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**Piloting ART in South Africa:
The role of partnerships in the Western
Cape's provincial roll-out**

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Piloting ART in South Africa: the role of partnerships in the Western Cape's provincial roll-out

Abstract

In 1999, the provincial government of the Western Cape entered into a partnership with Médecins Sans Frontières (MSF) to provide HIV treatment through public health clinics in the peri-urban settlement of Khayelitsha. From 2000 onwards, this partnership ran South Africa's first antiretroviral treatment (ART) programme. Due to the province's limited experience in 1999 in implementing and monitoring an ART programme, and the National Health Department's opposition to the public provision of ART, this partnership was instrumental in piloting and later scaling-up the Western Cape's ART programme. The partnership demonstrated that ART programmes could be implemented successfully within resource-constrained settings, with high levels of adherence, low rates of loss to follow up, and excellent health outcomes. Its components and strategies are therefore of vital significance to the roll-out and maintenance of ART programmes in various contexts across the developing world. Based on information gathered through interviews with key players, this article examines the factors that facilitated the public provision of ART in the Western Cape. With a focus on Khayelitsha, it explores the partnerships that were established between the provincial government, civil society organisations, research institutes and service providers to support and expedite the public provision of ART.

Introduction

South Africa has the largest HIV epidemic in the world with approximately 5.7 million people living with HIV (UNAIDS 2008). At present, over 1 million people living in South Africa have initiated antiretroviral therapy (ART) (Republic of South Africa 2010). Because of the opposition of high-ranking political figures, including President Mbeki and Health Minister Tshabalala-Msimang, South Africa's public provision of ART began relatively late. It was not until the end of 2005 that all of South Africa's nine provinces had initiated pilot programmes for public access to ART (Baleta 1999; Cohen 2000).

According to Nattrass (2008) and Chigwedere *et al.* (2008), the delays in public provision of ART resulted in the loss of over 330,000 lives during Mbeki's presidential tenure. The opposition party, the Democratic Alliance, was in political control of the Provincial Administration of the Western Cape in 1999, the year in which the ART pilot began.¹ The city's relative autonomy enabled its Health Department to pilot an ART programme, and it did so in contradiction of the policies of the National Department of Health, which officially opposed the public provision of ART at this time.

In 1999, the province established a small pilot programme for the prevention of mother-to-child-transmission (PMTCT) of HIV at two midwife obstetric units in Khayelitsha. Situated thirty kilometers outside Cape Town, Khayelitsha is a densely populated township, with 46% of its approximately 500,000 residents characterised as unemployed in 2002 (Boulle *et al.* 2010: 564).² Residents live in a combination of formal and informal housing, and over 80% of household dwellings classified as informal (Scott *et al.* 2005). The HIV prevalence rate in Khayelitsha is among the highest in the province (MSF & Infectious Diseases Epidemiology Unit at the University of Cape Town, 2003a). In 2007, Khayelitsha's antenatal prevalence was 30.2% (MSF *et al.* 2008).

Due to the Health Department's opposition to ART provision, public funding, infrastructural and institutional support for the Western Cape's ART pilot programme were lacking. Key actors working within the Provincial Administration of the Western Cape therefore established a partnership to facilitate its ART roll-out, and to raise external funding to finance the ART pilot. This partnership was constituted by a range of actors and organizations,

¹ The Provincial Administration of the Western Cape is now known as the Provincial Government of the Western Cape.

² The actual population of Khayelitsha remains unknown. This figure is drawn from the 2001 census and is widely considered to be underestimated.

including the Provincial Department of Health, independent health providers, civil society organizations, international donors and academic research institutes.

Methodology

As the first of the partnerships established between the Provincial Health Department, NGOs and other service providers, this research focuses on the Khayelitsha partnership constituted by the Provincial Health Department, Médecins Sans Frontières (MSF) and the Treatment Action Campaign (TAC). This article also describes the province's relations with other organisations and institutes that composed the wider partnership to pilot and then scale up ART in the Western Cape. It describes and assesses the partnership that facilitated public access to ART in the Western Cape. It is based on primary historical and qualitative methodologies, including in-depth interviews with key informants, analysis of documentary sources concerning the partnership's establishment and evolution, and supplementary research on secondary sources evaluating the partnership's outcomes. Extensive research has been conducted on the Khayelitsha ART pilot (Coetzee *et al.* 2004; Coetzee *et al.* 2005; Boulle *et al.* 2008; Boulle *et al.* 2010). However, most studies have focused on the implications of the roll-out for health systems at provincial and national levels, and on the clinical outcomes of the programme. This research focuses instead on the partnership that facilitated the pilot's success from the perspectives of its key participants, assessing the challenges it faced, describing the functioning of its various components, and evaluating its organizational strategies and outcomes.

Findings

The Western Cape's introduction of prevention of mother-to-child transmission of HIV

In January 1999, the Health Department of the Provincial Administration of the Western Cape initiated a pilot PMTCT programme at two midwife-run obstetric units in Khayelitsha. The programme was based on evidence from clinical trials elsewhere in the world which demonstrated a reduction in mother-to-child-transmission of HIV of 50% as a result of PMTCT interventions (Abdullah *et al.* 2001). At this early stage of ART provision in South Africa, local clinicians had begun initiating patients onto ART through the private sector and through clinical studies. The knowledge and experience gained by these clinicians meant

that they were able to advise and support the province in the Khayelitsha pilot as well as subsequent treatment initiatives, particularly regarding the components of ART protocols (Bouille *et al.* 2008). The communication networks that were established between clinicians and public health specialists working across the public and private sectors therefore provided valuable channels for sharing information during the early years of ART initiation in South Africa. In late 1999, MSF entered into a partnership with the Western Cape provincial government and began supporting the Khayelitsha PMTCT programme.

According to Eric Goemaere, the previous head of MSF South Africa and currently the organisation's Medical Co-ordinator, the reasons for MSF's involvement in the PMTCT initiative were threefold (pers. comm. Goemaere 2010). Firstly, South Africa's high HIV prevalence and the relative advancement of its epidemic meant that there were large numbers of people in need of treatment. Secondly, MSF was encouraged by South Africa's apparent commitment to challenging patent laws preventing the local production and import of generic drugs.³ The state's attempt to challenge the pricing regime of the pharmaceutical industry drew MSF's attention as a brave political move that cohered with its own objectives of promoting better access to medicines in the developing world. And thirdly, MSF hoped to introduce issues around access to ART at the 2000 International AIDS Conference in Durban, in order to push the issue of universal access onto international development and public health agendas. The partnership with the Provincial Administration would provide valuable opportunities to gain experience and conduct research on providing public access to ART in resource-constrained settings.

Initially MSF had considered starting a PMTCT programme in Alexandra, a densely-populated township in Johannesburg. Goemaere visited a public health clinic in Alexandra, and was well-received by health workers who were 'excited' by the idea of establishing a PMTCT pilot there (pers. comm. Goemaere 2010). However, after this enthusiastic reception, he traveled to Pretoria to meet with officials at the National Department of Health to the

³ This perception was based on government's modifications to the Medicines and Related Substances Control Act in 1997, which proposed the local production and import of generics. These modifications were met with a legal challenge by the Pharmaceutical Manufacturers Association to the South African government, backed by powerful political actors. South Africa was added to a watch list of countries whose attempts to reduce the prices of essential medicines were regarded as a challenge to international patent law, embodied in the World Trade Organisation's regulations on Trade-Related Aspects of Intellectual Property Rights. The amended Medicines and Related Substances Act was never passed. Instead, government reached an out of court settlement with the pharmaceutical industry that encouraged reduced antiretroviral pricing, but did not challenge the industry's patents and pricing regime (Orrell *et al.* 2003).

PMTCT pilot to them. There he learned that high-ranking officials within the National Department were opposed to piloting PMTCT. Although there was one influential government official who supported the initiative, her superiors within the Ministry, under the leadership of Health Minister Nkosazana Zuma, vetoed the proposal.

Bewildered by the response of the national government, Goemaere prepared to leave South Africa. However, he received word from members of the Treatment Action Campaign, an HIV activist group advocating for public access to HIV treatment, that the Western Cape Health Department had started a PMTCT initiative in two antenatal clinics in Khayelitsha. Information networks between key actors working within HIV research and advocacy again yielded important information. Goemaere travelled to Cape Town to find out more about the Khayelitsha programme, where he discovered that it was operational but ‘very low-key’, because the province ‘didn’t want the national [government] to know about it’ (pers. comm. Goemaere 2005). The province was able to provide access to ART due to its autonomy from the ruling ANC (*ibid*).

Through his connections with TAC leaders, Goemaere was introduced to Saadiq Kariem, the clinician who was heading the PMTCT pilot in Khayelitsha. They worked together at the PMTCT clinic to establish a monitoring and evaluation (M&E) system for the programme, and to expand it through the introduction of a post-natal phase. Prior to that, the pilot had provided AZT monotherapy to pregnant women, but no post-natal treatment for them or their infants (pers. comm. Goemaere 2010). Goemaere approached researchers at the School of Public Health, University of Cape Town (UCT) to help develop the programme’s M&E systems further.⁴

In December 1999, once Goemaere had established ‘anchorage’ with the PMTCT pilot, he approached the provincial administration in order to formalize the collaboration. Goemaere met with Fareed Abdullah, Director General of the Western Cape Department of Health, and the head of the province’s HIV management team, to suggest that the Provincial Administration establish a partnership with MSF to broaden the scope of HIV services offered in Khayelitsha. Abdullah was initially very ‘cold’, because he feared that MSF would draw publicity to the programme, resulting in its closure by the National Department of Health (*ibid*). After an extensive negotiation process, Abdullah consented to Goemaere’s involvement in the PMTCT programme, but solely in his personal capacity as a clinician and researcher rather than as a representative

⁴ As of March 2011, the Western Cape remained the only province with a sufficiently strong M&E system to be able to report monthly on its ART programme.

of MSF. This was to protect the PMTCT programme from the National Health Department, and is an example of the strategies used by key actors within the partnership to circumvent national government's restrictions on public ART access.

In April 2000, the partnership between Goemaere and the Western Cape administration was formalised. MSF's support roles included providing postnatal care, establishing a voluntary HIV counselling and testing (VCT) service within the clinics, and training the nurses on the PMTCT programme. At the beginning of 2001, most of the HIV testing was done at the two antenatal clinics providing PMTCT. However, in 2002, the Provincial Health Department extended VCT services to all primary health clinics in Khayelitsha, and integrated testing services with tuberculosis, family planning and sexually transmitted diseases programmes. The extension of VCT services resulted in a rapid increase in annual totals of HIV tests conducted in Khayelitsha, from 450 in 1998, to over 32,000 in 2007 (MSF *et al.* 2008)

The pilot demonstrated clearly that PMTCT could be effective in resource-limited settings (MSF *et al.* 2003b). In 2001, the PMTCT programme was expanded to more than 300 antenatal and child health clinics in the Western Cape (Abdullah 2005a).

Piloting HAART

In April 2000, the partnership between the Provincial Administration and MSF opened three dedicated HIV treatment sites within primary health clinics in Khayelitsha. These clinics provided treatment and support for opportunistic infections, but at this stage excluded ART. However, a few months later, in May 2001, the same two clinics that had begun providing PMTCT in early 1999 began initiating patients onto ART. This treatment pilot was facilitated by the partnership between MSF and the provincial government, and was South Africa's first public provision of ART beyond the purpose of PMTCT (MSF *et al.* 2003a).

The pilot was initiated to demonstrate that public ART provision was feasible in primary health care settings and resource-limited environments (MSF *et al.* 2003b). In its early months, the programme met with resistance from nurses, who feared that they would be infected with HIV from their contact with patients (pers. comm. Goemaere 2010). Nurses also believed that the programme would fail because stigma would prevent people from seeking testing and treatment. But after the clinics had been open for a matter of months, they were 'packed'. Goemaere

explained that: ‘As soon as people discovered there was a possibility to have a service for HIV, they ran for it...’ (*ibid*). As of August 2008, Khayelitsha’s ART roll-out had expanded to seven sites, and over 10,000 people had initiated treatment through the programme. As of July 2008, over 93% were alive and remained in care, demonstrating high rates of retention (MSF *et al.* 2008).

Initially the programme was run exclusively by MSF. Increased staff capacity at the three clinics resulted in over 40,000 consultations in 2004 (Provincial Administration of the Western Cape, Department of Health 2005b). The baseline CD4 count of people starting ART increased from 48 in 2001 to 131 in 2007 (MSF *et al.* 2008; Boulle *et al.* 2010: 563). Patients were therefore initiating treatment at an earlier stage in their disease progression, with concomitant positive effects on health outcomes and declining mortality rates (Boulle *et al.* 2008: 683).

Shortly after the introduction of the three MSF clinics, the HIV Research Unit at UCT, together with AIDS Directorate of the Western Cape and the Community Health Services Organisation, established an ART clinic in Gugulethu (Bekker *et al.* 2003). Funding for the programme was provided by UK-based charities, and researchers established a monitoring study to measure the programme’s outcomes (*ibid*). As with the partnership between MSF and the Provincial Administration, the aim of this partnership was to prove that ART could be provided sustainably and effectively using an easily replicable model of service delivery. The study also aimed to counter the contention circulating within international aid and development circles that patients living in sub-Saharan Africa should not be given public access to ART because of expectations of poor adherence. Even in the absence of formal adherence interventions, the study showed that these expectations were unfounded. The levels of adherence and viral suppression it demonstrated were similar to, or better than, those that had been reported in most observational and clinical trial cohorts in developed countries (Orrell *et al.* 2003). The study therefore demonstrated that low socio-economic status and the absence of formal adherence interventions were not barriers to successful patient adherence to ART.

In addition to the partnerships it had established in Khayelitsha and Gugulethu, the Provincial Health Department established formal alliances with other NGOs and research initiatives working in public health facilities around the Western Cape (pers. comm. Cloete 2005). From 2000, the Western Cape expanded its partnership base to support the roll-out of ART in other clinics. With the resources provided through these partnerships, by the end of 2003 the Western Cape had established ARV sites in clinics in Gugulethu, Khayelitsha (3 sites) and Langa, and at hospitals including G F Jooste, Tygerberg, Red Cross and

Groote Schuur (Abdullah 2005a). The partnership with the organisation Kidzpositive at Groote Schuur Hospital improved the quality of paediatric ART services available in the public health sector (Abdullah 2005a). In 2003, the Provincial Administration included the organisation Absolute Return for Kids (ARK, which has since borne another treatment provision NGO named Kheth'Impilo) in its ART partnership. ARK assisted with the scale up of new ART sites by incorporating a team of doctors, nurses and pharmacists to improve capacity at ARV sites (pers. comm. Cloete 2005).

Grant SAF-304-G04-H: 'Strengthening and expanding the Western Cape HIV/AIDS prevention, treatment and care programmes'

Due to Department of Health's opposition to the public roll-out of ART prior to 2003, the funding required by the Western Cape to expand access to ART in the province was unavailable through ordinary channels of state revenue. The Western Cape therefore began to explore means of procuring external funding to finance the scale up of the pilot programme. It submitted its first proposal to the Global Fund to fight AIDS, Tuberculosis and Malaria as a part of Round Two of the Global Fund's grant submissions, but the application failed. This was the result of weaknesses in the overall application submitted by the South African National AIDS Council (SANAC), South Africa's Country Coordinating Mechanism (pers. comm. Boule 2005). The Global Fund's report on South Africa's application cited the following reasons for its decline: the Country Coordinating Mechanism had not developed adequate impact indicators and targets; it had excluded a work plan in its summary document, it had failed to provide unit costs or a budget for drugs expenditure, and it had included an unjustifiably high contingency amount of \$10 million (Global Fund 2003).

At the time of SANAC's submission to the Global Fund, a disagreement unfolded between national government officials, including Health Minister Manto Tshabalala-Msimang, and the Global Fund Secretariat. The source of the conflict was the Global Fund's grant to the province of KwaZulu-Natal, which included funding for ART provision. Department of Health officials alleged that the proposal had been submitted to the Global Fund prior to obtaining official approval (Cullinan 2003). The relationship between SANAC and the Global Fund deteriorated, derailing all of the constituent applications. In April 2003, Richard Feachem, the Executive Director of the Global Fund, traveled to South Africa to meet with government with the aim of solving the issues around the

grant and finalizing the Global Fund's agreement with SANAC. However, the problems proved intractable, and the negotiations failed.

By this time, the Khayelitsha ART pilot programme was 'up and running' and had 'sparked Feacham's interest' (pers. comm. Goemaere 2005). The programme was gaining renown gradually, particularly after its use as a case study on best practices in ART provision in a publication by the World Health Organisation (*ibid*; MSF *et al.* 2003b). MSF and the Provincial Administration invited Feacham to visit the three Khayelitsha sites, where they demonstrated the successes of the programme in terms of increased enrolments, high rates of adherence to treatment, increased rates of PMTCT, and increased CD4 counts at the time of enrolment (pers. comm. Goemaere 2010). As a result, Feacham encouraged key figures within the partnership to submit another application for a Global Fund grant.

In contrast to the National Government, which had 'blocked' the Global Fund grant to the provincial Health Department of KwaZulu-Natal, the Western Cape Provincial Administration and its partners were 'ready and keen' to expand their pilot ART programme (pers. comm. Goemaere 2005). The Global Fund requested that the provincial government draft a second proposal, and advised key leaders within the provincial Health Department to include its partners in the drafting process. The second proposal was therefore more inclusive, involving a number of NGOs and research institutes. Officials from the Western Cape Provincial Administration worked hard on the application, putting in hours of overtime and working late into the night (pers comm. Goemaere 2005).

The application was re-submitted by the Western Cape Provincial Department of Health in May 2003, and the Global Fund began its assessment. As a part of this process, the Global Fund hired KPMG, an accounting firm, to examine the province's health management infrastructure. KMPG found weaknesses in the management and functioning of the Western Cape medical depot, including inefficient procurement and delivery systems. It recommended that the province improve the functioning of the medical depot before its application would be finalised (pers. comm. Abdullah 2005). Within six weeks, the province had established a separate medical depot dedicated to ART. This provided a short-term solution, allowing it to establish efficient drugs ordering and distribution processes which bypassed the existing medical depot. This met KPMG's requirements, and the final grant agreement was signed in August 2004 (Global Fund 2006).

The first disbursement of funds arrived in October, and was, at that time, the largest grant awarded by the Global Fund to a provincial department (Provincial Administration of the Western Cape 2003b). The grant was to strengthen and

expand the province's comprehensive HIV/AIDS programme, with a total value of US\$66,5 million spaced over a period of five years (see Table 1 for a breakdown of costs for the grant's first two years). The Global Fund invested heavily in the programme because it realised its potential for increasing the demand for treatment, and for exerting pressure on government to implement a national ART programme. In this sense, the Global Fund's awarding of the grant to the Western Cape was a means of 'twisting government's arm' (pers. comm. Goemaere 2010). The Western Cape's ART pilot also accorded with the Global Fund's focus on capacitating local governments because the programme presented a clear exit strategy, after which the Provincial Administration would assume responsibility for running and maintaining the programme (*ibid*).

Table 1: The first two years of the Global Fund grant

The four objectives of the Global Fund grant:	Year 1 (USD)	Year 2 (USD)	Total (USD)
ARV Treatment / Operational Research	3,560,083	5,607,623	9,167,706
Peer Education	876,928	932,653	1,809,581
Palliative Care	858,857	1,586,429	2,445,286
Community-Based Response	866,714	1,220,069	2,086,783
Total	6,162,582	9,346,774	15,509,356

(Source: adapted from Western Cape Department of Health 2004c.)

Within the first two years of the grant, the Global Fund provided funds for ARV treatment sites within five community health clinics in the metropolitan region of Cape Town. These were the community health clinics of Gugulethu, Khayelitsha Site B, Khayelitsha Site C, Michael Mapongwana, and Masiphumelele. As explained above, each of the five sites was run by the Provincial Administration in tandem with an NGO or clinical research institute, and all were pilot research sites prior to receiving support from the Global Fund. This was a deliberate strategy by the Provincial Administration to channel funds into programmes that were already established, and to ensure that funds were spent on scaling-up rather than initiating programmes (pers. comm. Abdullah 2005).

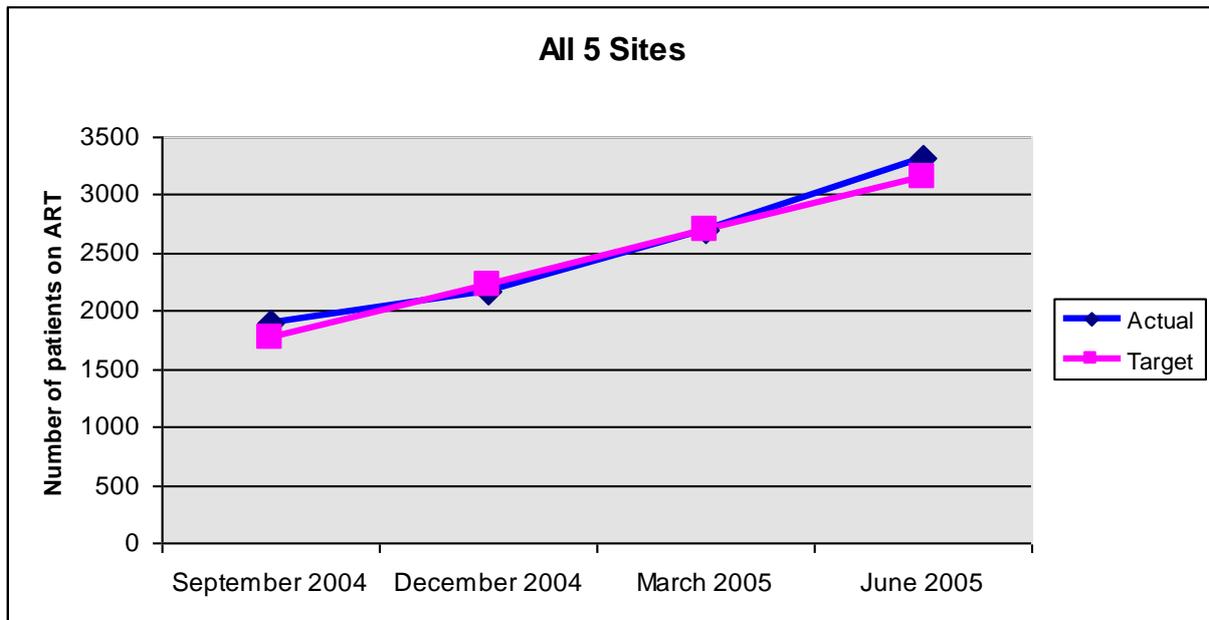
Table 2: Global Fund Grant Objective 1, ARV Treatment Year 1

Key Indicators			Intended results/targets in year 1			
			Quarter 1	Quarter 2	Quarter 3	Quarter 4
Objective 1	Cumulative number of patients started on ARV treatment at 5 sites	Gugulethu	410	560	710	860
		Khayelitsha Site B	490	580	670	760
		Khayelitsha Site C	395	470	545	620
		Khayelitsha				
		Michael Mapongwana	375	450	525	600
		Masiphumelele	95	170	245	320
		Total	1765	2230	2695	3160

(Source: Adapted from the Global Fund Monitoring and Evaluation Plan, Western Cape Department of Health 2004.)

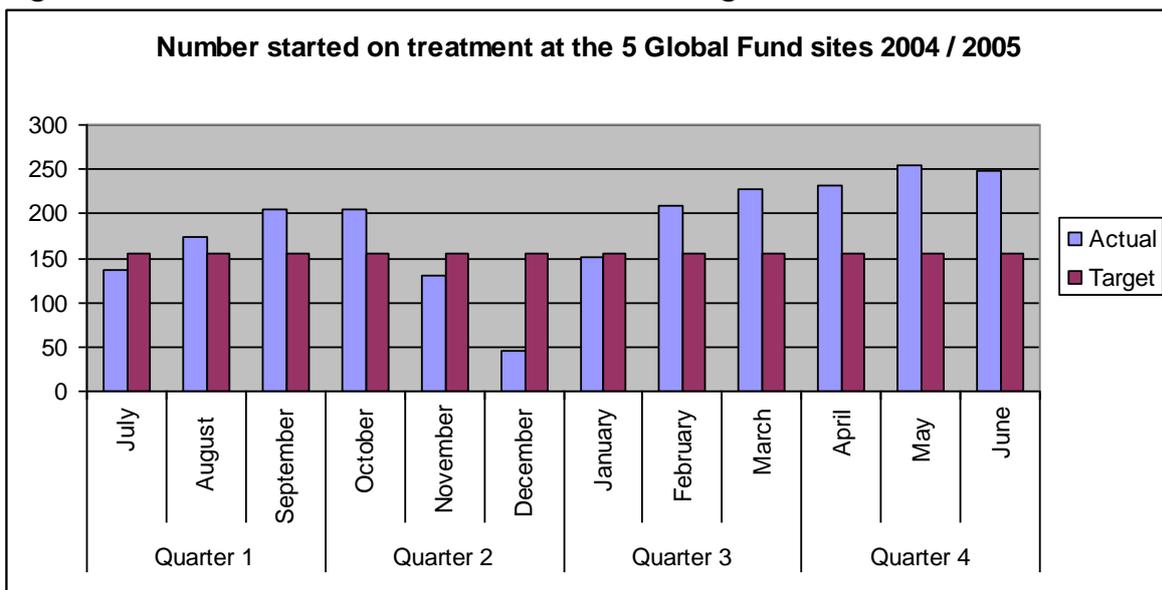
Each clinic was given specific targets for the number of patients initiated onto ART (as seen in Table 2), and the success of the grant's ART component was measured by the cumulative number of patients on treatment at each of the sites. Data about the number of patients initiating treatment and the number of patients discontinuing treatment were also captured for progress reports. The sites generally managed to meet or exceed their ART initiation targets. Default rates, as patients were lost to follow-up, discontinued treatment or died, affected the cumulative number on ART. In the first year, a total of 334 patients discontinued treatment and some clinics performed slightly under target. Despite this, the grant exceeded its targets, both in terms of initiating new patients onto ART and in the total number of people on treatment. Figure 2 illustrates the success of the grant in initiating new patients within the first year. The original target was to initiate 1 860 patients onto ART within twelve months, but this target was exceeded by 356 patients, with 2 216 being initiated. By the end of June 2005, 3 319 patients had been initiated across the five sites.

Figure 1: Number of patients on ART at the five Global Fund sites by the end of June 2005



(Source: Provincial Administration of the Western Cape 2005c.)

Figure 2: Number started on treatment at 5 global Fund Sites



(Source: Provincial Administration of the Western Cape 2005c)

The Western Cape's provincial scale up of ART

In July 2002, TAC won a court victory against the Department of Health which compelled government to roll-out a PMTCT programme in the public sector (Natrass 2007). Subsequently, TAC began to advocate for the establishment of a national programme of ART. During President Thabo Mbeki's 'State of the Nation' address on 14 February 2003, approximately 15 000 people marched to parliament in protest against government's delays in ART provision (*ibid*). Shortly thereafter, Health Minister Tshabalala-Msimang briefed the Parliamentary Health Portfolio Committee on the importance of nutritional interventions in treating AIDS, citing the work of AIDS dissident Robert Giraldo who claimed nevirapine was toxic and that optimal nutrition could prevent and treat AIDS (Giraldo 2002). In response, TAC launched a civil disobedience campaign. Activists occupied police stations and government buildings, and laid charges of murder against senior government officials.

By August 2003, high-ranking, internal opposition to Mbeki and Tshabalala-Msimang's HIV response had gained momentum, and Cabinet released a statement in support of a national ART programme. In November 2003, the Operational Plan on Comprehensive HIV and AIDS Care, Management and Treatment for South Africa was published, committing government to the establishment of at least one ART pilot site within every health district within the next year (Department of Health 2003).

Following Cabinet's commitment to the Operational Plan, the Western Cape built on the success of its ART pilot programmes funded by the Global Fund, and began to scale up ART provision through public health sites from 2004 onwards (Abdullah 2005a). Due to the working knowledge of operational issues that the province had gained from the pilot PMTCT and ART projects, it developed a strategy for the province-wide roll-out of ART (pers. comm. Cloete 2005).

The province's roll-out was conducted according to a detailed implementation plan, updated every month, in order to ensure that targets were met. The province used the demographic and epidemiological model developed by the Actuarial Society of South Africa (ASSA) to predict the total number of patients in need of treatment. The ASSA model also predicts the proportion of people with HIV by disease stage, therefore allowing for global annual estimates of patients requiring treatment. These estimates were converted into site-by-site estimates of treatment demand, although this process required some guesswork (Abdullah 2005b). As a result, broad estimates were calculated for high, medium

and low prevalence areas, and this data informed the provincial Health Department's placement of ART sites.

By April 2004, by which time the national ART programme had been launched, the Western Cape had 16 ART sites, 8 of which were integrated into primary care clinics (Boulle *et al.* 2008: 679). The programme's average monthly enrolment rate increased rapidly between 2004/05 and 2008/09 (see Table 3). By mid 2008, there were 79 public health clinics offering ART in the Western Cape, and overall, 50 846 adults and 5 282 children had initiated ART in the province, totaling 56 121 (Western Cape Department of Health 2009).

Table 3: Western Cape provincial ART programme average enrolment per month

Year	Average enrolled per month	Range	Increase from previous year
2004 – 2005	494	(269 – 1600)	-
2005 – 2006	843	(550 – 1 165)	70.6%
2006 – 2007	1 048	(603 – 1 189)	24.30%
2007 – 2008	1 171	(684 – 1 600)	11.70%
2008 – 2009	1 737	(1 212 – 22 79)	48.30%

(Source: Western Cape Department of Health 2009)

Discussion

The role of the Western Cape's ART partnership

In interviews with key players in the partnership, numerous informants highlighted the importance of the symbiotic working relationships established between key figures in civil society, MSF and the Western Cape Administration, helping to strengthen synergies between the organisations. For instance, Goemaere described his relationship with Abdullah as his best professional relationship in thirty years of clinical practice (pers. comm. Goemaere 2005). The partnership established to expedite access to ART was described by Abdullah as the 'main factor' in the success of the provincial roll-out (*ibid*). In describing the efficacy of the partnership, Abdullah wrote: "We were all on one side – the virus on the other" (Abdullah 2005a).

The decision to involve civil society and establish partnerships with MSF and other non-profit health service providers and research institutions was taken by the provincial administration's HIV management team, led by Abdullah. Because he was also the Director General of Health in the province, Abdullah was positioned well to implement and manage the programme, drawing on alliances within government and between partner organizations and donors. Initially, the partnership established to pilot the ART roll-out managed to circumvent many of the issues stemming from the lack of national funding for the programme. It did this by capitalizing on the resource capacities of its partner organisations. The Global Fund provided the money to finance the programme, and academic institutions helped to establish and implement M&E systems, and conducted the operational and clinical research that established best practices for scale up. TAC mobilised community support for the ART programme and helped to create an enabling environment for people to live openly with HIV.

Through the strategic use of MSF resources and personnel in the roll-out of PMTCT, Abdullah was able to cushion the project from opposition by the National Health Department. According to Goemaere (pers. comm. 2010), the pilot was represented as 'private research', when it was 'in fact a governmental site'. At the same time, the experience gleaned from the PMTCT pilot could be used to inform the provincial scale up which started in 2001, and which continued rapidly after the passing of the Operational Plan in 2003.

Although the Provincial Department of Health would have succeeded in making the pilot ART sites operational, MSF accelerated the rates of treatment coverage, coordinated the training of healthcare workers onsite, and improved the quality of clinical care. Boulle described Khayelitsha as 'a very challenging surface context' (pers. comm. Boulle 2005). He explained that many NGOs would have avoided piloting an ART programme there because of the resource constraints and the heavy burden of infectious and non-communicable diseases. However, MSF's 'strong political and advocacy vision', particularly in light of South Africa's political opposition to treatment, provided the impetus to enter into a partnership with the provincial government (*ibid*).

The province's partnerships with MSF (operating from Khayelitsha), the Desmond Tutu HIV Centre (operating from Gugulethu), Absolute Return for Kids (strengthening clinical capacity at a range of clinics) and academic research units based at UCT were also integral to its successful performance in relation to the Global Fund grant (Abdullah 2005a). These partnerships provided the Provincial Administration with vital resources for the functioning of the ART pilot programmes, particularly in the early years of the rollout during which the

They conducted operational research projects which indicated that ART could be provided successfully and sustainably in resource-poor environments, and that adherence rates could match or exceed those in developing countries (Orrell *et al.* 2003). They also expanded the province's skills and knowledge base and augmented its human resource capacities.

Performance-based management

Abdullah and other key leaders of the programme strived to address the fragmentation in the provincial health service through a 'novel coordination mechanism' that was termed 'vertical support' (Abdullah *et al.* 2001). Managers and clinicians were integrated into a common decision-making structure that met regularly to formulate policy for the ART programme. As new ART sites were activated in the province, site managers and clinicians were brought into management structures. This ensured that managers were aware of the clinical challenges faced by healthcare workers, and also that clinicians were apprised of the managerial issues including administrative and infrastructural constraints within the public health sector (Abdullah 2005b). As a result, closely knit partnerships were developed internally between provincial health officials and their partners in the ART roll-out.

The management style of the HIV/AIDS team in Western Cape was a crucial factor in the success of the ART programme. Numerous informants emphasised the importance of an integrated management model and effective leadership in the programme's success. The management model aimed to meet the Global Fund's stringent performance requirements, to generate high quality data, and to monitor and evaluate the programme's outcomes, implementing changes required for improvements.

The implementation and management of the Global Fund grant was carried out within existing programmes in the provincial administration. With the exception of the special ARV depot, no parallel systems and structures were developed (pers. comm. Frankish 2005). A small number of additional personnel were appointed in the first year of the grant to coordinate the province's performance, including a Grant Programme Manager. This manager encouraged congruence between the broader objectives of the Global Fund (invested in funding ART 'success stories' in resource-limited settings) and the Western Cape provincial administration (which was going against national policies by providing public access to ART).

The management model for the Global Fund grant generated ‘energy... enthusiasm [and] motivation around the ART pilot’ (pers. comm. Goemaere 2005). The partnership’s working culture was characterised by high levels of motivation and integration. Informants emphasised how partners cooperated to manage challenges effectively (pers. comm. Cloete 2005; pers. comm. Slingers 2005). For instance, when clinics faced shortage of healthcare workers, leaders of partner organisations phoned experienced doctors and nurses to invite them personally to work at ART sites (*ibid*).

All staff members involved in administrative and managerial functions relating to the Global Fund grant met for monthly progress reports (pers. comm. Abdullah 2005). These meetings helped encourage staff to meet their targets and to establish a performance-based organizational culture (pers. comm. Naidoo 2005). Because of the political risks that the province was taking in providing ART in contravention of national health policy, key figures were highly motivated to ensure that the programme succeeded (pers. comm. Maartens 2005). Management systems were therefore developed to ensure the best outcomes for the programme, and were intended to enhance cooperation, integration, evaluation and continual improvement.

Many informants attributed the success of the ART pilot to the careful selection of managers on the team, and to the drive and commitment of the partnership’s key figures. Informants explained that high levels of expertise across different components of the programme, encompassing clinical aspects, drugs supply and distribution, resources management and reporting, were instrumental to the programme’s functioning, assessment and improvement. They ascribed the characteristics of charisma, courage and foresight to Abdullah, whose leadership style was understood as a central component in the programme’s success (pers. comm. Channing 2005; pers. comm. Slingers 2005; pers. comm. Maartens 2005). Abdullah conducted site visits regularly to ‘see for himself what was happening’. On these visits, he would gather together clinicians, managers and health workers working within the ART programme to assess its functioning collectively. He also focused on motivating staff, explaining how ‘they were pioneers, they were making history’ (pers. comm. Goemaere 2010). The result was that staff members felt inspired, and were willing to ‘walk extra miles, to make sure things were successful’ (*ibid*).

Involvement of civil society

From the onset of HIV treatment provision in the Western Cape in 1999, civil society organisations played a crucial role in mobilizing grassroots support

for the scale up of treatment and other medical and support services for people living with HIV (MSF *et al.* 2003b). Foremost among these organisations was TAC, whose access to medicines and HIV awareness campaigns made it an obvious partner for both MSF and the provincial government. By 2000, TAC had established numerous branches in the Western Cape, including a branch in Khayelitsha which aligned itself with the clinics that were providing ART to the surrounding community. TAC's efficacy as a community organizer and partner to the ART roll-out established a 'new social contract' around HIV in Khayelitsha, in which the clinics provided effective HIV treatment, and the community encouraged HIV disclosure, and promoted HIV prevention and treatment advocacy (*ibid*).

TAC conducted advocacy work to challenge HIV stigma, encourage people to test for HIV, and to mobilise thousands of community activists in support of public access to ART (*ibid*). On the local level, TAC established Project *Ulwazi* (knowledge) in which people living positively and openly with HIV would conduct awareness workshops in various contexts. In 2002, Project *Ulwazi* volunteers created a mobile exhibition called *Yazinzulu-i-HIV* (know more about HIV). The exhibition focused on testing, disclosure and positive living, and toured public spaces in Khayelitsha (MSF *et al.* 2003a). Local leaders from schools, churches and other community organisations were invited to join the workshops and discussions about HIV and human rights, to expand community awareness, and to generate support for the local testing and treatment programmes.

On the provincial and national levels, TAC built up networks with sympathetic journalists and produced its own HIV activist programmes on radio and television to mobilize public support for HIV treatment access (Hodes 2010a). Generating evidence-based and accessible content, TAC and its media partners educated the public about HIV prevention, transmission and treatment at a time in which high-ranking government officials were sowing confusion about the basic science of HIV and ART. TAC began its Treatment Literacy project in 2002, with the objective of training thousands of community activists through treatment literacy programmes. The Community Health Media Trust, a media production NGO, was founded by Zackie Achmat and Jack Lewis, both of whom were co-founders of TAC. The Community Health Media Trust worked closely with TAC, producing a series of treatment literacy videos which, from 2002, were screened in workshops run by trained peer educators in the Khayelitsha clinics. Peer educators were also equipped with portable audiovisual kits and copies of the *Treatment Literacy Series*, which they screened as part of their HIV education and advocacy workshops (Hodes 2010b). TAC's Treatment Literacy Project, with

the collaboration of the Community Health Media Trust, has been termed ‘the most important mass cultural project in South Africa in support of science’ (Natrass 2007).

Goemaere described TAC’s involvement with MSF and the Provincial Administration as the ‘main success factor’ in the ART partnership (pers. comm. Goemaere 2005). He explained that the provincial government and MSF had created a ‘technical proposal’ for the provision of ART in Khayelitsha, and that TAC generated the grassroots support that enabled the pilot to succeed practically through encouraging people to use the services, to disclose their HIV status, and to promote treatment access and adherence in the community. Keith Cloete, the Chief Director of the Metro District Health Services in the Western Cape, maintained that TAC’s community mobilization generated support for the treatment programme in ways which were beyond the scope of MSF and the provincial administration (pers. comm. 2005). This community connection was vital due to the initial antagonism towards the programme emanating from a range of sources, including, at the programme’s onset, the nurses working within the clinics (pers. comm. Goemaere 2010).

It is difficult to quantify the impact of TAC’s partnership with MSF and the Provincial Administration in the success of the Khayelitsha ART pilot. However, it is likely that TAC’s advocacy work and its awareness campaigns made a significant impact on the community’s understanding of the disease and the willingness of individuals to present for VCT. Research supports these claims. Parket *et al.* (2002) have shown that Khayelitsha residents are more willing to test for HIV, and have higher levels of condom use. A cross-sectional descriptive study that assessed inequalities of access to HIV services in the subdistricts in the Eastern Cape, Free State and the Western Cape indicated that the utilisation of HIV services including VCT and PMTCT was highest in Khayelitsha (Scott 2005).

TAC’s relationship with national government grew increasingly hostile after the 1998 decision by the Department of Health, under Minister Nkosazana Dlamini-Zuma, against providing public access to PMTCT programmes. However, its relationship with the provincial leadership of the Western Cape was strengthened through their collaboration on the province’s ART pilot programme. Because of the Western Cape’s provision of public access to ART, TAC was able to ‘affirm’ the province’s work, rather than ‘attacking’ it (pers. comm. Toms 2005). In turn, the Western Cape’s ART programme strengthened the collective identity of the ‘positive community’. Dozens of TAC branches

were established across South Africa as the treatment access movement gained momentum, and TAC's Khayelitsha base remains one of its strongest.

Health infrastructure

The public health system inherited by the ANC-led government was characterised by fragmentation between provinces and departments, and by the grossly inequitable distribution of resources (Schneider *et al.* 2007). This was particularly apparent in the concentration of public expenditure for health on a small number of tertiary and academic hospitals, while comparatively little was spent on primary health care (McIntyre *et al.* 1995). In 1995, the estimated shortfall of primary health care clinics ranged from 600 – 1000 clinics (*ibid*).

The Western Cape had several advantages that enabled it to roll-out ART more quickly and effectively than other provinces. Historically, the Western Cape provincial health system is better resourced and more effectively managed, providing a higher standard of public healthcare than in other provinces (Schneider *et al.* 2007). The province has relatively good pre-existing health structure including tertiary hospitals, mobile clinics and district and community clinics (Abdullah 2005a). Moreover, the province is predominantly urban, with the majority of its population living in and around Cape Town. The Western Cape has the lowest HIV prevalence in South Africa, which means that the demand for treatment is smaller than in other provinces. Cape Town also has greater success in retaining health professionals than poor, rural areas. However, in contrast to most other South African provinces whose HIV epidemics have already peaked, the number of new AIDS sick patients in the Western Cape continues to grow each year. This is due largely to migration, which continues to thwart the province's advances in closing the treatment gap (Western Cape Department of Health 2008).

The programme's evolution

The Western Cape Health Department chose to limit the number of clinics providing ART to approximately 40 (pers. comm. Cloete 2005). The strategic reasons for this were that a smaller number of clinics would ensure a more manageable drugs distribution system, and would guard against human resources shortages (*ibid*). By following this strategy, the provincial Health Department could also guarantee that it reached its Global Fund targets and

initiated as many people as possible onto ART within a relatively short time (*ibid*).

Limiting the number of province-run ART sites was a controversial strategy, and was a short-term solution to strengthen the province's capacity before rolling out ART in all public health clinics (Abdullah 2005a). Today, the ART programme still had its own medical depot, and treatment is available in selected clinics only, rather than in every public health facility. Partners continue to play a fundamental role in supporting the province's provision of ART, and major donors such as the Global Fund and PEPFAR continue to fund NGOs and research institutes to strengthen the province's capacity to maintain and scale up its treatment programme (pers. comm. Boulle 2010).

In January 2006 Abdullah resigned from his position to take up an appointment at the International HIV/AIDS Alliance. Numerous informants alleged that his championing of public access to ART in South Africa, at a time in which this clashed with the policy directives of the National Health Department, ruined his prospects for further career advancement within the national public health sector. Informants alleged that he was pushed out of state health structures because he was not considered sufficiently politically pliable.

Although studies have demonstrated the successes of the partnership created to roll-out ART in the Western Cape, several challenges remain. As patient numbers at ART clinics increased, the public health infrastructure came under further strain. Infrastructural improvements, such as the building of new facilities to accommodate the expansion of the programme, have suffered lengthy delays (pers. comm. Cloete 2005). In order to circumvent these delays, partners have mobilised their own resources to bolster service provision. For instance, MSF used its own funds to build extra clinic buildings in Khayelitsha to accommodate expanding patient numbers (pers. comm. Slingers 2005). Further upgrades to clinics' infrastructure to support ART provision were obstructed by the National Department of Health until the replacement of Health Minister Tshabalala-Msimang with Barbara Hogan in 2008.

The city of Cape Town has generally been able to retain sufficient medical staff to run its ART programme (Abdullah 2005a). However, shortages of healthcare workers continue to impede the functioning of the province's rural clinics. The provincial government's partnerships with organisations such as Absolute Return for Kids have helped to alleviate human resource shortages, as these organisations have recruited doctors, nurses, pharmacists and peer educators to the province's ART programme. In order to fund these initiatives, partner organisations have established their own partnerships with major donors,

including PEPFAR and the Gates Foundation. It is notable, however, that these partnerships must function within the parameters set by donor agencies.

The shortage of trained health workers, particularly in rural and disadvantaged areas, is one of the greatest barriers to improving access to healthcare across South Africa (Schneider *et al.* 2007). Epidemics of communicable and non-communicable diseases have increased demands for health services at the same time in which human resources for health have shrunk (Bradshaw *et al.* 2004).

Other challenges to the programme relate to drug resistance, toxicity and a lack of nutrition. Key personnel in the provincial Health Department believed that they had underestimated the importance of nutrition, and should have included nutrition as a component in the Global Fund application (pers. comm. Frankish 2005). The Provincial Administration could then have provided food parcels to patients on HAART at the five Global Fund sites, which are situated in some of Cape Town's poorest and most malnourished areas.

Conclusion

One of the most striking features of ART scale up in South Africa has been the level of provincial variation in outcomes (Schneider *et al.* 2010). In 2008, ART coverage rates (using national criteria of need) ranged from 26% in the Free State, to 72% in the Western Cape (Adam & Johnson 2009). The Western Cape's establishment of a partnership to roll-out treatment across the province was central to its success in piloting and scaling up the public provision of ART. Through this partnership, the province was able to circumvent the national Department of Health, and to use strategic alliances and international funds to implement a provincial ART programme. The partnership expanded the knowledge, human resources, capacity and funding available to the province. It was therefore able to expand its roll-out more quickly and effectively than other provinces. Resources were invested in training healthcare workers and in developing an M&E system which could be managed locally once the province assumed control of the ART programme. Today, the Western Cape remains the only province in South Africa that is able to report quarterly on its ART programme.

Early research conducted on the various ART pilot programmes in the Western Cape demonstrated that they were both feasible and replicable. Recent research on the Khayelitsha treatment programme in specific has demonstrated that the programme is also durable, with substantial clinical

benefits accruing for patients who were able to access ART through the programme since its establishment (Boulle *et al.* 2010: 563)

From 2007, when the provincial administration assumed full control over the provincial ART programme, the rapid progress of the Khayelitsha roll-out slowed. Research conducted by TAC as a part of its 2009 national Resources for Health Campaign demonstrated that a number of serious problems confronted Khayelitsha's ART clinics. These included staff shortages, drug stockouts, and relatively high numbers of patients initiating treatment with CD4 counts below 50. Long waiting lists for ART continued to delay treatment access at certain clinics. (TAC 2009). Despite the continual increases in the province's ART cohort, the Western Cape's ART programme has continued to demonstrate excellent clinical outcomes, with high levels of retention in care and healthier populations initiating ART (Western Cape Department of Health 2008). Increases in patient enrolment continue, despite growing strain on the human resources and the physical capacity of clinics (Western Cape Department of Health 2008).

The province's partnership with NGOs, academic research institutes and service providers continues to evolve. MSF and the School of Public Medicine at UCT still collaborate with the provincial Health Department to monitor the programme's development, and to pioneer ways of advancing the ART scale up. This includes new initiatives for the decentralisation of TB/HIV care, strengthening the referral system for patients failing second line treatment, TB/HIV integration, and piloting new and more efficient ways of retaining patients in care.

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