restructuring, but I heard that this will be one of the projects that will be taken away from staff. … So if I were to wake up and say and find out that the Right to Care does not exist I think my life would be crushed.*
>
> —ART DAI patient (female)

The DAI model's care and treatment programs along with its non-clinical value-added elements were designed to elicit employee loyalty to ensure that employees would pressure employers and medical aid schemes to continue their contracts with RTCHS.

The network of private GPs under the DAI model signaled to patients that the model would ensure the delivery of high-quality care. However, the GP network was sometimes difficult to manage. RTCHS staff reported challenges in contracting with some GPs who were requested by patients but were outside their current network. The GPs who refused to contract with RTCHS reportedly preferred to serve cash-paying patients, and they were unwilling to agree to the reimbursement process required for participation in the RTCHS network. In addition, interviews with RTCHS case managers disclosed that many GPs who newly entered the RTCHS network lacked expertise in HIV and AIDS care. In response, RTCHS delivered technical assistance to GPs inexperienced in HIV and AIDS care, further increasing program costs.

5. THE THUSONG MODEL (2005/06–2012)

This section presents an overview of the Thusong model's structure, patient profiles, and explains its pharmacy and laboratory structures. It then concludes with a brief discussion of the model's unique contracting issues.

5.1 PROGRAM OVERVIEW

RTCHS administered the PEPFAR-funded Thusong program from 2005 to 2012. A total of 6,000 patients participated in the model. Following the early success of the DAI model in extending HIV testing and treatment to workplaces and to individuals covered by medical aid schemes, RTCHS launched the Thusong model in partnership with PEPFAR, with the goal of providing HIV and AIDS care to patients who were impoverished, unable to pay for treatment, and unable to access treatment through their employers or medical aid schemes. The Thusong model was part of PEPFAR's broader national effort to involve South Africa's private sector GPs in HIV care in order to relieve overburdened public and private not-for-profit health facilities.

Funding for the Thusong model flowed through PEPFAR/USAID to RTC and from RTC to RTCHS. PEPFAR funding covered all operating costs associated with HIV and AIDS treatment (including ARVs and prevention of opportunistic infections), routine laboratory tests, and drug and laboratory courier fees. PEPFAR funding also allowed for establishment of the RTCHS call center for case managers' use in following up with patients. RTCHS invoiced RTC on a monthly basis for all costs associated with the model, with the Thusong contract structured so as not to generate any profits. Thus, RTC paid RTCHS solely for operating costs. PEPFAR/USAID eventually phased out funding for the Thusong model at the end of 2012 as part of PFIP's planned transition of PEPFAR-funded GP networks. As discussed in Box 1, the lack of public financing to replace PEPFAR funding led to the termination of the Thusong model and the need to transfer all Thusong patients back to care delivered by the public sector.

RTCHS used three primary methods to identify and then enroll patients in the Thusong model. First, the Thusong model recruited patients through community testing sites. Secondly, the RTCHS staff also recruited for patients during DAI workplace testing campaigns. At these campaigns, RTCHS staff tried to identify security guards, cleaning staff, and other workers who might not have been formal employees and therefore were not eligible for the DAI model. Those patients who were ineligible for the DAI were recruited into the Thusong model. Lastly, GPs within the RTCHS network identified eligible patients for enrollment in the Thusong model and then initiated care.

RTCHS administrators reported that some GPs who treated patients under the DAI model refused to participate in the Thusong model; they reported that they would receive insufficient compensation for consultations. GPs in the Thusong program received $25 for the initial visit and $21 for follow-up visits. These rates were agreed to by PEPFAR/USAID and RTCHS during early dialogue with the Provincial Department of Health. Senior RTCHS administrators stated that these rates were meant to be both attractive to GPs but also low enough that the PDoH/NDoH could one day potentially absorb treatment costs. A number of GPs stated that reimbursement rates were indeed lower than they would receive from patients paying out of

pocket. GPs reported that their primary motivation for participating in the Thusong model was not financial gain, but rather a desire to better the lives of people living with HIV and AIDS.

5.2 PATIENT PROFILES AND EXPERIENCE UNDER THE THUSONG MODEL

The Thusong model targeted patients earning less than $341 per month and patients with a CD4 count equal to or less than 200. Eligible patients could not be a member of an employer-sponsored HIV and AIDS treatment program or medical aid scheme. Many patients fell into the low- to mid-level socioeconomic groups. Nearly all Thusong patients were black South African, except for three who did not report their ethnicity. Some patients were newly identified with HIV, and others were already aware of their status and had been receiving care elsewhere. Several impoverished patients or patients with complex cases required focused interventions. Table 3 presents the distribution of Thusong patients by age, gender, and ethnicity based on data from the 161 patient medical records from Gauteng Province.

TABLE 3. THUSONG MODEL: PATIENT DEMOGRAPHIC CHARACTERISTICS IN GAUTENG PROVINCE

Characteristics	N (percentage)
Age	
18–29 years	14 (8.7)
30–39 years	64 (39.8)
40–49 years	43 (26.7)
50–70 years	40 (24.8)
Gender	
Female	104 (64.6)
Male	57 (35.4)
Ethnicity	
Black South African	158 (98.1)
Unknown	3 (1.9)
Total (N)	**161**

Approximately 40 percent of patients were between age 30 and 39; the mean age was 41.6 years. Sixty-five percent were female, and 98 percent were black South African. No patients identified as white, Asian, or colored (of mixed race).

RTCHS case managers and GPs reported that many Thusong patients entered the program with both low CD4 counts and had acute complications because most Thusong patients had not visited a health care facility until they were severely ill. Unfortunately, such patients required frequent referral to tertiary care or private specialists. Some GPs reported that Thusong patients' cases were generally more complex than DAI patients' cases.

The Thusong model initiated ARV regimens when patients had a CD4 count below 200 cells/mm3 as initially set by the World Health Organization for ART initiation. As outlined in Table 4, among the 161 Thusong medical records reviewed, 138 included ARV regimen information.

TABLE 4. THUSONG MODEL: PATIENT ART REGIMEN

Regimen	N (percentage)
First-line regimens	111 (80.4)
Second-line regimens	26 (18.8)
Third-line regimens	1 (0.6)
Total (N)	**138**

Eighty percent of patients were on first-line ART regimens; 19 percent of patients were on second-line ART regimens; and only one patient was on a third-line ART regimen. The significant number of patients on first-line ARV regimens meant that drug combinations were generally consistent with those provided by the public health system. Furthermore, patients were rarely switched to higher level meds because physicians were limited RTCHS treatment and billing protocol.

5.3 PHARMACEUTICAL DRUG DISTRIBUTION UNDER THE THUSONG MODEL

Under the Thusong model, RightMed handled the delivery of prescription drugs. However, instead of delivering prescriptions to a patient's home or workplace as per the DAI model, RightMed delivered medications in bulk to a central distribution point (typically a regional GP clinic). Patients then visited their GP or an RTCHS distribution center to pick up their medication. In addition, the Thusong model required GPs who contracted with RTCHS to abide by a set of protocols designed to contain costs. Accordingly, prescription coverage under the model included only essential ARVs, vitamins, minerals, and some medicines for the treatment of opportunistic infections.

Pharmaceuticals were available from the RightMed pharmacy and the PEPFAR-subsidized public supply chains, further reducing costs. RightMed staff reported extreme satisfaction in working with PEPFAR on drug procurement for the Thusong model; because they were able to access drugs at volume and therefore at lower prices. PEPFAR pharmaceutical administrators reported that they received on-time payments, which prevented stock shortages. One RightMed pharmacist reported that the Thusong model was the easiest of the three contracting out models to work with because Toga Laboratories (a private diagnostic facility sponsored by USAID to collaborate with RTCHS on Thusong) operated and maintained a strong supply system for medicines and medical products.

5.4 DELIVERY OF LABORATORY SERVICES UNDER THE THUSONG MODEL

As with the DAI model, Thusong patients could access services from Lancet Laboratories, Pathcare (a group of amalgamated private diagnostic pathology practices), and Toga Laboratories. However, communications with GPs (Right to Care Health Services 2011) showed that Toga was the Thusong model's preferred laboratory services provider. Supported by USAID, Toga Laboratories subsidized the cost of supportive diagnostics, including CD4, blood tests, viral load, and X-rays. The Thusong model did not cover the cost of HIV tests and initial CD4 serology and instead required eligible patients to enter the program with confirmed results from an HCT center or public health facility. The Thusong model also utilized RTCHS's network of depots to collect samples required for routine blood work.

5.5 CONTRACTUAL ISSUES UNDER THE THUSONG MODEL

The Thusong model was administered through the same operational model that RTCHS had developed under the DAI model. The parallel operation of both programs allowed patients who lost their employment or employer-based coverage in the DAI model to continue their care under the Thusong model. Furthermore, both the Thusong and DAI models established strong relationships between private providers and patients. From a contractual perspective, the Thusong model faced some challenges, especially in relation to PEPFAR funding during a period of great transition.

From the outset, contracts with GPs were largely relationship-based between doctors or based on informal fee-for-service agreements. According to an RTCHS administrator, the lack of clarity around terms of service (before the advent of standardized contracts in 2011) led to the monthly rejection of claims worth as much as $19,474, a figure representing the cost to GPs who failed to follow the approved treatment guidelines. Until the formalization of service contracts and improved communication with RTCHS staff, the rejection of claims strained relationships with GPs.

Patient group interviews revealed a number of areas of satisfaction with the care provided under the Thusong model as compared to the care delivered by the public sector. Patients reported the following benefits of the Thusong model:

- Private providers' professionalism and compassion
- High level of confidentiality and respect for patient privacy
- No need to wait in long public queues for GP consultations, medications, or laboratory tests
- Reliable medication delivery and flexibility in collecting medication
- Easy enrollment and appointment-making processes

Despite the benefits noted by interview participants, PEPFAR funding for Thusong was phased out as part of PFIP's planned discontinuation of PEPFAR-funded GP networks. While RTCHS administrators stated that they were well aware that the five-year grant for Thusong model was drawing to a close, they did not expect that PEPFAR would completely withdraw its funding. From PEFPAR's perspective, it was the responsibility of the South African government to absorb wholly or in part the capacity developed by PEPFAR-funded intermediary NGOs. RTCHS administrators and staff reported that communication among RTCHS, USAID, and government was a major challenge in the period leading up to the phase-out of the Thusong model. RTCHS staff reported that they were uncertain of the exact timing and procedures for phasing out the Thusong model and were required to quickly organize the transfer of Thusong patients back to public care.

RTCHS case managers faced the logistical challenge of transferring Thusong patients to the public sector's overburdened health care system; however, case managers reported that, beyond informing patients of the model's phase-out and providing referral transfer letters, they could do little else to maintain the continuum of care. Most Thusong patients received sufficient medication from RTCHS (six months for stable patients) to cover their transition to a point of care in the public sector's health system or to finance their care themselves. In addition to its impact on patient care, Thusong's phase-out had a significant financial impact on RTCHS, which lost the management fee it received from PEPFAR. RTCHS had no choice but to identify

new financing sources for continued operation of the case manager system and telephone hotline.

The phase-out of Thusong significantly affected RTCHS, GPs, external partners, and patients. Even with their efforts to avoid treatment disruptions, RTCHS and PEPFAR had no control over the standard of care provided to former Thusong patients once the patients returned to the public sector's health care system.

Through interviews, RTCHS administrators, staff, providers, and patients described several consequences following the phase-out of the Thusong model. In particular, patient interviews reported difficulties in accessing care upon referral back to the public sector. Thusong patients that were transitioned to public care pointed to challenges such as refusal of service, limited consultation time with public sector doctors, long queues for medication, loss of time (and, in one case, loss of employment) because of long waiting times for care, and confusion about different drug configurations or regimens.

One RightMed pharmacist noted the complications and concerns related to transferring patients on second or third line ART back to the public system by stating,

> *It's quality of care, a lot of our patients were on—well, quite a few of our patients were on drugs they might not be able to get in the state, and they've been put on those drugs because of side effects or complications that had occurred … that could mean you can't get Abacavir and Atazanavir in the state. … It's a bit difficult to decide now what to do with them, how to manage them.*

Patients expressed similar confusion and mistreatment. For example, one patient described his confusion during his first attempt to collect ARVs from a public sector pharmacy by describing, "They said they ran out of funds, and they referred me to Helen Joseph Hospital, and then they came back to me saying, 'Helen Joseph doesn't want you there and it's full'."

Furthermore, Toga, Lancet, Pathcare, and other pathology partners lost significant volumes of patients, reducing their income and their incentive to participate in RTCHS programs. GPs experienced financial losses because of forgone income from consultation fees and lost benefits associated with patient volume. Some GPs refused to complete transfer letters for patients, as one GP reported, "Patient[s] had to be transferred. It was quite a process, it was quite an exercise. Some other doctors refused to write those letters. Instead, because at stage we had a problem with the doctors they were just saying go to the [public] clinic and they were dumped like that."

It is difficult to quantify exactly how widespread these experiences were during the Thusong phase out; however, interviews suggest that the negative experiences were quite common. The phase out of the Thusong model thus underscores the difficulty of maintaining quality and continuum of care for patients supported by PEPFAR funded GP networks after the 2012 phase out declared in the PFIP. The experience with the Thusong model underscores the fact that phasing out significant international donor support for HIV and AIDS care programs requires careful planning, transparent dialogue, and major financial commitments from the South African government or other sources to maintain continuity of care for patients previously supported by PEPFAR or other international sources of funding. After the Thusong model phased out according to the timeline set in the PFIP, patients who could not afford to continue care through private GPs were transferred back to the public sector.

6. THE DOWN-REFERRAL MODEL (2011–PRESENT)

This section presents an overview of the Down-Referral model's structure, profiles of its patients, and describes how the public sector administered pharmaceutical and laboratory services. It then concludes with a brief discussion of the model's unique contracting issues.

6.1 PROGRAM OVERVIEW

Even before the abrupt phase-out of the Thusong model, RTCHS was in discussions with the Helen Joseph Hospital's Thembalethu Clinic (a large public ART center) and the Provincial Department of Health to develop a public-private partnership to refer stable patients out of crowded public facilities and into private case management. This was in response to an ever increasing number of stable ART patients at public sector facilities, who could presumably be cared for with basic prescription and laboratory follow-up at private GPs.

RTCHS launched the Down-Referral model as a two-year pilot project in partnership with the public sector Thembalethu Clinic (based at Helen Joseph Hospital in Johannesburg) and the Gauteng Provincial Department of Health. In an effort to cost-effectively transfer patients from the overcrowded Thembalethu clinic to the RTCHS GP network, the pilot was formally launched at the end of 2011 to test the cost-effectiveness of transferring stable ART patients from public sector clinics to private sector clinics. Before the pilot's launch, Thembalethu Clinic was seeing more than 14,000 patients per month, severely straining its human resource capacity. Several GPs reported that visits for routine prescription refills or routine follow-up consultations largely accounted for the clinic's high volume of monthly visits. They noted that, from a clinical perspective, a significant share of patient visits were not necessary. Most stable patients did not need the attention of a medical doctor, and many patients visited the clinic either to collect their medication or undergo routine laboratory tests. With the large volume of patient visits, medical doctors had insufficient time to tend to patients who needed to initiate treatment or who required more sophisticated clinical services. One GP noted:

> *Patients just think that because they are Thembalethu patients, even if they have a toothache they have to come to you. If they've got an eye problem they come to you. It ends up overloading the system because you cannot say "No, go away."*

To address these issues, the Down-Referral model set out to refer 500 stable patients from Thembalethu Clinic to ten GPs within the RTCHS network. The transfer of stable patients to private GPs would reduce the burden on the public clinic and strengthen partnerships between government facilities—such as Helen Joseph Hospital—- and private GPs. The Gauteng Provincial Department of Health was able to leverage the experience and management systems developed by RTCHS under the DAI and Thusong models.

Per the terms of the Down-Referral model, the public sector covered the cost of all medications and laboratory services as part of NHLS and the core budget of Helen Joseph Hospital. RTC signed a service agreement with RTCHS whereby RTCHS agreed to use PEPFAR/USAID

funds to administer the following aspects of the Down-Referral model: case management, GP network management, and bill payment. However, rather than billing for every service rendered on a fee-for-service basis (per the DAI and Thusong models), RTCHS received payment on a capitated basis for services rendered. With capitated payment, RTCHS received a payment from RTC based on the number of patients it was managing under the program according to the schedule in Table 5.

TABLE 5. DOWN-REFERRAL MODEL: RTCHS PAYMENT SCHEDULE

Number of Patients	Rate of Monthly Payment
1–368 patients	$25.37 per patient per month
369–500 patients	$34.55 per patient per month
More than 500 patients	$22.34 per patient per month

According to RTCHS administrators, these rates were negotiated with the GPs to incentivize participation but set reimbursement at levels that the South African government could afford through the national health insurance program or by other funding arrangements. GPs billed RTCHS directly and were reimbursed by RTCHS with PEPFAR and RTCHS operating funds; GPs received the $21 consultation fee as in the Thusong model. The intent was that, one day, public funds would cover GPs' Down-Referral consultation fees through an NHI program. In the interim, one RTCHS administrator noted that, to prevent the Down-Referral model's abrupt phase-out, RTCHS was considering additional sources of financing, such as patients' out-of-pocket payments. At the same time, Helen Joseph Hospital performed and processed laboratory tests. The public sector procured and paid for medications and then released them to RightMed for dispensing to GPs participating in the Down-Referral model.

6.2 PATIENT PROFILES AND EXPERIENCE

As a pilot project, the Down-Referral model imposed relatively strict criteria that determined which patients were eligible for transfer to RTCHS GPs. A provincial-level team of RTCHS and public sector managers and clinicians developed the criteria for identifying the initial 500 patients for down-referral. The pilot project focused on "stable" patients who met the following criteria:

- CD4 count greater than 200 to 250 cell/mm3
- An undetectable viral load
- Not on Stavudine or second-line ARVs
- No history of biological treatment failure
- No existing complications or comorbid conditions (e.g., TB) or secondary chronic illness (e.g., diabetes)

Public sector managers wanted to ensure that a patient's condition would be easy to maintain. As one GP noted, stable patients initially made limited demands on private GPs and freed Thembalethu Clinic staff to attend to new patients and patients with complex conditions.

During regular consultations or as part of targeted chart reviews, GPs and nurses at Thembalethu Clinic identified stable patients suited to the pilot. For such patients, especially stable patients thriving on first-line regimens, the Down-Referral model controlled care inclusions by specifying the provisions for medication, consultations, and laboratory tests. Unlike the case of the DAI model, down-referred patients did not have flexibility in their choice of GP,

as RTCHS had identified only ten high-performing GPs to participate in the pilot project. A patient's place of residence determined his or her assignment to the closest GP.

The pilot project included only adults. Table 6 presents the distribution of GP down-referral patients by age, gender, and ethnicity based on data from 265 patient medical records (this figure represents the total population in the database at the time that the data was collected).

TABLE 6. DOWN-REFERRAL MODEL: PATIENT DEMOGRAPHIC CHARACTERISTICS

Characteristics	N (percentage)
Age	
18–29 years	18 (6.8)
30–39 years	104 (40.8)
40–49 years	111 (41.9)
50–70 years	28 (10.6)
Gender	
Female	203 (76.6)
Male	62 (23.4)
Ethnicity	
African	253 (95.5)
Unknown	2 (0.8)
Colored	7 (2.6)
Unknown	3 (1.1)
Total (N)	**265**

Approximately 40 percent of patients were between age 30 and 39, and 42 percent were between age 40 and 49. The mean age was 40.2 years. Seventy-seven percent of patients were female, and 96 percent were black South African. No patients identified as white. In terms of socioeconomic status, one RTCHS manager reported that down-referral patients clustered in the lower socioeconomic groups and were unable to pay for medical aid schemes.

Among the 265 medical records reviewed, 248 patients had ART regimen information on file (Table 7). Given that patients had initiated ART in the public sector and that the government provided medications for the Down-Referral pilot, 98 percent of patients were on first-line ART regimens, 2.4 percent were on second-line ART regimens, and no patients were on third-line ART regimens.

TABLE 7. DOWN-REFERRAL MODEL: ART REGIMENS

Regimen	N (percentage)
First-line regimens	242 (97.6)
Second-line regimens	6 (2.4)
Third-line regimens	0
Total (N)	**248**

By design, the Down-Referral model restricted service inclusions to the most basic clinical assessment for renewal of prescriptions every four to six months, an annual blood test, and up to two additional GP visits per year. The $21 consultation fee that RTCHS paid for each referred patient in the Down-Referral model did not cover the costs of primary care or treatment of HIV-

related complications. In the case of complications, abnormal laboratory results, or comorbidities, the patient had to pay a separate consultation fee or return to the public sector for care.

The limited scope of services under the pilot meant that, even for small secondary health issues, GPs had to refer patients back to the public sector for care, provide additional services at a loss, or charge patients a secondary consultation fee. Not surprisingly, patients and GPs were dissatisfied with the Down-Referral model's limited service inclusions. In group interviews, several patients noted the challenges they experienced in having to visit two clinicians for various health concerns and pointed out that they could not afford the additional consultation fees for conditions outside the Down-Referral model's care inclusions.

Patients in the Down-Referral pilot were integrated into RTCHS's call center and case management program. An RTCHS case manager noted that stable patients' participation in the Down-Referral model permitted RTCHS to focus on the relatively straightforward task of largely ensuring medication adherence and providing reminders for prescription renewal.

In terms of patient experiences with laboratory testing, patients in the pilot project were required to return to Thembalethu Clinic every 6 to 12 months. For routine visits, patients receiving care under the Down-Referral model did not have to wait in line, and their laboratory results were posted on Therapy Edge. The NHLS provided the laboratory services for the pilot, but patients did not have access to the depot locations and RTCHS affiliated serology sites dedicated to sample collection that were made available under the DAI and Thusong models.

Group interviews with patients revealed mixed experiences with care under the Down-Referral model. The majority of patients pointed to improvements in quality of care compared with the care they received in the public sector. Employed participants remarked that down-referral made it easier for them to manage their treatment without involving their employers. Both male and female interviewees emphasized that the support provided by RTCHS's case management system was an advantage over public care. However, several patients reported that they had to return to Thembelethu Clinic when their assigned GP failed to keep scheduled appointments. Several patients also reported dissatisfaction with the Down-Referral model's limit on care inclusions. Some patients even said that they were skeptical when first told they would be participating in the Down Referral program. For instance, during a group interview, one patient remarked:

> *I was skeptical as to why they referred us to down referral. Their problem was that they did not explain to the people as to why they were being referred. … If they refer you, they need to explain to you and show you your chart card and the tablets and explain that the ways things are you are taking your tablets correctly or not and we thought that instead of coming here you should go to down referral. Because a person may think that this hospital is abandoning me and they now want to have nothing to do with me … until I asked the doctor to explain why they referred me there.*
>
> – Male patient

In sum, patients reported that they had benefited from the flexibility provided by private GP care but that medication issues, absent doctors, lack of communication, and GPs' coverage limits all posed challenges. The patients interviewed reported that these challenges led to treatment interruption and discontinued care during the referral process. Future iterations of the Down-Referral model should address such matters.

6.3 CONTRACTING ISSUES UNDER THE DOWN-REFERRAL MODEL

Strong institutional and interpersonal relationships facilitated the launch of the Down-Referral model. RTCHS administrators stated that the involvement of high-level leaders at RTC, RTCHS, the Gauteng Provincial Department of Health, and Helen Joseph Hospital was an essential ingredient in launching the pilot. Many of these leaders had already worked with one another for some time and therefore enjoyed a high degree of mutual trust. Finally, the pilot remained at a manageable size: 500 patients, ten GPs, and only one referral facility for the initial two-year period.

The Down-Referral model's institutional arrangement represented a significant departure from the institutional arrangements under the DAI and Thusong models. For the Down-Referral model, RTCHS assumed the pilot's financial risk; it operated within RTC's disbursement of $22.34 to 34.55 per patient per month. Because RTCHS would not be reimbursed beyond their per patient per month rate, RTCHS needed to ensure that all costs associated with managing patient cases stayed within their monthly revenue. In contrast, the DAI and Thusong models had no limited incentives to control cost because RTCHS would be reimbursed for services covered under the models.

In terms of the contractual relationships for laboratory services, the NHLS covered all laboratory services in order to save on costs, and patients were required to visit Thembalethu Clinic for laboratory services. Interviews with RTCHS administrators and public sector GPs showed that, while the laboratory service system worked relatively well during the pilot, it did not decrease patient utilization at the public sector laboratory. Furthermore, the arrangement with the NHLS required patients to travel between several points of care.

With respect to pharmaceuticals, the Gauteng Provincial Department of Health covered the cost of ARVs and other essential HIV medications during the pilot. It then released the medication to RightMed via Helen Joseph Hospital and gave RightMed responsibility for distributing the drugs to RTCHS patients. The transfer of publicly procured ARVs and other essential medications to RTCHS was a point of contention during the design of the pilot.

During the pilot's launch, RTCHS encountered a shortage of the ARVs Tenofovir and Efavirenz because of insufficient public sector forecasting of medication needs. Stable patients were supposed to receive a three-month supply of medication in order to reduce the frequency of medication pick-ups. However, in light of the shortages, patients received only a one- month supply and therefore had to pick up their prescriptions every month. Pharmaceutical supply stockouts—which were common in the public sector—led to lapses in the availability of medication for patients.

In terms of the relationship between GPs and RTCHS, GPs involved in the pilot reported that providing care to patients under the Down-Referral model was straightforward and consumed relatively little time. GP interviewees reported that they accepted the $21 reimbursement rate for consultation because the associated effort generally involved only routine monitoring, basic care, or prescription renewal.

Public sector and GPs who contracted with RTCHS pointed out that several components of the transfer process initially increased the workload on both public and private sector providers as staff members learned how to complete paperwork and manage patient needs through the process. For GPs, the greatest challenges associated with the Down-Referral model were the limited inclusion of services and restrictions on a patient's complications or other health concerns. Their limited role in case management may have deterred GPs from participating in the Down-Referral model as actively as they participated in the DAI and Thusong models. For

instance, several RTCHS case managers reported instances of GPs failing to respond to case managers, failing to use Therapy Edge, failing to send prescriptions in timelines dictated by contracts, and failing to perform blood tests.

In sum, the contractual arrangements in the Down-Referral model were designed to reduce patient volumes at Thembalethu Clinic and to transfer the management of services to RTCHS GPs in order to relieve the burden of care on the public sector. The pilot succeeded in achieving its goal of referring stable patients, but it appears that efforts to place limits on the scope of GPs' service provision, and the model's reliance on the NHLS for pharmaceuticals left patients with no option but to obtain care at several separate locations. Owing to various institutional arrangements, GPs had limited discretion in managing patients and depended on the South African government to manage of the drug supply. From a financing perspective, the Down-Referral model still depended on PEPFAR/USAID to cover the cost of consultations and case management. For the long term, the pilot was designed so that the new NHI scheme could absorb such costs. After the down referral model's pilot term ends, RTCHS and South African government will need to determine the cost-effectiveness of outsourcing of consultations and case management to RTCHS. The evaluation of the pilot should also be used to estimate the budget required for the new NHI scheme to absorb the cost of RTCHS' services.

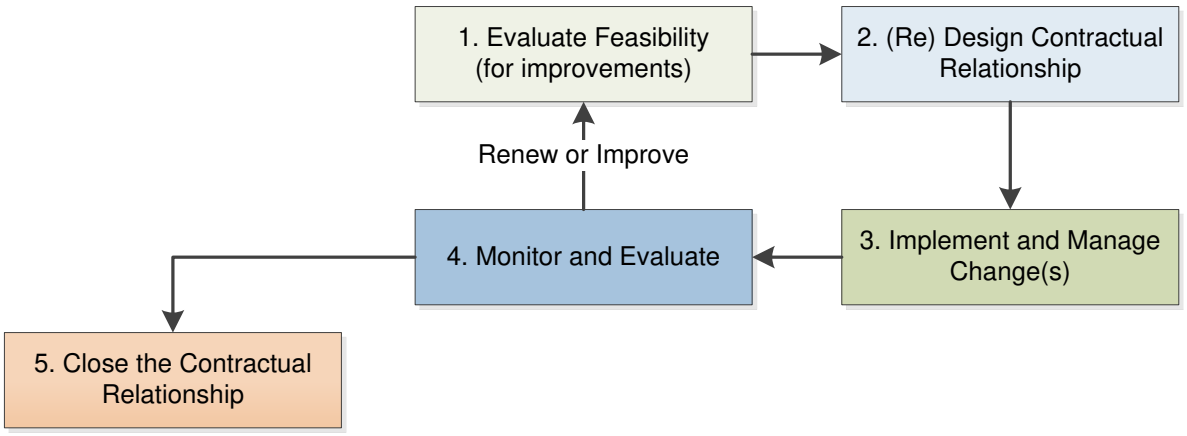
7. HIV AND AIDS SERVICE DELIVERY AND THE CONTRACTING OUT LIFECYCLE FRAMEWORK

This study presents how the South African government contracted RTCHS in order to ease the burden on public health care infrastructure, mobilize private sector personnel and capabilities, and develop interim arrangements to support the PEPFAR transition away from GP networks. This section discusses all three models against the Contracting Out Lifecycle Framework in order to highlight lessons that may be useful for other similar efforts.

7.1 THE CONTRACTING OUT LIFECYCLE FRAMEWORK

The contracting out lifecycle framework organizes the challenges and risks associated with contracting out according to the various stages of a contractual relationship. Presented in Figure 5, SHOPS adapted the framework from the World Bank toolkit on performance-based contracting to simplify and organized the oftentimes complex experience of a contractual relationship.

FIGURE 5. THE CONTRACTING OUT LIFECYCLE FRAMEWORK



Each stage of the framework involves a unique set of considerations for assessing, designing, implementing, improving, and eventually closing a contract. Recounting the three contracting models through this framework can help reveal opportunities for improving future contracts with the private sector for the delivery of HIV and AIDS care and treatment worldwide.

7.2 STAGE ONE: EVALUATE THE FEASIBILITY OF NEW CONTRACTS OR IMPROVEMENTS TO EXISTING CONTRACTS

In the first stage of the framework, key stakeholders should evaluate the feasibility of entering into a contractual arrangement. Purchasers should ask the following questions: What is the ultimate goal of entering into a contract? Are the goals of the various stakeholders involved in the contract aligned? What resources are expected from each stakeholder to finance the services under the contract?

When the purchaser is a government entity or a donor agency, the process of answering these questions usually means consultation with a wide group of stakeholders representing government agencies, private corporations, citizen groups, and NGOs, all of which aim to hold the government or donor accountable. When the purchaser is a private sector corporation, the stakeholders may include regulatory agencies, corporate shareholders, corporate management, business partners, and employees. The models featured in this report involved a range of purchasers with unique goals for contracting with RTCHS.

In the DAI model, purchasers were medical aid schemes and private employers. Just as South Africa was responding to HIV as a national epidemic, medical aid schemes were motivated to offer competitive benefit packages to their clients. To ensure the financial viability of their risk pools, medical aid schemes had a financial incentive to stop the spread of infection and prevent complications among their beneficiaries. Employers had similar motivations but were also interested in preventing losses in workplace productivity due to illness. In general, both medical aid schemes and employers commanded the resources to finance relatively comprehensive service packages. In addition, medical aid schemes and employers were motivated to market their coverage to attract investors and employees and to promote the companies associated with the coverage. In terms of time, the DAI model was designed to operate as long as the demand for services continued.

In the Thusong model, PEPFAR/USAID was the primary purchaser of services. Financed by an international donor, the model focused on reaching the maximum number of people who could not otherwise afford to pay for HIV and AIDS care. To maximize the number of beneficiaries while controlling costs, PEPFAR/USAID limited services to certain formularies. As compared to the DAI model, the Thusong model was designed with different goals.

The Down-Referral model was similar to the Thusong model in its motivation to control costs. However, it differed from the Thusong model in that both PEPFAR/USAID and the South African government were purchasers. The factors contributing to the termination of the Thusong model set the stage for designing the Down-Referral model. The Gauteng Provincial Department of Health entered into the contract for the Down-Referral model with the aim of reducing patient volumes at the overcrowded Thembalethu Clinic. Given that the purchasers had envisioned their financing role as that of a catalyst in the transition to South Africa's new NHI scheme, the contracted-out services were to be limited in scope as compared to those under the more comprehensive coverage offered by the DAI model. The purchasers involved in the Down-Referral model set forth the clear time frame of two years for the pilot.

At this stage, RTCHS as the service provider had to account for its technical capacity to deliver the services demanded by potential purchasers. For example, medical aid schemes and employers demanded a comprehensive reporting system to track beneficiaries' utilization of RTCHS services. In response, RTCHS developed Therapy Edge. Similarly, PEPFAR/USAID-funded programs required their own reporting formats that further required RTCHS to build its reporting capacity.

Stakeholder analyses similar to ones featured in the preceding paragraphs should provide insight into the political, economic, and technical feasibility of entering into a contract. It is important to note that the technical and financial feasibility of how each contract is designed is explored in a deeper level in the second stage. How a contract is designed is continuously influenced by various stakeholder motivations, which is why the design of a contract is an iterative process between assessment (stage one) and design (stage two)

7.3 STAGE TWO: (RE)DESIGN THE CONTRACTUAL RELATIONSHIP

Service definitions should be clearly specified in terms of the following two questions: What is the service covered under the contract? How will the service be delivered with respect to expectations of quality?

In designing a health service delivery contract, purchaser and provider should define the services to be delivered per the contract. Service definitions should be clearly specified in terms of the following two questions: What is the service covered under the contract? How will the service be delivered with respect to expectations of quality?

Given that the DAI model encompassed a wide range of services required for HIV and AIDS care, the contract did not need to define specific services or include a comprehensive list of exclusions. For example, in some cases, the DAI model covered third-line ART. The contract between RTCHS and the purchaser did not include comprehensive language around ART exclusions and therefore allowed GPs considerable freedom to prescribe at will.

In contrast, the services provided under the Down-Referral model were significantly limited. The comprehensive memorandum of understanding among Helen Joseph Hospital, RTCHS, and the Gauteng Provincial Department of Health outlined the protocol for verifying patient eligibility for participation in the pilot (Right to Care, 2011). However, it provided for less specificity in its exclusions of drug types. Such lack of clarity could have been the reason for GPs' confusion during the model's early implementation.

Beyond basic clinical or serological services related to stable HIV care, contracts must define the other non-HIV or non-clinical, value-added services covered by a model. For example, under the DAI model, some medical aid schemes provided services that were classified and itemized as "communication and awareness" services, as shown in Table 8 (Werkmans Attorneys, 2011). As illustrated in Table 8, RTCHS also defined several nonclinical services. In contrast, the payment schedule in Table 5, "Down-Referral Model RTCHS Payment Schedule," listed only three types of service reimbursement rates depending on the number of people in the program. Similar to how capitation payments differ from fee-for-service payments for health care, how services are classified, itemized, and paid for is essential to contract design.

TABLE 8. EXAMPLE OF PAYMENT SCHEDULES INSERTED INTO CONTRACT BETWEEN RTCHS AND MEDICAL AID SCHEME

Right to Care HIV Management Program		
Number of principal members	2,167	
	Cost per Annum	**Estimated Total Cost**
Administration and project management	$1.13	$2,444.88
24-hour call center medical support line	$0.28	$611.22
Data hosting and reporting	$0.08	$168.08
Communication and awareness (all employees)	$0.59	
Doctor's visits per HIV-positive member per annum	$18.80	
Pathology tests per HIV-positive member per annum	$27.03	
Drugs per HIV-positive member per annum	$42.31	
Vitamins, minerals, and supplements	$14.10	
Drug delivery per annum	$14.10	
Face-to-face counseling per session	$7.05	
Adherence incentives	$4.23	
Patient management fee all HIV-positive patients)	$21.15	

Note: The name of the medical aid scheme was omitted for the purpose of confidentiality.

After defining each service, purchaser and provider must negotiate the method of payment. Under the DAI model, employers and medical aid schemes paid RTCHS annually per person per annum. This capitation payment method created incentives for RTCHS to stay within the reimbursement limits to control costs related to delivering care to each patient during the year. In addition to the capitation payment method, some services were paid on a fee-for-service basis such as the face-to-face counseling sessions. In this payment modality, there is a financial incentive to promote such services.[4]

It is important to note that the service definitions governing RTCHS, medical aid schemes, employers, and PEPFAR/USAID (through RTC) differ from the service definitions that RTCHS establishes with its provider GPs and laboratory providers. RTCHS paid GPs and laboratory providers on a fee-for-service basis. GPs may be reimbursed for up to 19 types of consultations, 48 types of diagnostic tests, and 175 types of medications (Right to Care Health Services 2013). Therefore, GPs generally have a financial incentive to prescribe frequently.

Nonetheless, the three models imposed restrictions on GPs with respect to protocols and formularies. In fact, GPs accustomed to the DAI model's comprehensive package of services needed to learn how to administer care under the limits of each program. In general, the design of contracts for HIV and AIDS service delivery must clearly identify contracted-out clinical and nonclinical services. Furthermore, purchasers and providers must consider how payment methods may influence the behaviors of stakeholders involved in the contract.

[4] The evidence from interviews was insufficient to determine if payment modality made a difference in the delivery of service types.

In general, the design of contracts for HIV and AIDS service delivery must clearly identify the contracted-out clinical and non-clinical services. Furthermore, purchasers and providers must consider how payment methods may influence the behaviors of stakeholders involved in the contract.

7.4 STAGE THREE: IMPLEMENT AND MANAGE CHANGE

Social stigma, diverse patient demographics, and the complex nature of HIV and AIDS care influence many of the challenges associated with the implementation of service delivery contracts. Implementation challenges extend to issues that deter stakeholders from abiding by contractual terms. For example, a contract may have failed to define roles and responsibilities explicitly, or stakeholders may have responded to the arrangements with unexpected reservations, as in the case of GPs who were hesitant to participate in the Down-Referral model.

RTCHS administrators report that authoring contracts with GPs did not come into standard practice until 2011. In fact, GPs and RTCHS administrators frequently cited the lack of a standard document as an implementation challenge. Additional complications arose when GPs who had previously treated only DAI patients started treating Thusong patients as well.

To clarify matters for GPs who treated both DAI and Thusong patients, RTCHS drafted a four-page letter outlining the two models' differences in benefit packages and setting clear expectations about payment. The letter included the summary table in Table 9. In the letter, RTCHS stated, "The Thusong Program is paid for by USAID and PEPFAR, and the other programs are funded by private companies. The program requirements of the funders are different, which accounts for the differential rates and benefits" (Right to Care Health Services, 2011).

Open communication and clarity about program operations are essential during contract implementation. For example, GPs' failure to abide by rules and protocols gave RTCHS reason to reject claims. However, if the rejection of claims resulted from a lack of notification on RTCHS's part, then disputes centered on how RTCHS could improve their administration of claims. For example, in the four-page letter noted above, RTCHS committed to pay all previously rejected claims from October 1, 2010, to July 30, 2011, thereby ensuring GPs' satisfaction with the operation of the DAI model.

Social stigma, diverse patient demographics, and the complex nature of HIV and AIDS care influence many of the challenges associated with the implementation of service delivery contracts.

TABLE 9. SUMMARY TABLE OF DAI AND THUSONG MODELS FROM LETTERS SENT TO GPS

	DAI Model	Thusong Model
Service Provider	Any GP or Specialist	Only Doctors that are registered as Thusong Doctors with RTCHS
Eligibility	Patient's employer registered with RTCHS to provide benefits to employees	Indigent patients that live in areas where access to treatment is limited
HIV Testing	Rapid test performed at employer site, doctor, or laboratory	Not paid for
Initial CD4 Count	Allowed	Allowed
Doctor's Visits	4 visits in the first year (1 initial, 3 follow-up visits annually	As per Thusong protocol
Doctor's Fees	R600 first visit, R400 thereafter of applicable medical aid rates	R260 first visit, R220 thereafter
Laboratory Tests	Preferred Laboratory Toga, Lancet or Pathcare. By prior authorization	Preferred Laboratory Toga. By prior authorization
Drugs	Vitamins, minerals, additives, prevention of opportunistic infections & ARVs as indicated	Vitamins, minerals, additives when CD4 >350; ARVs when CD4 <350; prevention of opportunistic infection (as per Thusong protocol)
Participation in Program	Call ********** for more information	Call ********** for more information

The Down-Referral model is an effort to apply earlier lessons learned and to improve the transition between private and public sector provision of HIV and AIDS care. The pilot's design limited care to only the most basic consultations and the renewal of ART. It provided the Provincial Department of Health and Helen Joseph Hospital with the control they needed, particularly in terms of ARV drug management and uncomplicated GP care planning. Yet, the limit on inclusions created several challenges for down-referred patients at the point of care. The limited scope of care, small patient volumes, and low consultation fee of $21 meant that GPs were prevented from providing any care beyond the renewal of medications. For even the most minor of additional patient concerns, the patient had to pay—but was sometimes unable to pay—an additional consultation fee to be transferred back to public care.

In sum, many challenges do not surface until full implementation of a contract. Thus, stakeholders entering into contracts for HIV and AIDS service delivery must closely monitor a program's progress and respond immediately to implementation challenges.

7.5 STAGE FOUR: MONITOR AND EVALUATE THE PROGRAM

Monitoring refers to the ongoing collection and interpretation of data to measure if and how well a contract is achieving its goals. Evaluation refers to a comprehensive assessment that measures whether the desired impact of entering into the contractual relationship was ultimately realized. For service delivery agreements, contracts should explicitly define program goals and describe how monitoring and evaluation will measure progress in meeting those goals.

The DAI program relied on discussions with each medical aid scheme or employer to define the goals underlying each contract with RTCHS. While some contracts defined goals in purely transactional terms, other contracts set goals to improve health outcomes. The type of monitoring reports required by RTCHS corresponded to the goals stated in the contract. For

example, the goal of one contract with a medical aid scheme was described as a simple transactional relationship whereby a company appoints “Right to Care for the provision of employee HIV and AIDS workplace program” (Telkom SA Ltd., 2011). The contract further laid out relatively vague reporting requirements such as cost management analysis; actuarial and absenteeism management reports; and monthly company reports indicating stages of disease progression, age, gender, job profile–specific data, and counseling uptake (Telkom SA Ltd., 2011).

In contrast, another contract described the objective as aspirational:

> *To educate, counsel, test and treat, where necessary, Members in order to manage the effect of HIV/AIDS on [employers] and to improve the quality of life of Members suffering from AIDS; to educate, counsel, and test Members in order to manage the effect of additional health problems impacting [the employer] (Werkmans Attorneys, 2011).*

As presented in Table 10, the same contract also specified highly detailed reporting requirements but did not call for the development of indicators measuring the achievement of contract goals. More specifically, the indicators in Table 10 help stakeholders measure progress related to program enrollment, testing, and treatment, but they do not assess the program’s delivery of patient education and the program’s response to other health problems affecting employers. Measuring those impacts might require an in-depth evaluation of how the program determines the need for and delivers other health services.

It is important to note that monitoring and evaluation has cost implications. Donor agencies’ and public institutions’ explicit public health goals may require comprehensive reporting on health impact. A contract’s goals and indicators should match the budget available for collecting and analyzing needed information.

It is important to note that monitoring and evaluation has cost implications. Donor agencies’ and public institutions’ explicit public health goals may require comprehensive reporting on health impact. A contract’s goals and indicators should match the budget available for collecting and analyzing needed information.

TABLE 10. EXAMPLE OF RTCHS INDICATORS REQUIREMENTS DOCUMENTED IN CONTRACT

Example of RTCHS Reporting Requirements
1. Number of members in care—split by principal, adult dependents, and children
2. Number of members on highly active antiretroviral therapy (HAART)
3. Number of members on pre-HAART
4. Number of members on PMTCT
5. Number of members on post-exposure prophylaxis (PEP)
6. Number of children followed up after PMTCT and outcomes
7. Number of members with current CD4 count below 250
8. Number of members with undetectable viral load
9. Number of members on first-line ARVs
10. Number of members on second-line ARVs
11. Number of members stopping ARVs
12. Number of members treated with Isoniazid preventive therapy (IPT)
13. Number of members tested for HIV
14. Number of members tested for HIV and the number positive
15. Number of new registrations
16. Number of terminations

With regard to the Thusong model, PEPFAR/USAID requires its own set of indicators that help hold donors accountable. RTCHS administrators noted that the indicators guided management planning (such as forecasting drug supplies). With respect to the Down-Referral model, the memorandum of understanding's monitoring and evaluation section standardized reports drawn from Therapy Edge and reporting templates required by the provincial government. The memorandum of understanding did not specify the indicators required for monitoring and how evaluations would measure sustainability goals. The memorandum of understanding limited evaluations to a biannual quality survey that measured patient satisfaction. The lack of specificity in the monitoring and evaluation sections of the memorandum of understanding presents a risk to the stakeholders implementing the pilot.

Monitoring and evaluation activities may generate recommendations for contract changes. If so, the contracting out process would cycle back to stage one to assess the feasibility of implementing the recommended changes and then continue onto design and implementation.

7.6 STAGE FIVE: TERMINATION OR CLOSURE OF A CONTRACT

Termination or closure of a contract is the last stage of the contracting out lifecycle. Termination refers to the end of a contract before the parties to the contract fully conduct their specified functions. Closure of a contract refers to the natural end of the contractual relationship per the period designated in the contract. The contract should explicitly describe the protocols for termination and closure in order to prevent any miscommunication.

Contracts with medical aid schemes and employers under the DAI program ran for an initial period of one year. After that period, the purchaser and RTCHS had the option of extending the contract indefinitely, subject to each party's reserving the right to terminate the agreement at any time with a 90-day notice period. The Down-Referral model specified a two-year period of operation. The closure dates allowed the parties to revisit the purpose of the contract and use the data collected as part of their monitoring and evaluation activities to decide whether to renew the contract. As in some cases in the DAI program, some employers and medical aid

schemes under the Down-Referral model had to weigh the cost of coverage against other management priorities, leading to the closure of some contracts after the initial period.

The Thusong model began operating during the "emergency response" era of South Africa's AIDS epidemic, when the humanitarian imperative to initiate treatment outweighed sustainability considerations. As the planned PEPFAR transition began and programs such as Thusong moved toward phase-out, donors expected that the South African government would make investments wholly or partly equivalent to PEPFAR's investments in order to sustain the Thusong model's capacity and services. Such a transition did not occur.

Termination refers to the end of a contract before the parties to the contract fully conduct their specified functions. Closure of a contract refers to the natural end of the contractual relationship per the period designated in the contract. The contract should explicitly describe the protocols for termination and closure in order to prevent any miscommunication.

As a result, Thusong patients had to be transferred back to public care. The South African government's decision not to fund existing contracting out networks proved difficult for the public facilities receiving the former Thusong patients. Yet, the government's decision also meant that the National Department of Health and the Gauteng Provincial Department of Health had an opportunity to design a contracting out approach under the new NHI program that would build on the lessons of Thusong and other PEPFAR-funded networks.

The Down-Referral model maintained the subsidized portion of the model to a bare minimum; however, as described, the model comes with its own challenges. As the Down-Referral model approaches closure in 2015, a rigorous evaluation should determine if the model is scalable beyond the initial 500 patients. At this time, the parties to the Down-Referral model should consider the well-being of the 500 patients, the feasibility of scaling up the scheme, recommendations for redesigning the scheme, or replacement of the model with a different approach. Regardless of the option, the impending closure of any contract requires collaborative planning with RTCHS, donors, and the South African government.

7.7 LESSONS LEARNED

From an administrative perspective, contracting out for HIV care is particularly challenging. In their many possible forms, contract terms require highly specified service definitions. Moreover, the care of HIV and AIDS patients often involves the treatment of opportunistic infections and changing clinical needs, and must account for a patient's lifestyle, socioeconomic status, and other health determinants. In addition, patients' conditions change as patients live with the disease.

In the Down-Referral model, patients deemed "stable" must have presented with limited or no complications and must generally have assumed control of their own treatment. Anything outside these criteria could have complicated the public sector's control of treatment costs, budgeting for ARVs and diagnostics, and other costs of contracted-out care. In short, the variability in HIV treatment plans makes it difficult for governments to refer all HIV patients into private care.

Even when contracts specify referral for a group of ART patients likely to remain stable, the contracts must somehow address the scope of services for patients' other health concerns. Most patients who were receiving public care and were later referred to private care would have been unable to pay for additional consultations with a private provider. Thus, these patients

eventually had to return to the public sector's health care system for most of their primary health care concerns (i.e. non-HIV concerns). Down-referring for HIV care only does little to reduce the burden on the public sector if private GPs are unable to treat the patients total health concerns.

It is not easy to formalize contracts that include a tiered or highly specific schedule of services that account for several patient outcomes, but such contracts would allow private GPs to provide a broader range of services. Furthermore, the increased specificity of a service schedule could help governments institute cost control mechanisms based on service limits. On the other hand, a comprehensively defined basket of services typically increases a scheme's administrative costs by complicating claim settlements. However, as RTCHS demonstrated, an integrated management information system such as Therapy Edge can expedite the processing of fairly complex claims.

Contracting out requires sustainable financing. As South Africa moves toward a country-owned AIDS response, it will face a significant challenge in its shift away from programs currently reliant on donor funding.

Contracting out requires sustainable financing.

With PEPFAR's phase-out of funding for the Down-Referral model, the model's sustainability will depend on the public sector's absorption of private consultation costs under the new NHI scheme or other source(s). Yet, the pilot's transition to sustainable public financing is not guaranteed, and RTCHS has started to explore patient out-of-pocket payments to cover the $21 consultation fee. The requirement for such out-of-pocket payments could, however, limit the number of patients currently in public care to afford the fee. This would erode the South African government's vision of contracting out as a way to ensure free services at the point of care.

In addition, major questions remain as to whether the South African government has the capacity to monitor contracts and regulate private sector service provision—-either through an intermediary or otherwise. Does the South African government have the systems in place to ensure that public funds provide for the services specified in the contract? Do RTCHS and other intermediaries provide cost and capacity savings for the health system as a whole? Do they increase costs? Such questions about sustainability and value for money are beyond the scope of this paper, although further research on the costs and capacity required to develop and maintain contracts for HIV care can help provide needed insights.

8. CONCLUSION

This study demonstrates that, with appropriate controls and planning, contracting out to private sector providers can significantly increase access to HIV and AIDS services. The services come at a cost, and purchasers must evaluate costs against competing priorities. For RTCHS, the study details the following:

1. How purchasers defined their goals
2. How those goals influenced the design of the contracts under each model
3. Lessons learned for improving future contracting out agreements for HIV and AIDS service delivery in accordance with the contracting out lifecycle framework

The findings of the study demonstrate that various purchasers (ranging from medical aid schemes to employers, the national government, international aid agencies, and provincial government) and the provider (RTCHS) set the goals for each contract. The clarity with which they set forth those goals and communicated them to all affected parties determined the design of payment modalities, service definitions, formularies, and protocols. In addition, for provider, intermediary, pharmacy, laboratory, and other stakeholder groups involved in care, Therapy Edge significantly improved the management of patients' medical care. In practice, this could be possible for purchasers to utilize contracts with providers for targeted support for care and treatment services. For example, PEPFAR and the South African government could utilize contracts to support increased adherence and retention, essential to protecting PEPFAR's investment through the transition. Another possibility is to utilize contracting to increase ART enrollment capacity throughout health facilities as ART treatment eligibility guidelines evolve.

Perhaps the most significant lesson to be drawn from the RTCHS experience relates to sustained HIV/AIDS services delivery and related costs. The study determines that private sector institutions such as RTCHS command the technical capacity to deliver HIV and AIDS services at a broad scale. However, reliance on public funds to purchase private care will require the South African government to mobilize more resources to ensure delivery of the high-quality care available under model types such as the Thusong or Down-Referral models, or even the DAI model. The three models involve different levels of private sector responsibility and engagement depending on the budget available to compensate health care providers for services rendered. In order to protect PEPFAR's investment, it is essential that adherence and retention are closely supported and monitored. It will be critical to understand how retention and adherence are impacted in each of the three models.

To mitigate challenges with the PEPFAR transition, the Thusong program, donor subsidies for HIV treatment must clearly specify the processes required for phasing out and transitioning patients from the outset. Moreover, subsidies should be set at rates that a country may reasonably assume if a national government is eventually to take on increasing financial responsibility for HIV and AIDS programs. Carefully considered subsidy amounts for HIV and AIDS service delivery can alleviate pressures on recipient governments as they budget for resources required to finance HIV and AIDS treatment, and ensure that PEPFAR's investment in Achieving an AIDS Free Generation is protected.

The South African government must weigh the costs and benefits of purchasing private HIV and AIDS services, relieving overcrowded public institutions, and ensuring the well-being of people living with HIV. Identifying the budget required to finance HIV and AIDS care is necessary political process that will require South Africa to reconcile the costs robust and quality HIV and AIDS care with competing priorities. Donor agencies may assist by supporting studies such as the present one and pilot projects with detailed monitoring and patient tracking, thereby generating evidence on best practices and optimal adherence and retention strategies. Such information is useful for defining policy proposals and catalyzing the political momentum needed to execute strategies that cost effectively increase access to essential health services.

As other countries interested in contracting look to the RTCHS and South Africa example for guidance, policymakers and representatives from the private sector should carefully and comprehensively consider the design their contracts. Contract goals should align with payment structures. Payment structures should be based on efficient business processes, systems, and incentivize quality care. Budgets and timelines should be coordinated and well-communicated. Following these simple lessons should assist others in executing strong contracts that capitalize on the experience in South Africa.

ANNEX: DETAILED RESEARCH METHODOLOGY

DATA COLLECTION TRAINING

In October 2012, an Abt Associates staff member coordinated the training of the local research team (comprised of four HDA staff members) in data collection. The topics in the Johannesburg-based training included the study protocol, the informed consent process, qualitative data collection, and data management (e.g., de-identification of data, quality assurance, data transfer, and so forth). The training emphasized participant recruitment; how to conduct qualitative semi structured interviews; and how to moderate focus groups (patient focus groups were part of the original evaluation design).

INFORMED CONSENT PROCESS

All data collectors were trained to administer informed consent and to ensure that participants understood the parameters of the study and their participation in it. Data collectors provided participants with informed consent forms and obtained informed consent for all stakeholder and patient interviews.

DATA SECURITY

Abt Associates Inc. is committed to protecting the confidentiality and integrity of data and took several measures to safeguard data. The local research team stripped all personally identifiable information from interview transcripts before releasing the transcripts to Abt Associates. In addition, RTCHS staff stripped all personally identifiable information from electronic medical records and formatted it into a Microsoft Excel database. The local research team used end-to-end encryption to transfer the transcripts and the patient medical records database to Abt. All data were securely stored in access-restricted folders, with access limited to Abt staff working on the evaluation.

STAKEHOLDER INTERVIEWS

The local research team conducted a series of semi-structured interviews with a variety of stakeholders in order to increase our understanding of the motivations for and conceptualization, financing, operation, and implementation of RTCHS's contracting out models for HIV and AIDS care and treatment. Between October 2012 and January 2013, the local research team conducted interviews (in English) in Johannesburg, Pretoria, and surrounding areas.

A purposeful sampling strategy ensured the selection of stakeholders who could provide a rich and diverse perspective on contracting out HIV and AIDS services. The sampling strategy, developed in collaboration with RTCHS, targeted policymakers from the National Department of Health and the Gauteng Provincial Department of Health as well as USAID/PEPFAR representatives, RTCHS administrators, RTCHS clinical/operational staff (pharmacists, clinical

leaders and/or support staff), RTCHS case managers, and RTCHS-affiliated GPs active in the Gauteng Province catchment area.

The local research team recruited stakeholders for interviews and then conducted stakeholder interviews. Using a standard invitation script, members of the local research team contacted potential stakeholder participants by telephone. Two interviewers and one note-taker conducted face-to-face interviews. Several stakeholders were unreachable or refused the interview because of scheduling conflicts. Sixty-nine percent of the minimum target sample agreed to participate, with some variation within groups. The minimum target sample was achieved for RTCHS administrators (N = 3) and RTCHS clinical/operational staff (N = 6). On the other hand, the minimum target sample was not achieved for case managers (N = 4), policymakers (N = 5), and GPs (N = 6). Table 11 provides an overview of our target sample (minimum and maximum) for each group and the number of stakeholders interviewed.

TABLE 11. SAMPLING STRATEGY FOR STAKEHOLDER INTERVIEWS

Stakeholder Type	Target Sample	Number of Participants Interviewed
Policymakers	7–10	5
RTCHS administrators	3–5	3
RTCHS clinical/operational staff	5–7	6
RTCHS case managers	10–12	4
GPs	10–12	6
Total Stakeholder Participants	**35–46**	**24**

PATIENT INTERVIEWS

The purpose of patient interviews was to examine and document the patient experience in accessing and receiving care under each model. A stratified random sampling strategy was used to select participants. First, the RTCHS patient database was divided by treatment model (DAI, Thusong, and Down-Referral); then, the database was divided by gender and by those receiving PMTCT care. The process yielded eight mutually exclusive subgroups: female patients receiving HIV and ART services and male patients receiving HIV and ART services enrolled in each of the three models and female patients who received PMTCT care under the Thusong and DAI models. Participation from patients was low, however.

The local research team conducted interviews in Rivonia and Braamfontein. Overall, 21 percent of potential participants selected for interviews were unreachable by telephone; of those who were reached, 60 percent agreed to participate, and 40 percent refused. Of the patients who expressed interest in participating, 33 percent were interviewed. As a result, the data collection strategy was modified from focus groups to individual or group interviews to accommodate the smaller number of recruits. Face-to-face patient interviews were conducted in English, Zulu, and Sotho between February and April 2013. A total of 24 patients were interviewed: 8 for the DAI model, 8 for the Thusong model, and 7 for the Down-Referral model, as noted in Table 12.

TABLE 12. SAMPLING STRATEGY FOR PATIENT INTERVIEWS

Treatment Group	Data Collection Mode	Target Sample	Number of Participants
DAI Model			
Female—ARV/ART care	Group interview	8–12	4
Female—PMTCT care	Individual interview	8–12	1
Female—PMTCT care	Group interview	8–12	2
Male—ARV/ART care	Individual interview	8–12	1
Total number of model participants			8
Thusong Model			
Female—ARV/ART care	Group interview	8–12	3
Female—PMTCT care	Individual interview	8–12	1
Female—PMTCT care	Group interview	8–12	3
Male—ARV/ART care	Individual interview	8-12	1
Total number of model participants			8
Down-Referral Model			
Female—ARV/ART care	Group interview	8–12	4
Male—ARV/ART care	Group interview	8–12	3
Total number of model participants			7

NOTE: PMTCT patients belonged only to the DAI and Thusong models. PMTCT patients were not eligible for the Down-Referral model because they did not fit the model's criteria for"stable patients.

PATIENT MEDICAL RECORDS

Patient electronic medical records were abstracted from RTCHS's Therapy Edge to develop the profile of treated patients and to describe the general outcomes of patients under each model. RTCHS staff de-identified patient medical records by creating a separate data set of all patients enrolled in the three models (excluding children's records). Abstracted variables included the following: demographics (age, gender, ethnicity, and region of residence); clinical history (ART treatment regimens, CD4 counts, viral loads, and medical conditions); and the case management log of patient calls.

RTCHS abstracted a total 1,336 records: 910 records for the DAI model; 161 records for the Thusong model; and 265 records for the Down-Referral model. Several variables were excluded from analysis because of a lack of accuracy or because the variables were not collected as part of the Therapy Edge protocol. For instance, patient adherence to ART (often measured as percent adherence) was unavailable; it is not required to be entered into Therapy Edge. As such, it was impossible to obtain an accurate count of the number of patients no longer on ART treatment (known as defaulters). If the date of the patient's appointment did not correspond to the appointment data recorded in Therapy Edge, then Therapy Edge classifies a patient as a defaulter. If prescriptions listed in Therapy Edge expired without renewal; and if a GP stopped ART treatment because of low adherence (a true defaulter). In addition, the analysis excluded the variable for a patient's clinical stage—the World Health Organization's clinical staging and

case definition of HIV for resource-constrained settings—as it was unclear whether the variable measured clinical stage at the time of enrollment or current clinical stage.

LITERATURE REVIEW

To guide the evaluation design, Abt staff reviewed published and grey literature. Researchers examined literature that addressed South Africa's political and economic environment, the condition of health systems in South Africa, and the implementation of contracting out models for family planning and disease in South Africa and other countries. Content was the criterion for discerning the relevance of a particular article or report; that is, to what degree did each article enrich Abt's understanding of contracting out models for HIV care. In the end, 18 peer-reviewed articles and 6 reports guided the evaluation design.

During the course of the evaluation, Abt staff conducted an additional review of the literature (in particular, reports and grey literature obtained during data collection) to triangulate data collected through stakeholder and patient interviews. The additional review included 20 peer-reviewed articles and 7 grey literature or media sources.

DATA COLLECTION INTERVIEW GUIDES

STAKEHOLDER INTERVIEW GUIDES

Four semi structured stakeholder interview guides were developed according to stakeholder type (see Annex). The interview guides were developed and administered in English and were reviewed and pretested in collaboration with the local research team; the pretests revealed the need for minor rephrasing of questions. The major categories of stakeholder questions asked during interviews follow:

RTCHS administrative, management, and operational interviews

- Political context of contracting out HIV care
- Implementation of contracting out mechanisms for care
- Details of contracts between government and RTCHS for each model
- Challenges in implementing each model

RTCHS case manager interviews

- Challenges in implementing each model
- Differences in patients treated under each model

RTCHS GP interviews

- Process of care through contracting out HIV care and services
- GP participation in contracting out HIV care and services
- GP perceptions of contracting out HIV care and services

PATIENT INTERVIEWS

Three semi structured patient interview guides were developed in English and translated into Sotho and Zulu. Interview guides were reviewed and pretested in collaboration with the local research team. The pretest revealed the need for minor rephrasing of questions. Patient

interview guides were organized by treatment model (DAI, Thusong, or Down-Referral) and type of patient participant. The categories of questions included the following:

- Process of initiating and accessing ongoing HIV care and services through RTCHS (or other experiences)
- Overall satisfaction with care received
- Relationship with GP and RTCHS case manager
- Challenges faced by patients in seeking and receiving treatment
- Comparison of care provided by other private providers and/or the public sector (where applicable)

DATA TRANSCRIPTION AND TRANSLATION

HR Elements (a South African firm) carried out the transcription and translation of all interviews. First, audio files were uploaded onto the HR Elements secure portal. Upon receipt of the transcripts from HR Elements, HDA staff performed quality assurance of all transcripts: two HDA staff conducted quality assurance for interviews conducted in Zulu and Sotho; two other HDA staff performed quality assurance for interviews that did not require translation; and one staff member used interview notes and an audio file to perform quality assurance of all transcripts.

QUALITATIVE DATA ANALYSIS

Using the NVivo 10, Abt staff analyzed the interview data for key themes and relationships between themes and across subgroups. We developed the initial codebook in conjunction with the interview guides and research questions. Two analysts coded two transcripts according to the initial codebook and then revised the codebook by using an inductive coding process to identify new themes and establish intercoder reliability. Analysts recoded the same transcripts by using the revised codebook, reaching an overall kappa of $\geq$.60. Afterward, transcripts were divided for coding between the two analysts. Areas of coding included stakeholder groups, respondent characteristics, and primary research questions, as noted in Table 13.

TABLE 13. RESEARCH QUESTIONS AND MAIN THEMES

Research Question	Theme
What are the motivations of the South African government, private employers, PEPFAR, RTCHS, and contracted GPs in initiating and participating in the three models of HIV care?	Policy environment Role of NGOs and donor funding Role of private sector Role of Ministry of Health
How do the three models function in terms of financing and operations?	RCTHS operations Administration Financing Process of care
What were the major challenges and opportunities experienced by stakeholders in implementing the three models? What are the perceived barriers to expanding and/or replicating the models?	Barriers to model Facilitators of model Process of care Strengths of RTCHS Weaknesses of RTCHS
What are the profiles of patients who received care under each model?	Patient profile

What do key stakeholders see as the strengths/weaknesses of each model? How might the patient experience be improved under each model?	Strengths of model Weaknesses of model Patient experience with care Patient facilitators Patient barriers
What are the major factors for consideration in the replication of contracting out models as part of country-owned national AIDS responses in similar settings?	Replication perspectives Recommendations

QUANTITATIVE DATA ANALYSIS

For each model, we analyzed the data abstracted from electronic medical records to characterize the patient population and RCTHS's case management. We performed separate descriptive analyses for each models, summarizing patient characteristics, clinical history (i.e., ART treatment regimens and CD4 count), and RTCHS's case management. We calculated means, standard deviations, and proportions by using SPSS 19. Given the potential differences in the types of patients treated under the models, we made no attempt to estimate the effectiveness of any treatment model or to compare models in terms of outcomes or clinical effectiveness. We did not perform any statistical tests of significance to compare the models.

We conducted the following univariate analyses of quantitative data:

Patient demographic characteristics

- Patients' age, gender, ethnicity, and region of residence

Patient clinical history

- ART regimens: Proportion of patients on first-line, second-line, and third-line regimens

RTCHS case management calls

- Proportion of calls made by case managers to patients within three- and six-month periods in 2012

DATA LIMITATIONS

Even though the local research team made repeated attempts to recruit interviewees, it was unable to reach several key stakeholders; in other cases, stakeholders refused to participate. Thus, the local research team was unable to recruit the desired number of representatives from the National Department of Health and the Gauteng Provincial Department of Health, Helen Joseph Hospital, and RTCHS GPs (particularly those under the DAI model). Therefore, our policy analysis relies on the responses of a limited number MOH staff and representatives of the Gauteng Provincial Department of Health. Moreover, we lacked sufficient data to analyze GPs' perspective on and experience under the DAI model.

As part of PEPFAR's transition and organizational change, RTCHS retrenched several operational personnel in December 2012 (particularly RTCHS case managers). As a result, the local research team was able to interview only four RTCHS case managers. The retrenchment also affected a planned patient survey. RTCHS case managers were to have supported the local research team in administering the patient survey, which would have permitted the development of patient profiles for each model. After retrenchment, Abt placed more emphasis on the key informant interviews to explore the patient profiles associated with each model.

Recruitment of patient participants proved difficult. The study's original intent was to conduct focus groups with 8 to 12 patient participants under each treatment model. However, given the

low turnout for the focus groups, the data collection strategy was modified to focus on individual and group interviews with patients. As a result, we were unable to perform in-depth comparisons of patterns of patient experience. For instance, even though we interviewed 8 patients under the DAI model, the sample included only one male. We analyzed patient experiences in the context of the model but were unable to make reliable comparisons among DAI subgroups such as DAI male patients versus DAI female patients and comparisons across subgroups such as DAI male patients versus down referral patients.

Further, quantitative analysis of medical records was limited by the lack of specificity of certain variables or Therapy Edge's collection of only certain variables of interest such as percentage adherence. Consequently, clinical histories in patient profiles focused only on ART regimens. In addition, stakeholder interviews revealed that Therapy Edge was lagging in its medical record updates, potentially affecting the analysis of certain variables and medical records.

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