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ENGAGING PRIVATE PROVIDERS IN HIV CARE AND TREATMENT

LESSONS FROM THE BROADREACH DOWN REFERRAL MODEL IN NORTH WEST PROVINCE, SOUTH AFRICA

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DISCLAIMER

The author's 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

ART	Antiretroviral therapy
ARV	Antiretroviral
BRHC	BroadReach Healthcare
DOH	Department of health
GP	General Practitioner
HMIS	Health management information system
ICER	Incremental cost-effectiveness ratio
K.O.S.H.M.E.D.	Independent Practitioners Association (private GP network) of Klerksdorp, Orkney, Stilfontein and Hartebeesfontein; North West Province, South Africa
MAIPA	Mafikeng Independent Practitioners Association (private GP network); North West Province, South Africa
NHI	National health insurance
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHC	Primary health care clinics
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission
USAID	United States Agency for International Development
WHO	World Health Organization

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I. INTRODUCTION

I.1 HIV AND AIDS IN SOUTH AFRICA

Despite significant progress over the past decade in extending access to HIV prevention, testing, and treatment services, South Africa continues to face one of the world's most severe HIV epidemics. South Africa confronts an adult (15–49 years) HIV prevalence rate of 17.8 percent (the world's fourth-highest rate) and had an estimated 5.6 million people living with AIDS in 2009 (the highest national absolute number worldwide). In 2014, the negative impacts of South Africa's HIV epidemic continue to reverberate throughout the national health system and society as a whole. Beginning in 2002, and following a significant policy delay in mounting a national response to HIV, the South African government began implementing several major policies aimed at expanding access, availability, and uptake of HIV testing and treatment services. The landmark Pretoria high court decision of 2002 that made the antiretroviral (ARV) drug Nevirapine available for the prevention of mother-to-child transmission (PMTCT); the 2003 operational plan on comprehensive HIV and AIDS care, management, and treatment for South Africa committing to the provision of antiretroviral therapy (ART) as part of a strong continuum of AIDS care; and more recent government policy and campaign initiatives such as the 2010 national HIV counseling and testing campaign (Motsoaledi, 2010) have all driven improvements in mounting a more effective national HIV response. Government-initiated scale-up of public sector ART services has contributed to approximately 1.4 million South Africans receiving treatment by the end of 2011 (Republic of South Africa, 2012), representing a national ART coverage of 52 percent based on the revised South African and World Health Organization ART eligibility criteria of CD4<350 cells/mm³ (Johnson, 2012). In addition, strong civil society advocacy and government-initiated PMTCT programs have reduced the national mother-to-child transmission rate to less than 4 percent as of 2011 (Goga et al., 2012). Despite this progress, significant challenges remain in meeting the acute treatment and long-term chronic care needs of HIV-infected South Africans.

South Africa's North West province—a largely rural and peri-urban setting where adult HIV prevalence is roughly equal to the national rate at 17.7 percent—is in a number of ways symbolic of the HIV challenge facing South Africa as a whole (Johnson et al. 2010). As in many South African communities, high rates of poverty, transportation barriers, and an overburdened public health system pose significant barriers in improving both access to and delivery of HIV services. North West province has seen a steady increase in the number of patients requiring HIV treatment since the delivery of ART first began in April 2004 (Pretoria Department of Health, 2008). As early as 2005, the North West Department of Health (DOH) began acknowledging constraints on the capacity of government health services (such as the Wellness Clinic at Tshepong Hospital in Klerksdorp/Matlosana sub-district) to meet public demand for ART services. Although nearly 30,000 people living with HIV (PLHIV) in North West province were initiated on ART by 2007 (UNAIDS, 2010), this represented a provincial ART coverage¹ of only 35 percent. Constraints on public sector capacity to meet ART demand were further compounded by the 2009 revision of South Africa's ART eligibility criteria from a CD4 threshold of 200 cells/mm³ to 350 cells/mm³, significantly increasing the number of ART eligible patients awaiting treatment initiation and enrollment in chronic care services. Increasing eligibility and

¹ The number of patients receiving ART divided by the number requiring treatment

the subsequent rise in public demand for ART enrollment, paralleled by a slowing ART enrollment ratio² in North West province (Johnson and Boule, 2011)—a possible indication of saturated enrollment capacity and overcrowding in public sector services—led the North West DOH and national health authorities to pursue new modalities in expanding access to and availability of ART services.

Addressing the dual challenge of meeting demand for ART initiation while ensuring the health system can cope long-term with ART maintenance and chronic care needs of PLHIV poses significant challenges. Increasingly, governments confronting these constraints in similar settings are looking to the

Contracting Out for Clinical Services:

Refers here to an agreement generally involving two parties; the purchaser providing the financing and the provider delivering the services.

private health sector to relieve constrained public services and extend the availability of essential health services. While national health policy clearly outlines a role for the private health sector in increasing access to HIV treatment, care, and support (National Department of Health, 2007), challenges remain in designing and operationalizing specific mechanisms of private health sector engagement. Contracting-out HIV and AIDS service delivery to private providers is one such mechanism gaining traction in South Africa and other high HIV-burden settings. For governments seeking to rapidly increase the availability of essential health services (such as HIV testing and ART care) the development of a purchasing relationship with the established private health sector provides an attractive option to rapidly enhance health system capacities. In SA, government and societal concerns about the private health sector's historical contributions to the country's health inequities have complicated efforts to engage the private health sector in the HIV response. In this context, models promoting the contracting out of HIV or ART service delivery, where national and provincial health authorities retain their regulatory and oversight role while leveraging existing health service resources in the private health sector, present a strong opportunity to engage South Africa's private health sector in strengthening the national HIV response.

South Africa's primary health care (PHC) reengineering program (initiated around 2008) in fact encourages the government and international donor partners to purchase services and/or contract with SA's established private health providers. Specifically, the PHC re-engineering program encourages District Health Management Teams (DHMTs) to purchase specific private sector services in order to fill essential service gaps and in areas where the public sector lacks HIV and AIDS expertise (Rispel et al., 2010). Down-referral, as explored in this paper, can operate as part of a purchasing or contracting arrangement, or as part of less formal agreements such as MOUs (as in the case of BRHC). The release of South Africa's green paper on national health insurance (NHI) in August 2011 and ongoing primary health care (PHC) re-engineering efforts continue to invigorate debates on the potential role of contracting out and other mechanisms to maximize private sector contributions in strengthening South Africa's future health system. This paper explores clinical down referral as a component of that effort.

² A longitudinal ratio measurement of ART initiation to HIV disease progression—the numerator is the number of people enrolled on ART in a given year and the denominator is the number of people becoming eligible for ART in the same year. The enrollment ratio is increasingly being seen as a more useful indicator of recent program performance in ART enrolment over time, rather than cumulative ART coverage.

I.2 DOWN REFERRAL IN NORTH WEST PROVINCE

Matlosana, the second most populous local municipality in North West province, has historically been one of South Africa's most heavily HIV-affected regions. In 2004, as ART rollout was successfully launched in the public health sector, provincial health authorities quickly grew concerned with overcrowding and increasing patient volumes at public sector HIV services. High patient volumes and limits on human resource capacity began constraining public sector ART initiation, and led to overcrowding of public sector services trying to meet demand for both new ART initiations and long-term ART maintenance. To address this challenge and increase efficiency in resource allocation, provincial health authorities began considering opportunities for down referral and contracting out of ART services. Down referral in

this context refers to the process of shifting the delivery of ART for stable patients from hospitals to lower-level health facilities for routine care, allowing hospital staff to focus on initiating new ART-eligible patients and managing complicated cases. Typically, down referrals place patients in the care of primary health care clinics (PHCs) within the public health system. However, due to overcrowding at both public hospitals and PHCs throughout the province the North West PDOH initiated an MOU with BroadReach Healthcare (BRHC) – a private health care company registered in South Africa as a proprietary limited company and the United States as a limited liability company – to initiate a private sector down referral program in the North West province. The MOU established joint program management shared by the PDOH and BRHC, with BRHC taking primary responsibility for the financial management of contracted GP consultation fees, GP and patient training sessions, patient monitoring, and program evaluation and reporting. With support from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and in partnership with the North West DOH, the BRHC down referral program focuses on down referring routine ART care to a network of local private general practitioners (GPs) who provide an alternative service delivery option for stable patients requiring ART maintenance care and services. In Matlosana, the public-to-public and public-to-private models of down referral for routine ART maintenance operate in parallel and initiate at the Tshepong Hospital Wellness Clinic, making the context ideal in contrasting the two models of down referral.

Clinical Down Referral

- Refers to moving clinical service provision from hospitals or other centralized locations to lower health system levels such as primary health clinics
- Is increasingly used as part of HIV and ART service delivery decentralization efforts
- Proponents argue that down referral increases the number of entry points to care and increases retention due to wider service availability
- Critics argue that unless done carefully and systematically, down referral can substantially increase loss to follow-up and lead to negative patient outcomes
- Is increasingly being explored as a private health sector engagement mechanism, in addition to health system decentralization

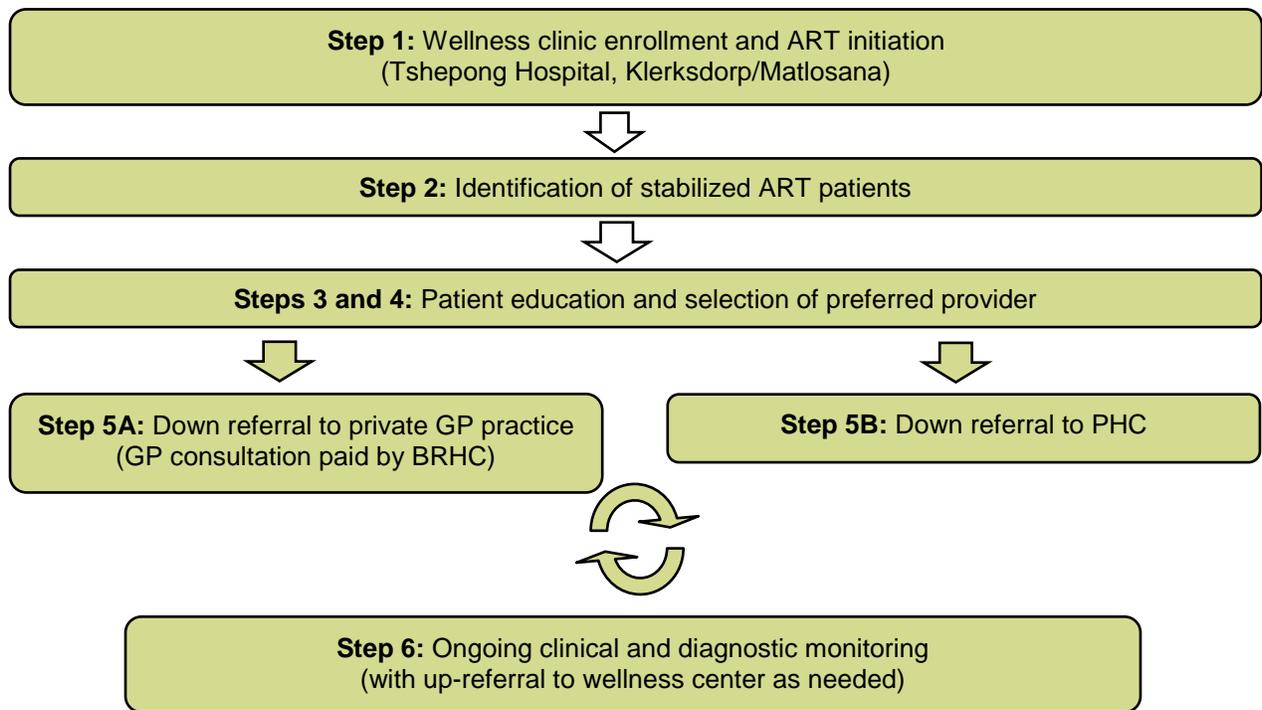
This brief compares and contrasts two down referral programs operating in Northwest province. One is offered by the North West DOH, referred to here as the public PHC health care model (public-to-public down referral), the other is the private BRHC GP model (public-to-private down referral to BRHC contracted GPs). Based on an independent evaluation of the BRHC GP down referral model in the Matlosana sub-district of North West Province (Navario, 2009), and supplemented by interviews with 20 key policy and operational stakeholders in 2010 and 2012, this brief presents and discusses the collective findings and potential implications in the context of South Africa's ongoing health system reforms. Interviews included discussions with DOH officials at the national, district, and provincial levels, and with private general practitioners, donors, and private provider associations. The evaluation consisted of an independent quantitative assessment (Navario, 2009) of patient health outcomes including viral suppression and program retention rates in the private GP model and the public PHC model. It also includes

a cost assessment of both models and qualitative research involving interviews with a subset of patients receiving care in each of the models.

I.3 OVERVIEW OF ART DOWN REFERRAL MODELS IN NORTH WEST PROVINCE

Regardless of where a stable ART patient ultimately receives his or her ongoing chronic care and ART maintenance—from a BRHC contracted GP or at a public sector PHC—the patient’s entry into either down referral ART care program is the same. Figure 1 illustrates the typical down referred patient flow into either the public PHC model or private BRHC GP model, followed by a more detailed narrative on each of the steps involved in initial down referral and access to ongoing care.

FIGURE 1: PATIENT FLOW FOR DOWN REFERRAL IN THE TWO MODELS



STEP 1: WELLNESS CLINIC ENROLLMENT AND ART INITIATION

HIV-positive patients who meet ART eligibility criteria are initiated on the appropriate ARV regimen at the Tshepong Hospital HIV/AIDS Wellness Clinic in Klerksdorp/ Matlosana. Patients continue to receive ongoing outpatient ART care and treatment of secondary opportunistic infections through the Wellness Clinic until they are identified as eligible for down referral (i.e., achieve viral suppression and have no clinical signs or symptoms of disease—see box above). On average, patients spend 12

Down Referral Eligibility Criteria

- Suppressed viral load (<400 copies/μl)
- Absence of clinical signs and symptoms of disease
- On ART for greater than six months
- Psychological assessment completed indicating ART adherence readiness

months in outpatient care at the hospital-based Wellness Clinic before providers determine that they are eligible for down referral (Navario, 2009).

STEP 2: IDENTIFICATION OF STABILIZED ART PATIENTS

On an ongoing basis, clinical personnel at the Wellness Clinic identify stable patients who meet the down referral eligibility criteria outlined above. A Wellness Clinic physician will review the patient's clinical condition and adherence readiness, and may make a recommendation for down referral.

STEP 3: PATIENT EDUCATION

Patients who have been identified for down referral by clinical staff at the Wellness Clinic are asked to attend an educational session conducted by Wellness Clinic staff that explains the down referral process. These sessions include information on treatment guidelines and the importance of ART adherence, and an overview of private and public options for their ongoing ART care outside the Wellness Clinic. Importantly, there is no discussion of the possible benefits or drawbacks of the different models and options. Patients are simply informed about the location of GPs in the private GP model and informed that they will bear no cost for choosing a private GP over their local public PHC (typically staffed by a registered nurse with intermittent visits by a physician). Of note, when the program started in 2004 many patients still believed that they would incur full or partial costs of their care via the private GP model and chose to seek ongoing care via their local public PHC. According to BRHC, after six years of operation, patients are better informed about the program and their options from people in their communities.

STEP 4: SELECTION OF PREFERRED PROVIDER

Following the education session, patients attend a consultation with their primary doctor at the Wellness Clinic, who carefully evaluates the patient's clinical condition and provides final clearance for down referral. At this stage, patients select whether they wish to continue care at their local public PHC or through one of the BRHC-contracted private GPs. According to BRHC staff, there are several determinants that may influence a patient's selection of down referral to either a private GP or a public PHC. Patients selecting care from a BRHC contracted private GP often have existing relationships with that GP, or may choose GP care due to concerns over confidentiality (see box). Many patients who choose private GP down referral may also have a perception of higher quality of care in the private health sector, or a strong preference to see a physician regularly rather than primarily consulting with a nurse or nurse assistant at PHCs. Clinic proximity is perhaps the most influential factor, with patients often choosing their provider based on location and anticipated transport costs in reaching either a public or private clinic. According to BRHC, patients who choose the public PHC option often do so because they have multiple chronic care needs. The BRHC GP's scope of ART care negotiated with the North West DOH at program inception was limited to ART maintenance and recently extended to cover hypertension and

Patient Perceptions: GP Model

"Often patients have already been to a private GP before coming to the Wellness Clinic. Patients may think, 'There is a certain GP I went to before I knew about my HIV status and I see that they are on the list. I already have a relationship with this GP. So it influences my decision.' At the same time, some decisions go against what we organizationally expect. A patient may pick a GP outside their township for their own comfort. They can go to this clinic and no one there will recognize them so there is more confidentiality. Others may prefer a GP in their township because of convenience."

Holiness Thebyane, program coordinator,
BroadReach Healthcare, Tshepong Hospital

diabetes. Patients with other chronic care needs often prefer to attend a PHC where they can have all health care needs addressed at once. Because the BRHC GP model is currently only available to adults, women with children often choose PHC down referral care where they can receive their ART care and access pediatric health care for their children. Costs of clinical consultation do not appear to be a major determinant for patients in the BRHC model since basic consultation costs are covered by BRHC utilizing PEPFAR funding. The North West DOH covers all other costs within the public health system. Costs of supportive diagnostics (i.e., CD4 and other laboratory fees) which are not covered under the BRHC model may indeed influence patient choice of either the BRHC or public option. Laboratory services requested by the clinician or patient are done so only within strict national guidelines, and only if warranted by hospital staff will additional pathology be performed. Radiology (i.e. X-rays) are not covered as part of the BRHC/PDOH protocol.

After indicating their choice, patients receive a hard copy of their down referral form from the doctor, which includes their clinical records, ART regimen, and laboratory results. In addition, a prescription is sent to the Tshepong Hospital pharmacy indicating the patients' ongoing ART clinic choice or collection point

STEP 5: DOWN REFERRAL TO THE PRIVATE GP OR PUBLIC HEALTH CARE MODEL

Patients who select the private GP model attend a follow-up patient orientation session conducted by a BRHC staff member who explains the GP model in greater detail. The BRHC staff member also assists the patient with GP selection and schedules his or her first appointment at the receiving GP surgery. For patients who choose to receive ongoing ART care via their public PHC, a nurse at the Wellness Clinic schedules their first visit and provides the down referral documentation outlined above. BRHC pays the GPs directly, with one consultation approved for each patient every 28 days at a capped negotiated rate. Patients are followed monthly to confirm their continued status in the program and to adjust GP payments accordingly.

STEP 6: ONGOING CLINICAL AND DIAGNOSTIC MONITORING WITH UP REFERRAL TO THE WELLNESS CLINIC AS NEEDED

Patients in both models continue to visit the Wellness Clinic every six months for routine laboratory testing such as CD4 and routine blood tests, and to receive their latest laboratory results. Test results from the Tshepong Hospital laboratory are also sent directly to the district pharmacy, also on the Tshepong Hospital grounds, where (if results are stable) pre-packed patient ARV medications are sent to each of the BRHC private GP clinics. ARVs (with the exception of second line medications, which are pre-packed for individual patients) are sent to public PHCs in bulk, where they are packaged and dispensed directly to patients in the PHC model. Both models also up refer any complicated cases back to the Wellness Clinic for complex care that is not provided in the scope of the private GP or PHC models. This includes acute or complex events such as ART complications, new opportunistic infections, adverse drug events, and ART default or non-adherence. Of note, in the private GP model if patients have other primary health care or non-HIV disease management needs, they must travel to their local PHC or hospital for care. Over the past several years, as trust and confidence in the care provided by BRHC-contracted GPs has improved, the scope of care provided under the model has expanded. Initially, BRHC-contracted GPs were not allowed to initiate or switch ART regimens. Now, private GPs can make changes to ART regimens, and provide more complete management of some secondary chronic conditions such as hypertension and diabetes.

2. EXAMINING THE DOWN REFERRAL MODELS

2.1 CONTRASTING THE BROADREACH PRIVATE GP AND PUBLIC PHC DOWN REFERRAL MODELS

As outlined in the last section, several similarities exist between the BRHC private GP and public PHC down referral models. All patients are currently initiated and stabilized on ART at the Wellness Clinic (although local PHC and GP initiation has recently been explored), neither model requires patients to incur any out-of-pocket expenses, patients in both models are consulted at the Wellness Clinic every six months for routine CD4 and other laboratory testing, prescriptions are packed and delivered to the point of care via the district pharmacy at Tshepong hospital, and patients are up referred back to the hospital-based Wellness Clinic for acute treatment disruptions and/or complications. In both models the North West DOH finances all laboratory, drug, and hospital-based consultation costs and the district health management team provides oversight and coordination of the down referral processes (although with additional support from BRHC program management staff in the private GP model).

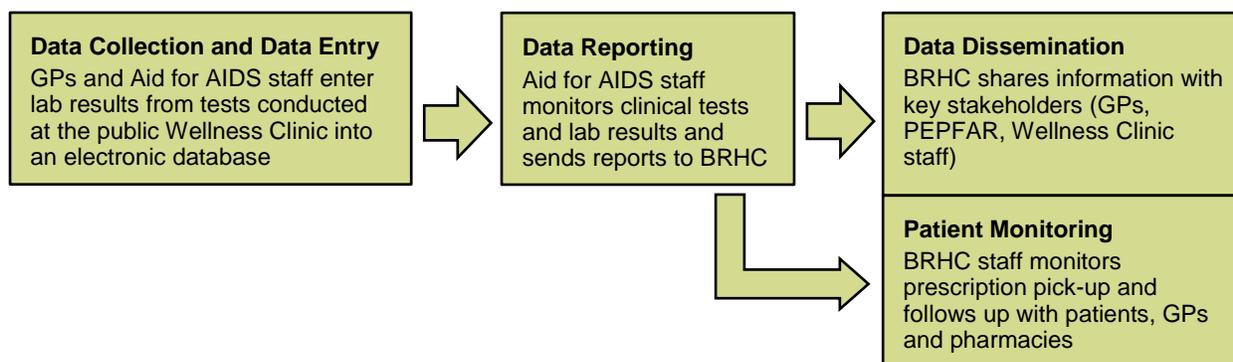
Several key operational differences distinguish the two models and have implications on replication and utilization of the private GP model in other South African or global contexts.

OPERATIONAL PROCESSES FOR MAINTAINING RECORDS AND TRACKING PATIENT OUTCOMES

To maintain patient records and more closely monitor treatment for patients down referred to the private GP model, BRHC utilizes an electronic health information database designed specifically for HIV care. First, contracted GPs who are monitored and supported by Aid for AIDS—a BRHC data management partner funded through BRHC’s PEPFAR funding—enter laboratory results collected from the hospital into the database. Data management staff at Aid for AIDS then monitor clinical and diagnostic information and report to BRHC, which disseminates the information to all contracted GPs, the Wellness Clinic, PEPFAR, and the Tshepong Hospital CEO (Navario, 2009). Of critical importance in comparing the two models, BRHC utilizes reports generated from the database to closely monitor patient treatment progress and loss to follow-up in the private GP model. BRHC staff members follow standardized protocol to ensure patients who do not collect their medication receive the necessary and appropriate feedback. A patient who misses a scheduled drug pick-up has a one-week grace period before the physician completes a new prescription for the patient indicating they have uncollected medication. This information is sent to the Aid for AIDS database via fax and to the Tshepong Hospital pharmacy, resulting in suspension of drug dispensing and a status change for the patient to “suspended.” A national BRHC “Adherence Supporter” based out of the BRHC office in Johannesburg then tracks the patient, and pending the outcome of the follow-up investigation, may engage the Wellness Clinic program manager, the patient’s primary GP, or the BRHC Clinical Manager for support. According to the BRHC program coordinator, linkages between the GPs, the Wellness

Clinic, and local PLHIV support groups have been critical in finding and retaining patients who default from care or are lost to follow-up.

FIGURE 2: INFORMATION FLOW IN THE PRIVATE GP MODEL



In contrast, nurses and administrative staff within the public PHC model use paper-based patient registries that do not allow for the level of monitoring, tracking and patient care plan management achieved in the private GP model. Methods for tracking patients are limited to calling patients or partnering with local home-based care organizations to find patients who have missed an appointment. These methods are used at the discretion of responsible PHC nurses or administrative staff members who are not technically required to follow any kind of standard protocol for tracking patients lost to follow-up. However, based on BRHC success in increasing patient retention in the private GP model, the North West DOH has recently instituted a new DOH-paid default tracer position to support the DOH-paid Wellness Center project manager and the PHC nurses in patient tracking. The use of electronic data management, linkages to support groups, and multi-level communication channels for patient tracking utilized by BRHC in the private GP model are now being pursued throughout North West province as a best practice in patient follow-up and retention efforts.

PROGRAM MANAGEMENT AND OVERSIGHT

The private GP model is managed by BRHC, which established contracts with 19 private sector member GPs of the independent GP network of Klerksdorp, Orkney, Stilfontein, and Hartebeesfontein (K.O.S.H.M.E.D.). BRHC currently manages all day-to-day operations of the private GP model, patient and provider orientation sessions, and program monitoring and evaluation. BRHC currently finances private GP consultation costs through PEPFAR funds, although financial responsibility for consultations is currently being transitioned to the North West DOH. BRHC also ensures that effective communication between the contracted GPs, Tshepong Hospital departments, and the outpatient Wellness Clinic is initiated. Aid for AIDS sends automated reports to BRHC on patient progress with monthly and quarterly patient progress reports disseminated among BRHC managers, K.O.S.H.M.E.D. contracted GPs, the Tshepong Hospital CEO, and PEPFAR.

In contrast, the public PHC model receives overall program guidance and oversight from the head of Tshepong Hospital's internal medicine department and the program manager at the Wellness Clinic. The ART program manager at the Wellness Clinic, along with the nurses and

administrative staff at each of the PHC clinics, provides day-to-day management of the public PHC model.

PROVIDERS, SERVICES, AND FINANCING

In both models, patients visit their provider (either a private GP or a PHC nurse) on a monthly basis for a routine ART follow-up consultation, to collect their ARV medications, and to discuss their overall health and drug adherence. However, in the public PHC model, patients normally consult with a nurse or occasionally a public sector physician if they are conducting intermittent PHC consultations (typically four hours per week). Typically, patient consultations with public sector physicians at a PHC focus on the patients' latest laboratory results.

In the private GP model, patients are only able to consult with a physician about routine ART maintenance, general HIV care, diabetes, and hypertension. Patients with other primary care or acute health concerns unrelated to their HIV or ART are referred to care at their local PHC or hospital. K.O.S.H.M.E.D.-contracted GPs providing care in this model provide only routine care related to ART maintenance for the negotiated fee of R110 (US\$16.33) per patient consultation. This fee is financed by BRHC with funds from PEPFAR. These fees were negotiated at program inception with the North West DOH to ensure that they are kept nominal and sustainable should the Ministry of Health need to assume the role of financier in the future. This is an important consideration in the context of South Africa's changing PEPFAR and external donor landscape. In contrast, routine ART and primary care provided in the public PHC model is provided by nurses whose salaries are financed by the North West DOH as part of the provincial health financing system.

KEY ACTORS

Table 1 outlines many of the similarities and differences between the models in the context of key actors and their roles in the down referral process.

TABLE 1: KEY ACTORS AND THEIR ROLES IN THE DOWN REFERRAL PROCESS

Actor	Role
GP Model	<ul style="list-style-type: none"> • Routine care by GP at one of 19 PEPFAR-funded private facilities • Provide ART medications • Present lab results from tests conducted at Wellness Clinic • Track adherence using computer-based HMIS • Provide hypertension and diabetes care • Includes K.O.S.H.M.E.D., BRHC, Aid for AIDS
Public Health Clinic Model	<ul style="list-style-type: none"> • Routine care by nurse at one of 11 public primary health care clinics • Provide ART medications • Present lab results from tests conducted at Wellness Clinic • Track adherence using paper; no standard protocol • Provide non-ART related care

Public Sector Oversight and Management	<ul style="list-style-type: none"> • Department of Health pays for all laboratory, drugs, and hospital costs • District health management team provides oversight and coordination • Provincial department of health provides limited oversight of private contracts, reviews progress reports, and provides training to GPs on HIV standards and protocols
District Hospital	<ul style="list-style-type: none"> • Manages patient initiation and complications that require inpatient support • Laboratory, administrative, and pharmacy staff handle ART procurement and distribution, deliver monthly regimens to down referral clinics or GPs, collect prescriptions from down referrals and retrieve any uncollected medications, file laboratory results from patient semi-annual visits, and prepares them for a weekly pick-up by BroadReach staff
District Hospital Wellness Clinic	<ul style="list-style-type: none"> • Outpatient clinic initiates patients on ART and manages care until stabilized • Clinic staff identify stabilized patients for down referral to public clinic or private GP • Clinic staff educate identified patients on ART adherence and brief them on public and private down referral models

2.2 COMPARING COSTS OF CARE AND PATIENT OUTCOMES IN THE MODELS

Ultimately, the purpose of any health intervention is to improve patient outcomes and assist patients in stabilizing their health for the long-term. To assess outcomes, this section draws heavily from the results of a 2009 evaluation that analyzed patient outcomes, costs, and cost-effectiveness. The analysis compared two cohorts of patients (228 patients in the private GP cohort and 229 patients in the public PHC cohort) that were matched on key characteristics, including gender, age, down referral date, and time spent on ART. Outcome data such as viral suppression and patient retention on treatment were collected from clinic records and patient files. Cost data included HIV and tuberculosis drugs, routine laboratory tests, down referral care, and hospital-based outpatient and inpatient care. Total and average costs for each of the models were based on resource utilization during the course of the study, which spanned the period from November 2005 to March 2008. During this period, patients in both models spent an average of 18 months in down referral care (Navario, 2009).

CLINICAL AND OPERATIONAL OUTCOMES

The evaluation considered a number of health outcomes to see whether there are statistically significant differences between the two models. It is important to note that, although there are correlations between the operational models and some clinical health outcomes, one cannot attribute a direct causal link between either of the models and patient clinical outcomes as there are multiple factors that impact health outcomes that cannot be or were not measured in the 2009 evaluation. However, as described below, there appears to be a correlation between the models and operational outcomes such as reduced loss to follow-up. In addition, while the

evaluation matched patients according to their time spent on ART, patients who chose to remain in the public PHC model may have had additional health concerns which could have affected their health outcomes. With data on program retention and laboratory evidence of suppressed viral load, the evaluation compares the relative number of patients enrolled with a suppressed viral load (<400/μl) at study end. Patient retention in ART care—specifically in down referral care—were measured for both models.

KEY FINDING 1: THE PRIVATE GP MODEL RESULTED IN MORE EFFECTIVE PATIENT RETENTION WITH SOME EVIDENCE OF GREATER VIRAL SUPPRESSION.

As shown in Table 2 below, overall retention on ART was 94 percent in the private GP model cohort compared with 75 percent in the public PHC model cohort. In terms of patient retention in down referral care, 89 percent of patients who were down referred to the private GP model continued receiving care in that way, whereas only 58 percent of patients down referred to the public PHC model stayed in care there. Of note, but not necessarily attributable to the operational model, 88 percent of the private GP model cohort had suppressed viral loads (<400 copies/μl) compared with 67 percent of the public PHC model cohort. Finally, the proportion of patients who remained in care at the down referral site and had suppressed viral loads was 83 and 55 percent in the private GP and public PHC model cohorts respectively. In each cohort, seven patient deaths were recorded, while two private GP model patients and three public model patients chose to stop taking ART.

KEY FINDING 2: THERE WAS AN ESTIMATED 47 PERCENT LOWER RATE OF LOSS TO FOLLOW-UP IN THE PRIVATE GP MODEL.

Among the private GP model patients, 14 (4 percent) were no longer receiving care in the model at the study's end. Of these, five patients (36 percent) were classified as lost to follow-up. Among the public PHC model patients, 57 (25 percent) were not in care at the end of the study period. Of these, 47 (83 percent) were considered lost to follow-up (Navario, 2009). The higher rates of patient retention at study end and reduced loss to follow-up in the private GP model reflect the effectiveness of the information and database management system utilized in the BRHC private GP program. Close patient monitoring and direct follow-up with patients who neglect to pick up their medication or miss an appointment, have emerged as best practice adherence and patient monitoring approaches in North West province. However it is important to note that rates of full treatment default (patients who chose to stop taking ART) were similar in both models.

**TABLE 2: PATIENT OUTCOMES: RETENTION AND VIRAL SUPPRESSION
(SEPTEMBER 2007–MARCH 2009)**

MODEL	% COHORT RETAINED ON ART	% COHORT RETAINED IN DOWN REFERRAL CARE	% COHORT SUPPRESSED*	% COHORT RETAINED IN DOWN REFERRAL CARE AND SUPPRESSED
GP Model	94% (214/228)	89% (203/228)	88% (220/228)	83% (190/228)
Public Model	75% (172/229)	58% (133/229)	67% (154/229)	55% (126/229)

Source: Navario (2009)

*Patient records were evaluated to determine CD4 levels and viral load (all values since enrollment), dates of patient appointment and drug pick-up, date of ART initiation, ART regimen (including regimen history), and date of death or other end date.

KEY FINDING 3: THERE WERE A LOWER NUMBER OF UP REFERRED CASES IN THE PRIVATE GP MODEL.

There were some differences in the numbers of patients who needed to be up referred back to the Tshepong Hospital Wellness Clinic for treatment complications. In the GP Model, 55 up referrals occurred, with a 2.6 month average length of stay in the hospital outpatient clinic. In the public PHC model, 84 patients were up referred to the hospital clinic, with an average stay of 7.4 months (Navario, 2009). Possible reasons for higher cases of up referral from the public PHC model include a lack of clinical confidence among nurses related to ART treatment complications, PHC patient volumes that were too high to manage, a higher occurrence of ART complications due to more intensive chronic care needs, or a combination thereof. The lower number of up referred cases by GPs in the private GP model may have been due to GPs' reluctance to up refer, higher clinical confidence in treating ART complications, or reduced complications related to higher rates of retention and treatment consistency. Among both groups, inpatient hospital stays were rare, with an average length of stay of three months, with most probably shortened due to high inpatient service fees (Navario, 2009).

COST ANALYSIS OF THE MODELS

KEY FINDING 4: THE PRIVATE GP MODEL INCURS HIGHER TOTAL AND AVERAGE COSTS BUT LOWER ICER COSTS RELATIVE TO THE PUBLIC PHC MODEL.

The most relevant measurements for comparative cost analysis in this study are total costs, average costs per patient per month, and the incremental cost-effectiveness ratio (ICER). The ICER measures the marginal cost of including another patient with successful viral suppression in down referral care for an additional month. Total and average costs are blunter measurements that speak to overall financial responsibility, while the ICER measurement speaks to cost effectiveness. The results of Navario's study show that the private GP model incurs higher total and average costs (largely attributable to higher patient retention) but lower ICER costs relative to the public PHC model. These results have significant implications in on-going debates related to health financing and sustainability of national HIV responses.

As Table 3 demonstrates, total model cost was higher in the private GP model (R2,153,233) compared to the public PHC model (R1,556,591) during the study period, as was the average cost per patient per month: R545 in the private GP model and R440 in the public PHC model.

The ICER, or the cost of each additional patient (with eligible viral load suppression and in down referral care), was R505 per patient per month for the private GP model and R724 per patient for the public PHC model.

TABLE 3: COST-EFFECTIVE ANALYSIS (NOVEMBER 2005–MARCH 2008)

MODEL	TOTAL COST OF MODEL	AVERAGE COST PER PATIENT PER MONTH	ICER (PER PATIENT IN DOWN REFERRAL CARE)
GP Model	R2,153,233 (US\$281,259)	R545.38 (US\$71.24)	R505.20 (US\$65.99)
Public Model	R1,556,591 (US\$203,318)	R439.47 (US\$57.40)	R724.00 (US\$94.57)

Source: Navario (2009)

KEY FINDING 5: HIGHER TOTAL AND AVERAGE COSTS IN THE PRIVATE GP MODEL COULD BE DUE TO AN OVERALL HIGHER COST OF CARE AND MORE EFFECTIVE PATIENT RETENTION.

Two main factors that could explain higher costs in the private GP model are higher costs of care and a greater number of active patient months because of better patient retention when compared with the public PHC model. Measured costs of care in the private GP model included salaries, equipment (computers, phones, and 3G cards), and travel and data management fees. Cost of care in the public PHC model was comprised entirely of salaries—no special equipment was used for ART care in the clinics and no staff travel was required. The second factor, the higher retention rate in the private GP model was in part due to the effectiveness of the data management system used to track patients who missed appointments or did not collect their medication. By increasing patient retention and limiting loss to follow-up, the total and average costs of care in the private GP model were higher because more patients remained in care for longer. The private GP model patients had almost 1,000 more down referral care visits than the public PHC model during the study period. Thus, the success of the private GP model in increasing patient retention contributed to increased total and average costs.

Other factors such as overhead costs and cost of drugs were not factors affecting the measured difference in cost of each model. Overhead costs were excluded from both models, as they were virtually impossible to delineate in the public PHC model (where HIV care and primary care are both offered), and they would have constituted a negligible amount relative to the other costs. Also, unit costs for drugs and laboratory tests were the same, as they were provided by the North West DOH in both models.

The ICER is the measurement most relevant for the discussion of cost effectiveness in comparing the two models. Based on evaluation analysis, the private GP model is more cost effective (R505) than the public PHC model (R724). However, the results showing higher total and average costs of the private GP model are pertinent to the discussion on sustainability and scalability.

3. STAKEHOLDER PERSPECTIVES AND OPERATIONAL LESSONS

3.1 THE BRHC PRIVATE GP MODEL: SUCCESSES AND LESSONS

Drawing from Navario’s evaluation as well as key informant interviews conducted by SHOPS, this section highlights the reported successes of the BRHC private GP down referral model.

MORE EFFECTIVE PATIENT RETENTION

As stated above, the private GP model resulted in considerably more effective patient retention at the down referred GP surgeries or consulting rooms, which is largely the result of the strong health management information system (HMIS) implemented by BRHC and vigorous patient follow-up efforts. A national DOH representative who admitted he was initially very reluctant to support the private GP model stated that higher patient retention and adherence to therapy were encouraging outcomes that subsequently influenced his support of the model.

STRONG CLINICAL MONITORING AND EVALUATION SYSTEM

Representatives interviewed from the North West DOH referred to the monitoring and evaluation processes (including patient tracking) used by BRHC in the private GP model as best practices for the province. Four of the private GPs interviewed mentioned that the patient tracking system and BRHC’s support in enabling vigorous patient follow-up enabled them to track patients more successfully and retain them in care (see box).

Provider Perceptions: GP Model Monitoring and Evaluation

“When a client does not turn up for an appointment, we take action to [find out] what happened to the patient...in the public sector, this is not possible. I have control, I can see my patients who have been there and who have not been there. So this gives us much better results”.

Private GP from Matlosana on BroadReach’s monitoring and evaluation system

RELIEF OF OVERBURDENED PUBLIC SECTOR ART RESOURCES

Both national DOH and provincial DOH representatives noted that the private GP model effectively achieved its intended goal of providing relief to the overburdened and saturated public sector ART resources at the Tshepong Hospital Wellness Clinic. Health authorities, hospital management, and Wellness Clinic staff all reported that after the rollout of the private GP model in Matlosana, the Wellness Clinic and hospital staff were able to direct more resources to new ART initiations and management of complicated cases. In addition, as the scope of care provided by the private GPs has been expanded to include other chronic conditions and allows for GPs to switch ART regimens, their involvement in receiving referrals from multiple health system levels has also increased. Over the lifespan of the program, as capacity was strengthened at the Tshepong Hospital Wellness Center, ART care was

decentralized and down referred to PHC clinics throughout the province. Although local PHC capacity is now also being strengthened through this process, many (often understaffed) PHCs are finding themselves overwhelmed with HIV/ART care needs in addition to the regular provision of primary care. As such, BRHC-contracted GPs were set to begin receiving “lateral referrals” from public PHCs as of November 2012, with the intent of freeing space and capacity at local PHCs.

CONNECTIONS TO EXISTING GP NETWORKS

The prior existence of strong independent practitioners associations (GP network) in both Klerksdorp(K.O.S.H.M.E.D.) and Mafikeng (MAIPA) greatly facilitated the rollout of the BRHC GP model. Although no such network exists in Potchefstroom sub-district during recent program expansion, BRHC leadership has had to individually contract GPs participating in the Potchefstroom program. , As these experiences demonstrate, the existence of strong GP networks can greatly facilitate the implementation and rollout of GP contracting or down referral models, while the implementation of the model itself can be a powerful tool in creating such networks and linkages between private providers, patients, and government health authorities.

ENHANCED PATIENT-PROVIDER RELATIONSHIPS

K.O.S.H.M.E.D. GPs involved in the down referral program stated that their enhanced ability to provide individualized and consistent care to their clients in comparison to saturated public health resources improved the patient-provider relationship, built trust with patients, and ultimately improved continuity of care. This was reinforced by key informants from the donor community and both the national DOH and North West DOH who indicated that the program generally benefited patients, relieved overburdened public health facilities, and provided the private GPs with an opportunity to give back to their communities.

STRONG INTEGRATION WITH NATIONAL GOALS

Interviews with provincial DOH and staff at Tshepong Hospital indicated that early efforts to ensure that the private GP model was aligned with South Africa’s national and provincial HIV/AIDS policies earned it support from the North West DOH (National DOH, 2007). This early alignment with the national DOH goals and guidelines positioned the model as key to accelerating the North West DOH’s vision of expanded HIV treatment, care, and prevention. A representative from the national DOH noted, “GPs are using our guidelines to expand access to service points and this goes a long way in creating a unified health system.” In addition, more recent alignments with South Africa’s on-going PHC re-engineering process (Pillay and Barron, 2011) and roll-out of NHI (Republic of South Africa 2011) have focused attention on contracting and down referral models (such as the BRHC private GP program) as potentially strong components of a multi-sectoral and unified South African health system. As of November 2012, the Dr. Kenneth Kuanda district of North West province was identified by the National DOH as one of the pilot districts to be included in an initial roll-out of NHI. Efforts by the North West DOH and BRHC to incorporate the BRHC GP program into the district NHI plan are underway, with particular attention to sustainability and program transition to the DOH as PEPFAR moves towards a technical assistance model.

STRONG COMMUNICATION CHANNELS

Tshepong Hospital management and North West DOH staff also noted that the on-site availability of BHRC staff in the Wellness Clinic facilitated patient referral and prompt communication between GPs, hospital management, laboratory personnel, and Tshepong pharmacy services. Some of the GPs interviewed noted that their decision-making abilities were enhanced by regular communication of learned successes, mistakes, and shared experiences during monthly ad hoc meetings with staff from the Wellness Clinic, hospital, BRHC, and other participating K.O.S.H.M.E.D. GPs.

Interviews conducted in 2009 with patients active in the private GP model support the positive assessments provided by the stakeholders above and the results of the independent impact analysis (Navario, 2009). The author interviewed 35 randomly selected patients from the private GP model and 39 from the public PHC model. Results of those interviews showed that in addition to receiving better adherence support and follow-up, patients in the private GP model were more likely to access patient counseling and adherence training than patients in the public PHC model.

3.2 THE BRHC PRIVATE GP MODEL: CHALLENGES AND CONSTRAINTS

Despite more effective patient retention and greater cost effectiveness, the private GP model is not without its shortcomings. The initially limited scope of care available from private GPs beyond ART maintenance, key features that may be difficult to replicate in other settings, and some reports of problems in the public-private relationship have all potentially lessened the impact and opportunities to expand the model.

STRONG HMIS AND RIGOROUS FOLLOW-UP EFFORTS MAY NOT BE REPLICABLE

Improved patient retention and reduced loss to follow-up in the private GP model were largely attributed to the strong HMIS implemented by BRHC and Aid for AIDS. Replication and scale-up of such extensive electronic database management and vigorous patient follow-up may be too complex or costly to replicate nationally or in other resource-poor settings. However, the effectiveness of the patient monitoring and follow-up system in reducing loss to follow-up should not be understated despite potential difficulties replicating or expanding it in other settings. The impact of effective follow-up on increasing patient retention in the BRHC private GP model is significant and has led to the strengthening of public sector efforts to improve defaulter-tracing and PHC retention in North West province.

FAILURE TO HARMONIZE PUBLIC-PRIVATE HMIS SYSTEMS

A failure to integrate the private GP model HMIS with the public information management system also potentially weakened the impact of the private GP model. Although the monitoring and evaluation system was seen as a best practice by a provincial DOH representative, one national DOH stakeholder indicated that the system was not sufficiently linked to the independent District Health Information System, despite similarities in the two systems. Some interviewees speculated that the information gap may have been due to slight differences in PEPFAR and national DOH reporting indicators, or the fact that the public District Health

Information System was not fully developed at the time of the GP Model's inception. These comments reveal that solving this problem will require input and cooperation among stakeholders at local, national, and international levels.

UNDER-UTILIZED TREATMENT SUPPORT SERVICES

While the private GP model patients are more likely to utilize counseling services, other treatment support services were under-utilized. This included limited use of treatment buddies or supporters, access to community health workers, HIV support groups, social grants, access to nutritional support, service access at other local nongovernmental organizations, and adherence training (Navario, 2009). Only 9 percent of private GP model patients reported attending an HIV support group. Utilization of support services among public PHC model patients was equally low at 8 percent.

PRIVATE GP SERVICE PROVISION LIMITED TO ROUTINE ART MAINTENANCE

At the time of the 2009 evaluation, the fact that participating private GPs did not provide other primary care services along with the negotiated services of ART renewal and maintenance limited the provision of holistic care to patients in the private GP model. Patients requiring primary care or non-HIV services were referred to public sector services. As such, patients down referred to the private GP model, particularly those requiring nutritional support or other primary or chronic care interventions, were required to spend time traveling between their ART GP and public services/clinics in order to satisfy all of their health care needs. As of August 2012, the private GPs had expanded their services to include hypertension and diabetes treatment. While GPs indicated a willingness to include more services, it was the DOH that prioritized hypertension and diabetes treatment. However, expansion of the negotiated service basket provided by private GPs in the model could be further enhanced through the inclusion of ART initiation, prevention of mother-to-child transmission, antenatal and reproductive health care, and nutritional counseling subject to DOH approval.

WEAK COMMUNICATION CHANNELS AT THE DISTRICT LEVEL

It was reported by some respondents that communication between public and private stakeholders has also been a challenge. While the private GP model seemed to foster strong communication between sub-district officials, the hospital staff, BRHC, and the contracted GPs, interviews with some stakeholders suggested that dialogue between private and public stakeholders is infrequent and less transparent at the provincial DOH and District Health Management Team level. District and provincial representatives also revealed that even though they were kept abreast of the model's progress, they were not involved in the day-to-day operation and management of the private GP model. Details in the contractual relationship such as the limitations on scope of work for GPs also, it seems, negatively impacted the degree of trust and openness in public-private cooperation.

GOING TO SCALE

With the support of the North West DOH, PEPFAR, and BRHC, the private GP model has recently expanded within the North West Province to the sub-districts of Potchefstroom and Mafikeng. As of August 2012, 2,397 patients have been down referred since program inception with a 93 percent patient retention rate. Over five years, patients report a viral load suppression

rate of 96 percent, with only 0.7 percent of patients being lost to follow-up. As Dr. Kenneth Kaunda district has now been identified as one of the pilot districts in South Africa's rollout of NHI, there is also strong potential for the model to be further expanded or replicated across the country as it is incorporated into the district NHI strategy. Table 4 presents some of the reported facilitating and constraining factors related to scaling up the private GP model, which should be taken into account when considering replication or expansion of the model.

To some degree, the success of the private GP model in Matlosana is the result of contextual factors specific in time and space. For example, the national push to rapidly accelerate ART access, combined with a high (17.7 percent) HIV prevalence in the North West Province, led to support for innovative models to expand access to long-term ART management. Also, the existence of and motivation on the part of the K.O.S.H.M.E.D. GP network to participate in the model was essential, as was buy-in from the Tshepong Hospital management team, the North West DOH, the Wellness Clinic, and PEPFAR and its implementing partner BRHC. Finally, forward thinking and strong leadership from several key individuals in each sector was also critical in launching and maintaining the private GP model.

Nevertheless, as the table suggests and as recent program expansion has indicated, there is potential for replicating the program's success in other regions or countries. One relevant issue determining the ability of the program to scale-up concerns the balance between standardization and customization. One district hospital official who is actively involved with the expansion cautioned against implementing a "one size fits all" approach when pursuing mechanisms of down referral or contracting out. This view was supported by a representative from the national DOH. On the other hand, standardization allows others to replicate proven best practices. Clearly, a fine balance must be struck between standardization, harmonization of new models with provincial and district health systems, and customization of operational and partnership structures in order to respond to the unique characteristics of each sub-district.

Successful scale-up and/or replication of the private GP model will require careful planning as well as adjustments to the Matlosana experience. Achieving this productive balance between standardization and customization will require inclusive consultation between representatives from all sectors of the health system, local HIV advocacy groups, public and private practitioners, and facility managers. These stakeholders will need to determine requirements for and availability of human resources in the public and private sectors, and tailor the Matlosana model accordingly to reflect patient and facility needs. Stakeholders should also gauge political and financial support (particularly financial sustainability) in pursuing mechanisms for private GP down referral or contracting out. They should also complete separate costing assessments for each sub-district, as health care costs can vary widely from one locale to another (Navario, 2009). Each of these processes should be documented transparently in order to inform the decision making process and to create a private sector engagement model that works in its particular context.

TABLE 4: FACTORS FACILITATING AND CONSTRAINING EXPANSION OF THE PRIVATE GP MODEL

FACILITATING FACTORS IN MATLOSANA	FACTORS THAT MAY INHIBIT SCALE-UP BEYOND MATLOSANA
Existence of the Independent Practitioners Association (K.O.S.H.M.E.D.), which facilitated the formation of the GP Network.	The physician professional association is not present in Potchefstroom, which may slow plans to expand the model to this sub-district.
Gradual and phased implementation of the model.	Provinces are diverse and have contextual and specific needs that motivate (or inhibit) the uptake of new initiatives.
Defined scope of practice for GPs in the network.	The GP Model to date has been molded to fit the needs of the North West province and its expanded GP network. Formative research would be needed to identify unique program constraints/opportunities to support scale-up in other areas.
BRHC paid personnel located at the Tshepong Hospital Wellness Center, including a program coordinator, and support personnel.	Lack of provincial DOH funding for sustaining activities of the program. Differing perspectives on the degree of provincial DOH involvement and oversight of the program to date.
Established BroadReach Healthcare project office and staff members at Tshepong Hospital/Wellness Clinic.	Lack of a structured partnership or secretariat at provincial level to own, manage, and document the results of this and other new partnerships.
Clear and established lines of communication with the BroadReach Healthcare project office including quarterly meetings between participating GPs, BroadReach Healthcare and the DOH to review program progress.	Lack of a structure to communicate the merits of the private GP model to other districts and provinces within South Africa, and to lobby for inclusion of public funding for the model's sustainability, expansion and/or replication.

FINANCING FOR SUSTAINABILITY

It is imperative to highlight that discussions related to eventual hand-over of responsibility and financial sustainability were held between BRHC, the North West DOH, Tshepong Hospital staff, and other key partners during the inception phase of the program. Consultation fees for the contracted GPs, eventual absorption of those costs by the DOH, program roles and financial responsibilities of the partnership, and DOH commodity provision (i.e., ARVs, laboratory and imaging diagnostics) were all issues negotiated before the program rolled out. As BRHC and PEPFAR continue to move toward a technical assistance version of support, with a decrease in direct funding to GP consultation fees and other program administrative costs, the planned absorption of program costs and responsibilities by the DOH becomes more critical. As BRHC's PEPFAR funding shifts toward a technical assistance model, discussions regarding the full financial absorption of the BRHC GP model by the provincial DOH are ongoing. As reported by BRHC, the intent of both parties is to facilitate the eventual PDOH absorption of BRHC staff and GP consultation costs. However, for the purposes of sustainability the use of BRHC's electronic data systems (AfA) has been determined unfeasible and the use of DOH databases and information management programs is being explored for the long-term. The results of the cost analysis outlined in this brief also have significant implications for long-term sustainability. On one hand, higher total and average costs mean that governments, if they were to take over

responsibility for financing the private GP model, would be required to allocate more of their budget to this program than the status quo public model. However, as the higher overall program costs were a possible reflection of improvements in patient retention, this is an indication of program success rather than a potential financial burden. As governments seek to rapidly expand access to meet public need for ART, private GP models may be preferable due to greater cost efficiency per additional patient (and more effective retention) based on the impact evaluation. However, as noted earlier, indications of improved health outcomes (such as better viral suppression) in the private GP model cannot be solely attributed to the care model.

While the DOH currently covers the cost of ARVs and laboratory diagnostics, the private GP consultation fees (110 Rand) were negotiated to be financially viable for the DOH to assume. However, it is unclear whether or not governments would choose to continue the private GP model as PEPFAR withdraws its financial support as part of the planned transition to country ownership and a renewed focus on technical assistance. Currently, PEPFAR funding through BRHC covers the cost of GP clinical consultation, Aid for AIDS data management, training contracted GPs and Wellness Clinic staff, patient adherence support, program management support, and BRHC program management (including patient monitoring and follow-up). Negotiating these fees as part of partnership development will significantly assist the North West DOH in mainstreaming the BRHC private GP model into the provincial health system. Such discussions related to transition of partnership roles over time, absorption of negotiated financial responsibilities, and a timeline for transition of responsibility to local health leadership are all critical in ensuring the long-term success and sustainability of such models.

4. CONCLUSION AND DISCUSSION

This brief presents an overview of the design, implementation and initial impact of a private GP down referral model for routine ART services in a heavily HIV-affected region of South Africa. Recognizing constraints on public sector resources to meet public demand and need for ART initiations, the private GP model was implemented in 2005 to increase access to ART in the short to medium term in the Matlosana sub-district of North West Province.

The purpose of this brief is to inform key stakeholders, including donors, policymakers, private practitioners, and ministries of health about viable mechanisms of private health sector engagement in the extension and scale-up of ART service delivery. In the common resource-poor context of expanding ART eligibility and saturation of public service capacity to meet public ART demand, such private sector engagement models hold tremendous potential in strengthening national ART programs.

South Africa, like many other high prevalence settings, has in some ways been penalized for its success in mounting an effective HIV response. As more PLHIV are successfully initiated on treatment, as high risk populations such as pregnant women more consistently seek care, and as WHO/South African eligibility revisions have significantly increased the number of people awaiting treatment, there is an urgent need to use resources more effectively and to seek additional sources of health sector capacity. Private health sector engagement mechanisms such as down referral and/or contracting out, particularly in the context of declining or stagnant external donor funding, present a strong option to expand health sector capacity to meet public ART need.

Outcomes of the BRHC private GP down referral model in Matlosana (in particular more effective patient retention) indicate strong potential for such private sector engagement mechanisms. While the private GP model incurred higher total and average costs, examination of the marginal benefit of each patient retained in down referral with successful viral suppression indicates that the model realizes greater cost efficiency, suggesting that this is a viable option for South Africa and other African countries to explore in seeking to expand access to HIV treatment and chronic care.

Several factors, such as buy-in from key stakeholders, the availability of a strong physician network (e.g., K.O.S.H.M.E.D.), and informed decisions about model design in harmony with national health policy, played a role in the successful implementation of this model in North West province. However, while the private GP model has potential for replication in other South African provinces as well as other countries, stakeholders would need to factor in patient needs and human resource constraints, HIV prevalence and demand for ART, as well as the costs and performance of existing public ART service delivery models. The BroadReach down referral experience with private GPs suggests that operational and financing mechanisms, such as

contracting-out, can effectively engage the private health sector in strengthening a health system's response to the HIV epidemic.

While the down referral model in Matlosana has succeeded in providing a viable option for HIV treatment via the private health sector, questions remain about the long-term sustainability of such a model. First, given the program's current reliance on PEPFAR funding for key program features such as the strong HMIS and patient follow-up system, the ability of government to sustain and replicate such models with local finances requires consideration.

In the case of the BRHC model, financial sustainability was given consideration during program inception, making the program transition phase less detrimental to the program's continued operations. Second, as has recently been demonstrated in Gauteng province by the South African nonprofit organization Right to Care, that government-financed down referral mechanisms may become more critical in light of South Africa's ongoing transition of PEPFAR funding to models of technical assistance. Third, policymakers and researchers should explore contracting out and down referral options in the context of task shifting. Empowering nurses with an expanded HIV scope of work (such as permitting nurse-initiated ART through medical directive) in the private for-profit and nonprofit sectors can further assist in addressing health system constraints in the adequate coverage and provision of HIV care and treatment. Evidence from Rwanda,³ South Africa,⁴ and Uganda⁵ demonstrate that when nurses receive appropriate training and supervision, patients do just as well under nurse-initiated and nurse-managed ART as they do under the care of a physician. This is clearly an area requiring further study.

In closing, the BRHC private GP down referral model in North West Province South Africa demonstrates the positive effect that the private health sector can have in reducing public sector ART roll-out constraints, and how private health sector engagement can assist in complementing and strengthening public sector service delivery. Stakeholders or policymakers seeking to replicate this down referral model should consider its key features of success: including open and transparent partnerships, strong communication, integration with national policy and health strategy, preparing early for financial sustainability, and ensuring that government ownership and involvement are pursued throughout program inception and implementation. Importantly, the BRHC model standardized the MOUs signed in each of the three roll-out sites – Klerksdorp, Mafikeng, and Potchefstroom. This facilitated the participation of private GPs in HIV service delivery by involving the DOH from the outset via standardized tools of engagement. In seeking to replicate or reproduce the BRHC model such consistency or standardization can help facilitate public-private engagement; however since many high-HIV prevalence settings are contextually diverse, contracting models will also need to be developed within local realities and with the priorities of all partners in mind.

³ A pilot conducted by Family Health International Rwanda between September 2005 and March 2008 revealed that, among the 435 patients initiated onto ART, 88 percent were alive by March 2008, 6.7 percent had died, and 3 percent were lost to follow-up. No cases of stopped treatment were reported. These success rates were comparable to physician-provided care (Shumbusho et al., 2009).

⁴ Peer-reviewed evaluation of nurse-initiated ART has been promising. For example, Doctors Without Borders has worked with nurses in the South African town of Lusikiski to initiate HIV treatment in 12 clinics. These clinics have produced faster patient enrolment, greater patient accessibility, and a decline in patient loss to follow-up from 19 percent to 2 percent (Bedelu, 2007).

⁵ Alternative care models in Uganda showed in a retrospective cohort study of health workers and nurses providing community-based ART (2003–2005) that 72 percent of patients were actively on therapy approximately two years after enrolment with 86 percent of patients experiencing a viral load of <400 copies per millilitre.

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