CENTRE FOR SOCIAL SCIENCE RESEARCH

Aids and Society Research Unit

ANTIRETROVIRAL TREATMENT IN THE WESTERN CAPE: A SUCCESS STORY FACILITATED BY THE GLOBAL FUND

Trude Holm Naimak

CSSR Working Paper No. 161 August 2006 Trude Holm Naimak is currently working as a consultant on AIDS and Global Health Initiatives in the Norwegian Ministry of Foreign Affairs

Antiretroviral Treatment in the Western Cape: A Success Story facilitated by the Global Fund

Abstract

Access to performance-based funding from the Global Fund to fight AIDS, Tuberculosis and Malaria, has enabled the Western Cape Province to race ahead with its antiretroviral (ARV) rollout. As of 2005, The Global Fund's contribution helped enable the province to provide antiretroviral treatment to 65% of those people who desperately need it (a figure in stark contrast to the then South African national average of 10%). This paper illustrates how the Global Fund grant, in its first year, clearly met and in some cases, exceeded its targets particularly in relation to ARV treatment. Based on the research carried out as part of the preparation for this paper, it becomes clear that the Western Cape's progressive and committed management team was a key contributing factor in successfully providing increased access to medical treatment. Other factors that have contributed to the success of the grant project include: the fact that in 1999, the province first initiated provision of ARV drugs to help prevent HIV-positive women transmitting the infection to their infants; and the experiences gained from both the introduction of treatment drugs and from the three-year ARV rollout projects in Khayelitsha and Gugulethu. This paper discusses the factors that have contributed to the success of the Western Cape ARV treatment programme and how, through funding from the Global Fund grant and other national funds, a foundation has been created for a successful programme.

Introduction

More than 40 million people worldwide are HIV-positive and since AIDS was first discovered, more than 25 million people have died as a result of the disease. Antiretroviral treatment is widely available in developed countries, while access to antiretrovirals (ARVs) in poorer countries has been historically inadequate. The World Health Organisation estimated in 2005 that out of the 6

million people needing life saving medication, only 1 million people are receiving the drugs (WHO, 2005).

This access to life prolonging ARV treatment has caused much controversy in South Africa. With more than 5.2 million South Africans affected with HIV/AIDS, South Africa is the country with the highest number of people infected in the world, and AIDS is the country's number one killer (Dorrington et al, 2001). The arrival of highly active antiretroviral treatment (HAART) has given hope to millions of people living with HIV/AIDS, however access and commitment from the South African government to provide the life saving drugs has been limited.

The Provincial Department of Health in the Western Cape was the first to start providing HAART in South Africa. As funds for HAART in South Africa were limited, the department applied for external funding from the Global Fund to fight AIDS, Tuberculosis and Malaria in 2003. The proposal was successful, allowing the Western Cape to scale up its HAART programme. This has resulted in the Western Cape rollout being hailed as the ARV success story of the country, with more than 11 000 people living with HIV/AIDS receiving ARV treatment in July 2005, a quarter of whom are funded by the Global Fund. It was further estimated that, at the end of 2005, 65% of those in need of ARV treatment in Western Cape would have access to the lifesaving drugs, a figure considerably higher than the South African national average of 10% (Herman, 2006).

This paper explores and demonstrates the success of the HAART rollout in the Western Cape supported and enabled by the Global Fund.

Background: HIV/AIDS in Western Cape

The Western Cape is one of the wealthiest provinces of South Africa's 9 provinces (Cummins, 2002: 49). The province has a higher *per capita* income (Statistics South Africa, 2003), the lowest HIV prevalence (see Table 1), and it is the province with the best success rates in the South Africa's fight against HIV/AIDS (Thom, 2005). Most notably, it was the first province to introduce a HAART programme – which was done in collaboration with Médecins Sans Frontières (MSF).

An additional contributing factor to this success is that the Western Cape health structure is one of, if not the best, health structures in South Africa² and has

¹ Keith Cloete, 30 Aug 2005, pers. comm.

remarkably high level of service³, according to MSF's Dr Eric Goemaere: "The city ... the level of service is amazing – like the primary health care in Khayelitsha compared to other provinces." This has resulted in the Western Cape being able to provide HAART much quicker than any other province.⁵

Table 1. HIV Prevalence by Province among Antenatal Clinic Attendees, 2002 – 2004

Province	2002	2003	2004
KwaZulu-Natal	36,5	37,5	40,7
Gauteng	31,6	29,6	33,1
Mpumalanga	28,6	32,6	30,8
Free State	28,8	30,1	29,5
Eastern Cape	23,6	27,1	28,0
North West	26,2	29,9	26,7
Limpopo	15,6	17,5	19,3
Northern Cape	15,1	16,7	17,6
Western Cape	12,4	13,1	15,4
South Africa	26,5	27,9	29,5

Source: Adapted from Department of Health (2005).

Although the Western Cape has the lowest average HIV prevalence, this figure masks major differences between areas within the province. As can be seen in Table 2, the epidemic is concentrated in poor, predominantly African areas like Khayelitsha⁶ (PAWC, 2005a).

Prevention of mother-to-child transmission of HIV

The Western Cape government was the first to introduce ARVs for the prevention of mother-to-child-transmission (PMTCT) of HIV. As Dr Eric Goemeare points out, the project was introduced secretly in 1999.

'They had started PMTCT. They wanted to start a programme very low key because they didn't want the national government to know

³ There are 72.4 doctors per 100 000 population and 8 000 hospital beds (Abdullah, 2005: 246-247). These rates are higher than in any other province in South Africa (*ibid*). Around 72% of the Western Cape population depends on the public health sector for their health care, while the other 28% have private medical insurance (Cummins, 2002: 49).

⁴ Eric Goemaere, 5 August 2005, pers. comm.

⁵ John Frankish, 22 July 2005, pers. comm, Eric Goemaere; 5 August 2005, pers. comm.

⁶ Khayelitsha is a poor township 30km outside of central Cape Town. It has more than 500 000 residents with more than half of the adult population unemployed, and most living in informal housing (shacks).

about it. They had taken the initiative; the province has a lot of autonomy.' (Goemaere, 2005, pers. comm., 5 Aug)

From January 1999, PMTCT was made available to HIV-positive pregnant women in Khayelitsha. The Health Department of the Provincial Administration Western Cape (PAWC) started the PMTCT programme in two midwife obstetric units in Khayelitsha (Abdullah, 2005: 249).

Table 2: HIV Prevalence by Health District, Western Cape 2000 – 2004

District		HIV Prevalence %			
	2000	2001	2002	2003	2004
Blaauwberg		0,6	8,2	4,4	1,2
Cape Town Central		3,7	11,9	11,6	13,7
Greater Athlone		6,8	8,9	10,1	16,4
Helderberg		19,0	19,1	19,1	18,8
Khayelitsha		22,0	24,9	27,2	33
Mitchells Plain	5,4	0,7	4,0	6,3	12,9
Gugulethu/Nyanga		16,1	27,8	28,1	29,1
Oostenberg		5,7	14,5	16,1	14,8
South Peninsula		5,9	6,0	9,3	10,8
Tygerberg Eastern	5,1	6,1	10,4	7,9	12,7
Tygerberg Western		7,9	12,7	8,1	15,1
Bredasdorp/Swellendam		1,4	3,2	1,1	10
Caledon/Hermanus		13	10,8	14,4	12,5
Ceres/Tulbagh		6,2	9,4	7,5	10,5
Worcester/Robertson	3,2	5,7	4,5	3,9	8,4
Mamesbury		2,7	6,7	10,7	6,2
Paarl	4,5	8,3	11,4	10,1	8,9
Stellenbosch		7,1	8,5	8,5	17,8
Vredenburg		8,9	9,0	10,0	13
Vredendal		1,3	10,2	3,9	5,8
Knysna/Plettenberg Bay		13,3	15,9	15,6	17,4
Klein Karoo		0,8	7,8	5,4	5,5
Mossel Bay/Langeberg		7,0	6,8	13,3	12,5
George	5,6	10,0	10,0	11,6	13,3
Central Karoo		5,5	7,4	6,5	8,9

Source: Adapted from PAWC, 2005a.

In addition to providing AZT to HIV-positive pregnant women, PAWC set up a voluntary counselling and testing(VCT) service at two maternity units which

resulted in the annual number of HIV tests being conducted in Khayelitsha alone to rise from 450 in 1999 to 22 000 in 2005.⁷

In 1999 MSF began supporting the Khayelitsha PMTCT programme. According to Dr Goemare⁸, MSF aimed to start a project in South Africa for three reasons:

Firstly, MSF was particularly interested in introducing issues around access to ARV treatment at the international AIDS conference, held in Durban, South Africa in 2000.

- Secondly, South Africa was, according to UNAIDS, the country with the highest number of people living with HIV/AIDS.
- Thirdly, MSF perceived South Africa as being the country that was highly devoted in the fight against drug patents.

Initially MSF had considered starting a programme in Alexandra Township (Johannesburg). However, neither officials in Alexandra nor the national government were interested in a programme involving the use of ARVs. Dr Eric Goemaere explains how, by chance, he came to discover the PMTCT programme in Khayelitsha:

'In that time nobody suspected that there was a problem with antiretrovirals in this country. On the contrary there was a famous court case against pharmaceutical company, - to have access to generics. As a matter of fact, we discovered afterwards that antiretrovirals were never part of the fight. It was for all the types of contracts, the essential contracts, - it was the first time in two years that the anti-retroviral were not part of the national protocol. I bought a ticket to go back to Europe, where I was prepared to say, 'well, sorry, we made a mistake'. But by chance I knew Zackie (Achmat), the head of TAC, by email, I had never met him, but bought a ticket to say hello and have a chat with him. And Zackie is the one who told me "you know I think they started something in Khayelitsha but I'm not totally sure, it looks like it's a rumour..." so we came here, the next day to discover that they had started something in maternity... They had started PMTCT. They wanted to start a programme very low key because they didn't want the national to know about it. They had taken the initiative; you know the province has a lot of autonomy. And I came that day, discovered this programme and I never left. That is what I've been doing. And that's the reason why Khayelitsha, it's

-

⁷ Eric Goemaere, 5 August 2005, pers. comm.

⁸ Eric Goemaere, 5 August 2005, pers. comm.

the reason we came here. Since they developed the programme...' (Goemaere, 2005, pers. comm., 5 Aug)

This partnership with MSF gave PAWC the opportunity to carry out pilot research before applying PMTCT throughout the province. This pilot project was able to demonstrate that PMTCP was effective even in poor communities (MSF *et al*, 2003). The programme expanded to more than 300 antenatal and child health clinics in 2001(Abdullah, 2005: 249), and it has since then reduced mother to child HIV transmission rates down to below 2 per cent for the Western Cape.⁹

Pilot HAART projects

In April 2000 the Provincial Administration of the Western Cape and MSF set up three clinics within Khayelitsha's primary health care centres to provide PMTCT (Kasper *et al.*, 2003). By May 2001, the HIV/AIDS clinics also began to offer HAART to people with an advanced stage of HIV infection.¹⁰

The HAART project was initiated to demonstrate its feasibility in a primary health care setting and in a resource-limited environment. As of July 2005, the three clinics: Site B Khayelitsha, Site C Nolungile and Michael Mapongwana, provided treatment to more than 2,400 patients and accounted for almost a quarter of HAART patients in the Western Cape.¹¹ In addition to providing HAART they also provide counselling, support, prophylaxis and treatment of opportunistic infections (PAWC *et al*, 2005). Initially the programme was almost exclusively run by MSF, however in the last couple of years PAWC has started gradually to take over¹² and it is expected that the Western Cape will take over the clinics in 2007 (Rosenberg, 2005).

Increased staff capacity at the three MSF clinics resulted in over 40,000 consultations in 2004 (PAWC *et al*, 2005). The MSF programme was also been able to increase the median CD4 count of the average patient starting ARV treatment of 42 in 2002 (MSF *et al*, 2003) to 85 in 2004 (PAWC *et al*, 2005), thus indicating that patients were healthier when starting ARV treatment.

⁹ Ivan Toms, 23 August 2005, pers. comm.

¹⁰ Eric Goemaere, 5 August 2005, pers. comm.

¹¹ Keith Cloete, 30 Aug 2005, pers. comm.

¹² Nevilene Slingers, 1 September 2005, pers. comm.

The next step

Shortly after the introduction of the three MSF clinics, the Desmond Tutu Foundation set up a clinic in Gugulethu.¹³ The foundation, like MSF, carried out vital research for PAWC¹⁴, proving that people in limited resources communities could access HAART, and that they could have as high adherence to the ARV drugs as people in the developed countries (Orell et al., 2003).

PAWC entered into partnerships with at least six other NGO or research-based initiatives in public health facilities within the Western Cape¹⁵. By the end of 2003 the Western Cape Province had established ARV sites in Langa, at the G F Jooste, Groote Schuur, Tygerberg and Red Cross Hospitals in addition to the Gugulethu clinic and the three Khayelitsha clinics (Abdullah, 2005: 250).

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

The Western Cape Department of Health has been highly committed to HIV/AIDS prevention, treatment and care at times when the national government was sceptical and unsupportive. In order to expand access to HAART, PAWC was forced to look for external funding. The province submitted its first proposal to the Global Fund to fight AIDS, Tuberculosis and Malaria in 'Round Two' but the grant was unsuccessful. 16 At the time of this application there was massive conflict between the national government, the health minister, Dr Manto Tshabalala-Msimang, and the Global Fund Secretariat surrounding a Global Fund grant in KwaZulu-Natal. Dr Andrew Boulle, who was involved in writing the 'Round Two' application, explains why he thought the proposal failed to get funding:

'I think there were actually seventeen South African proposals in that round, and because the South African CCM [Country Co-ordinating Mechanism] didn't follow procedure, they were all rejected on that. ... The process was always political. The reason we all knew why 'Round two' hadn't been considered was because of the relationship between the South African CCM and the Fund... and I think that the

Robin Wood, 9 September 2005, pers. comm.

Keith Cloete, 30 Aug 2005, pers. comm.

¹⁵ Keith Cloete, 30 Aug 2005, pers. comm.

¹⁶ Andrew Boulle, 10 August 2005, pers. comm.

Fund was very encouraging to resubmit.' (Boulle, 2005, pers. comm., 10 Aug).

Dr Boulle suggests that the Western Cape knew that the proposal was rejected on political grounds, and on the encouragement from Dr Richard Feachem, the executive director of the Global Fund, they improved and resubmitted the proposal. Coincidently Dr Feachem was in South Africa in April 2003 to meet with the South African Government to solve the issue around KwaZulu Natal with the aim to agree on and sign the grant agreement, ¹⁷ so that the programme could start running. Despite Dr Feachem's hope to resolve the KwaZulu Natal story, the issue remained unsolved during his stay (Cullinan, 2003). By this time the MSF/PAWC project in Khayelitsha already was up and running, and according to Dr Eric Goemaere, it sparked Dr Feachem's interest:

'Khayelitsha becoming a well-known programme, mainly after the publication by WHO, they did a sort of best practice series, and Khayelitsha was one of the first to be published. So Feachem was interested to come for a visit, and asked for a visit. So he was invited here and I think he was impressed by the programme and it's very interesting, you know Fareed (Abdullah) used MSF against the national, and I'm sure Feachem used the Western Cape against national. It was very well known that he was going from one province to another. No the matter of fact, when he came to visit here he came to South Africa to sort out the KwaZulu Natal story ... he told me that he thought this is a misunderstanding, let's take a ticket – flight ticket and spend three days talking face to face with people, it must be, it's not possible, it's a misunderstanding and we saw Richard Feachem here absolutely, absolutely... he was furious. He had lost four days of his life for nothing - you know. In fact, he didn't realise that South Africa, that it was such a mission and that he hasn't achieved anything since then because it was being blocked so he was so pleased to find here Fareed and the whole team that was ready and keen to start something and he needed something that was already working you know.' (Goemaere, 2005, pers. comm., 5 Aug)

The effort of work that went into this second application was impressive; it was a much more inclusive and holistic proposal, involving PAWC and a number of NGOs.

'And honestly today I have never seen a public administration working like the way they work. I was called here 10 o'clock at night because they have to finalise the papers and those guys were working

¹⁷ Eric Goemaere, 5 August 2005, pers. comm.

'til 12 o' clock at night. I mean the public, civil servants? Not in that many places, and that is fantastic, you know?' (Goemaere, 2005, pers. comm., 5 Aug)

In May 2003, the Western Cape Provincial Department of Health applied for funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria (PAWC, 2003a). The application was successful and the grant was approved on the Global Fund's sixth Board Meeting in Chiang Mai, Thailand, 15-17 October 2003 (Global Fund, 2005). This initiated the grant negotiations with the secretariat with the final grant agreement being signed on 25 August, 2004 (Global Fund, 2006). The first disbursement of funds arrived on October 20, 2004. The Western Cape Provincial Department of Health received the largest grant given thus far to a provincial department (PAWC, 2003b). The grant by the Global Fund was a five-year programme to strengthen and expand the province's comprehensive HIV/AIDS programme, with a total value of the fiveyear grant programme of US\$66, 5 million.

Table 3: The Global Fund Grant

The four objectives of	Year 1	Year 2	Total
the Global Fund grant:	(USD)	(USD)	(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 the Global Fund Work Plan, Western Cape Department of Health (2004).

ARV drugs

The Western Cape was fortunate to have a comparatively well functioning health sector, however the medical depot in Western Cape came under scrutiny by KPMG, (an accounting firm hired by the Global Fund) before the grant agreement with the Global Fund was signed.¹⁸ As a result of the changes demanded by KPMG, a new separate medical depot for antiretrovirals was setup. 19 This provided a quick short-term solution to the problem, while the long-term solution would be to improve the existing depot. The PAWC set up

¹⁸ Fareed Abdullah, 19 July 2005, pers. comm. ¹⁹ Fareed Abdullah, 19 July 2005, pers. comm.

an ARV depot in six weeks, which was enough time to satisfy KPMG and get the grant agreement signed.²⁰

To this day, the ARV depot functions very well, and has never had any major stock shortages of ARVs.²¹ This could be attributed to the fact that the Western Cape is fortunate in having local suppliers, which enables them to purchase ARV drugs monthly, however the depot keeps three to four months of stock, which has a value of R7,5 to R10 million.²² Thus easy access to ARVs for clinics has insured that the sites never run out of ARVs, while the same cannot be said about the general medical depot. Dr Eric Goemaere, who runs the MSF programme in South Africa, very much appreciates the ARV depot.

'We have a straight management line with direct contact to one person to whom to decide... and if you have a problem, then Liezl (Channing) is available – there's no drugs or the drug's gone. Because other times you have to go via, via, via, and you don't get an answer there for four weeks, that's for sure. It makes a huge difference.' (Goemaere, 2005, pers. comm., 5 Aug)

There is no question that the specialised ARV depot has contributed to the success rate of the Global Fund grant. One can always criticise the solution for being short-term. However, the separate ARV depot has insured that ARVs are available at all ARV clinics at any given time, making clinics able to provide the life prolonging medication.

ARV Treatment Sites

In the grant project's first two years, the Global Fund provided funds for ARV treatment sites within the metropolitan region of Cape Town. The five ARV sites that received Global Fund money were:

- Gugulethu community health clinic (CHC)
- Khayelitsha: Site B CHC
- Khayelitsha: Site C CHC
- Khayelitsha: Michael Mapongwana CHC
- Masiphumelele Clinic

All five clinics were co-run by an NGO and were all pilot research sites prior to the Global Fund money. This was a deliberate choice from PAWC to put the

²² Liezl Channing, 25 August 2005, pers. comm.

Fareed Abdullah, 19 July 2005, pers. comm.
 Liezl Channing, 25 August 2005, pers. comm.

money where there was an already established programme, as they thought that it would assist them to build a more successful project, by up scaling as opposed to starting from scratch.²³ Thus by choosing already well-functioning clinics with around 1000 people on ARV treatment, and through a planed upscale the Western Cape insured themselves against failure, and had perhaps the best foundation for a successful grant.

Table 4. Global Fund Grant Objective 1: ARV Treatment Year 1

Key Indicators		Intended results/targets in year 1			
		Quarter	Quarter	Quarter	Quarter
		1	2	3	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).

The success of the ARV component of the grant was measured by the cumulative number of patients on HAART at each of the treatment sites. As seen in Table 4, each clinic was given specific targets. The number of patients starting HAART and the number of patients discontinuing treatment are also presented in progress reports.²⁴

The Five Global Fund ARV sites combined

As a whole the Global Fund grant managed to meet or exceed its HAART targets. The number of new patients who started HAART with Global Fund money constantly performed well. Discontinuing rates, as people stop taking the medication, move or die, naturally affect the cumulative number of patients on HAART. The grant managed to hit its targets, despite some clinics performing just under target. For the first year of the Global Fund grant the target was to have 3 160 patients on ARVs at the 5 funded sites. They achieved 3 319 by the end of June 2005.

²⁴ John Frankish, 22 July 2005, pers. comm.

²³ Fareed Abdullah, 20 July 2005, pers. comm.

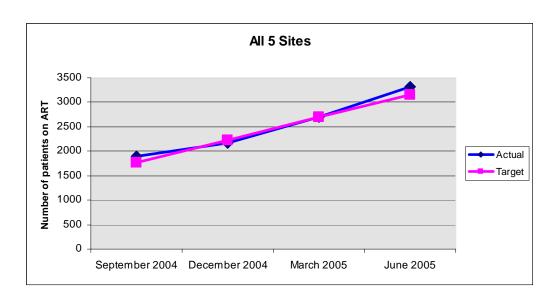


Figure 1 Number of patients on ART at All 5 Sites

Source: Provincial Administration of the Western Cape, Department of Health, 2005c.

The numbers below tells how successful the grant has been in putting new patients on treatment in the first year of the grant. Originally the target was to start 1860 patients on treatment within a year, but in fact 2216 were started, a number which clearly exceeds the target.

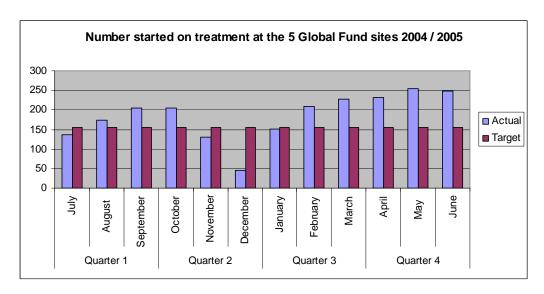


Figure 2 Number started on treatment at 5 global Fund Sites

Source: Provincial Administration of the Western Cape, Department of Health, 2005c.

In the first year, 334 patients discontinued HAART. Despite this, the grant still exceeded its targets, both when it came to new HAART patients as well as total number of people on treatment.

The general rollout in Western Cape

The Western Cape has been hailed as the ARV success story in South Africa as it has been able to provide HAART to HIV-positive persons faster than any other province. The well-run pilot projects gave the province something to build on. Following the South African National Cabinet's decision of 19 November 2003 to implement and fund a national HAART programme, and along with the promised grant from the Global Fund, the HAART rollout began gradually in 2004.²⁵ The Western Cape was, as of December 2005, reaching an estimated 65% of those in need of ARV treatment in the province (F. Abdullah cited in Herman, 2006). This figure coincides with the ASSA AIDS model, which PAWC has used when planning for the needs of ARV treatment.²⁶ However, nationally, it was estimated that only 10% of those in need of treatment had access to ARV treatment in 2005 (F. Abdullah cited in Herman, 2006). Thus illustrating, quite clearly the success of the Western Cape. Other urban areas like Johannesburg and Pretoria have had a slower start, but have since caught up in total numbers.²⁷

The Western Cape's five Global Fund sites were a part of the 44 planned ARV sites by March 2006. In August 2005 there were 39 ARV sites operational, and as of end of July 2005 there were 10 451 people on treatment.²⁸ The Western Cape has performed well, by exceeding their own target of 10 000 people on treatment by December 2005 and reaching the target in July 2005. In August 2005 the programme enrolled an average of 800 new HAART patients monthly.²⁹

Dr Gary Maartens has compared the HAART rollout in Western Cape to a 'military operation'.³⁰ PAWC has, accordingly to Dr Keith Cloete, the HIV/AIDS director in PAWC, followed a very detailed and well-planned structure:

'It eventually became a detailed month per month plan, which you can equate to a kind of military operation because it got to that level of detail and we roughly stuck to all those targets...' (Cloete, 2005, pers. comm., 30 Aug)

²⁵ Keith Cloete, 30 Aug 2005, pers. comm.

Fareed Abdullah, 23 Sept 2005, pers. comm.
 Keith Cloete, 30 Aug 2005, pers. comm.

²⁸ Keith Cloete, 30 Aug 2005, pers. comm.

Keith Cloete, 30 Aug 2003, pers. comm. ²⁹ Keith Cloete, 30 Aug 2005, pers. comm.

³⁰ Gray Maartens, 4 August 2005, pers. comm.

PAWC had a good working knowledge of operational issues having experience in working with ARVs, both in the PMTCT programme and the pilot HAART sites. On the basis of the experiences from the pilot projects, Western Cape developed a strategy for the antiretroviral rollout.³¹The decision on where to place the HAART sites was based on a combination of geographical access and high HIV prevalence areas.32

Critical Success factors

The Western Cape Global Fund grant has been highly successful in meeting the targets set. The overall rollout of HAART in the Western Cape has also been described as a success.

The Western Cape had several advantages, relative to other provinces, that enabled them to progress faster than other provinces with regard to HAART. Firstly the province had a pre-existing good health structure and system with tertiary hospitals, mobile clinics and district and community clinics. Secondly, the province is predominantly urban, with the majority of the population living in and around Cape Town. Thus it was easier to focus on a fewer number of clinics. Thirdly, Western Cape had the lowest HIV prevalence rate in South Africa, thus the infection rates were lower, and thus more manageable. Fourthly, Western Cape was fortunate in being able to attract committed health professionals as Cape Town is known to be a beautiful city where people would like to live.

Other factors that contributed to this success are discussed below.

Timing

Timing played a crucial role in the success, as the Western Cape was fortunate to obtain a partnership with MSF in Khayelitsha at a time when national policy was opposed to the use of ARVs, both in pregnant women, children and adults. If MSF had not arrived in Cape Town, it would have taken Western Cape a much longer time to develop the expertise that MSF acquired in Khayelitsha, and hence the Global Fund programme and the general rollout would not have these advantages, and thus the programme might not have been successful.

Timing also played a vital role in the arrival of the Global Fund grant. The grant coincided with the national rollout. This allowed the Western Cape to use the

32 Keith Cloete, 30 Aug 2005, pers. comm.

³¹ Fareed Abdullah, 20 July 2005, pers. comm, Keith Cloete, 30 Aug 2005, pers. comm.

Global Fund money to expand the rollout to reach more areas than they would have reached without the grant money. The provincial administration could make the Global Fund five sites part of the bigger rollout plan which involved a planned 44 sites.

Had the Global Fund grant been approved in round two, and not in round three, then the grant would most likely have arrived at a time when the South African national government was opposed to free ARVs through the public health system. This would probably have made it more difficult to achieve success with the programme and would most likely of raised more controversy around the topic.

Experience through partnerships

A key to the success of both the Global Fund supported HAART programme and the general rollout of HAART in the Western Cape can be attributed to the successful partnerships between PAWC and independent organisations. The two partnerships that have been extremely important for the success of the Global Fund grant are the Médicins Sans Frontières (Khayelitsha) and the Desmond Tutu HIV Centre (Gugulethu).

These two partnerships were particularly vital in the early days of the rollout when national policies were against public HAART programmes. These organisations produced vital research on how to provide HAART in resource-poor environments, proving that adherence to the drugs was as good as in developing countries.³³

The partnerships, especially the MSF partnership on PMTCP of HIV, which started in 1999, gave the Western Cape Department of Health an opportunity to gain vital experience in managing ARVs in a resource poor communities while the national debate was raging. This has been categorised as a smart move by the provincial administration.

'Fareed (Abdullah) was clever enough putting this totally as private research, but in fact in governmental site. So in fact, in a way he protected himself from the rage of national. So he could always claim "oh, no it is not us" But at the same time he could benefit from the experience.' (Goemaere, 2005, pers. comm., 5 Aug)

Although antiretrovirals were available in the private health sector at the time, PAWC had limited experience with implementing and managing ARV

_

³³ See Coetzee *et al.* (2005), Coetzee *et al.* (2004), Kasper *et al.* (2003), Orrell *et al.* (2003).

treatment, and it would be a fair comment to say that they would not have been able to gain the same level of experience without the MSF partnership in Khayelitsha.

'And MSF has helped. Great help of course... I mean the Khayelitsha pilot and showing that it worked and dealing with all the problems... and MSF involvement in Khayelitsha... putting out papers and things that showed that they were able to keep the compliance and all that so it wasn't as dangerous for people to worry about, has also strengthened our hand at an early stage.' (Toms, 2005, pers. comm., 23 Aug)

'I think they would have been able to have significant pilot sites operational, but not to the scale. Not as early as 2000/2001, not at the scale of Khayelitsha, and not in Khayelitsha, because I mean the MSF involvement was the key to starting a lot earlier before any other organisations got going a bit later when more funding became available etc. I think Khayelitsha as a surface context was a very challenging surface context... and not many other NGOs would have chosen to start there... and I think having a partner with a strong political and advocacy vision was important at the time, given the political context.' (Boulle, 2005, pers. comm., 10 Aug)

When the pilot sites initiated ARV treatment both in Khayelitsha and in Gugulethu, PAWC was able to gain uniquely different experiences, from two different communities with high HIV prevalences. Khayelitsha is a more mobile community, with great influx of patients from Eastern Cape, while Gugulethu is a much more stable community.³⁴ The two projects also operated with different counselling models thus potentially providing insight into which models work the best in terms of encouraging adherence. As of July 2005 PAWC had not decided which model provided the best result.³⁵

From 2000/2001 the Western Cape developed other partnerships with regard to the provision of HAART. The partnership with the organisation 'Kidzpositive' at the Groote Schuur Hospital in Cape Town provided vital insight into paediatric HAART (Abdullah, 2005). Since 2003, PAWC has had a strong partnership with 'Absolute Return for Kids' (ARK), a non-governmental organisation. ARK helped with the scale up of new HAART sites by bringing in a team of doctors, nurses and/or pharmacists rapidly to improve capacity

³⁴ Nevilene Slingers, 1 September 2005, pers. comm.

³⁵ John Frankish, 22 July 2005, pers. comm.

at the site.³⁶ This happened at many of the HAART sites, however not at the five sites funded by the Global Fund.

The pilot projects in 2000 represented the starting point of HAART provision in Western Cape. The later general rollout, in 2004, started with the pilot sites then gradually expanded to other sites. The four Global Fund sites, which were previous pilot sites, were extended and scaled up access to HAART. The fifth site, the Masiphumelele site in Fish Hoek, Cape Town, was set up in late 2004 with the knowledge gained from the pilot project in Gugulethu (Wood, 2005, pers. comm., 9 Sept).

For the Western Cape, partnerships have been an essential component in the fight against AIDS. By creating partnerships the province was able to expand their projects and gain more knowledge than they would have done without the partnerships. The early experience with HAART provision in poor communities in Khayelitsha and Gugulethu gave the Western Cape an advantage over other provinces. This was, according to Dr Fareed Abdullah³⁷, the main reasons for the quick scale up and early success.³⁸

Involvement of civil society

The provincial administration in the Western Cape has a strong partnership with civil society³⁹, particularly the Treatment Action Campaign (TAC). TAC promotes patient advocacy and community involvement with most of the urban HAART sites. This has been clearly demonstrated in Khayelitsha where HIV services were developed alongside strong civil society pressure and community-based education programmes.

'I mean the main success factor is the involvement of TAC, we came with a technique – a technical proposal, its possible to treat HIV ... So TAC has been very useful here, in by the way; TAC and MSF developed together here in Khayelitsha. When we arrived they were at an office in town, they were a few, a few people that formed the community-based community rooted TAC – they come from all sorts of places, some they decide to disclose and that's something useful for the treatment of the people so that is an enormous factor.' (Goemaere, 2005, pers. comm., 5 Aug)

³⁹ Keith Cloete, 30 Aug 2005, pers. comm.

³⁶ Keith Cloete, 30 Aug 2005, pers. comm.

³⁷ Dr Abdullah was until January 13 2006 the Western Cape Deputy Director General: District Health.

³⁸ Fareed Abdullah, 19 July 2005, pers. comm.

The TAC acted on a provincial and national level, mobilising the community, making HIV/AIDS and access to HAART a political issue.⁴⁰ TAC has educated many people in the community about HIV/AIDS, prevention and ARV therapy ("treatment literacy"). In Khayelitsha, TAC's Project Ulwazi ("knowledge") used HIV-positive people to educate the community, with the goal of promoting disclosure and reducing stigma (MSF *et al*, 2003).

'The Treatment Action Campaign brings with it a completely different dimension in terms of their partnership. It was more a partnership of encouraging people on the ground to engage in the treatment programme and doing a lot of mobilisation in communities where the treatment is needed, and doing a lot of treatment literacy and a lot of things that kind of combat stigma with an exceptional groundwork in terms of making the Western Cape a fertile ground for a good roll out programme. So that it's dealt with a lot of programmes that we would never be able to cope with or begin to deal with if we had to do it in absence of that partnership.' (Cloete, 2005, pers. comm., 30 Aug)

Although difficult to prove, TAC's involvement in Khayelitsha, in combination with MSF and the provincial administration in the Western Cape might have created more openness and knowledge around HIV and AIDS, and possibly reduced stigma. More people in Khayelitsha were willing to take HIV tests to determine their status than in any other community; 60% of women aged 20-24 years took an HIV test (Eric Goemaere quoted in Rosenberg, 2005). In South Africa, generally, it is believed that the vast majority of people do not know their HIV status. No other community in South Africa can show such high results with regard to willingness to take HIV tests as Khayelitsha (*ibid*). This indicates that there might be more openness around HIV/AIDS in Khayelitsha relative to other areas.

'Ok. TAC... you know that's a good one. I think in Khayelitsha they've been particularly good, hey... and I mean just overall they're good. But in Khayelitsha they've been particularly good. And how I think they've helped amazed me. You see I don't think we've had to use... where in a sense nationally TAC has had to be in a sense on the attack to try and force government to do things. Here in the Western Cape, TAC and Fareed (Abdullah) are particularly very close you know... and they've been able to affirm what we've been doing rather

[.]

⁴⁰ TAC has been on the forefront demanding access to treatment. They have, among other things, taken the health minister to court for not allowing HIV-positive women to be treated with ARVs so that the babies would have a reduced risk of transmission. For more information on TAC see www.tac.org.

than attack it, and I think that's a better relationship and so they've been able to put their energies into helping people understand the treatment, understand what the drugs are, understand sort of the potential fall-outs and things like that why they shouldn't... So I mean a young client in Khayelitsha on antiretrovirals probably knows more about the drugs and the side effects and all that than I do, just about... I mean they're amazingly informed.' (Toms, 2005, pers. comm., 23 Aug)

According to Coetzee and Nattrass (2004:4), patients in Khayelitsha were also more open and willing to disclose their HIV status, having found that 72.6% had disclosed to a support group, while 82% had disclosed to one or more family member. Goemare supports this and believes that the stigma attached to HIV/AIDS has declined drastically since 1999.⁴¹

In addition to TAC, many other organisations have been active in the fight against HIV/AIDS. Academic institutions and researchers have also been involved in discussions on ARV treatment.⁴² The combination of all these initiatives has helped to create a united environment in Western Cape promoting openness around HIV/AIDS.

Synergy

The united environment around HIV/AIDS in Western Cape created by the involvement of civil society created openness and unity. The pilot projects and the partnerships made people think that there was a will to do something in the Western Cape. The provincial HIV/AIDS administration in the Western Cape was viewed as credible; they were doing all they could, in light of the national policies, to expand access to HAART. All actors in the fight against AIDS were in agreement. There were no disparities and controversies like at the national level.

There was also a strong connection and between the three leading institutions/organisations via the three leading men; Fareed Abdullah (PAWC), Zackie Achmat (TAC) and Eric Goemaere (MSF), in the fight against AIDS. This naturally eased tension, and helped create synergy.

'Here in the Western Cape, TAC and Fareed (Abdullah) are particularly very close...' (Toms, 2005, pers. comm., 23 Aug)

⁴² Gray Maartens, 4 August 2005, pers. comm.

⁴¹ Eric Goemaere, 5 August 2005, pers. comm.

Dr Eric Goemare on his relations with Dr Fareed Abdullah:

'Excellent - from the beginning; very fruitful. I mean I've been doing this work for MSF for more than 30 years and it's definitely the best relation I have ever had. With national it is probably the worst I have had.' (Goemeare, 2005, pers. comm., 5 Aug)

'I think the word for me would be "synergy", particularly with Khayelitsha. TAC, province, city... um, youth centres, NGO's involved, MSF, you know... you've got this synergy going, they really and they work together, they think together, they understand each other, they're a team.' (Toms, 2005, pers. comm., 23 Aug)

Leadership/Management

The decision to involve civil society and establish partnerships was taken by the HIV/AIDS management team, led by Deputy Director Dr Fareed Abdullah. In this research the management style of the HIV/AIDS team in Western Cape has come out as an important factor in the success of the HAART programme. Almost all interviewed, in the research process, acknowledged the importance of Dr Fareed Abdullah's leadership and his team's well-functioning management style. Several visualised how well the Western Cape functioned in comparison to the neighbouring province of the Eastern Cape, where things run much less smoothly.

For any programme to be successful you need good management and well functioning systems in place. This is particularly important in the context of the Global Fund. The Global Fund requires progress reports and the Local Fund Agent assesses the grant performance, making monitoring and evaluation a crucial part of grant management. If a grant is not performing well, and not reaching its targets, or if it is not accountable, then the grant faces the risk of termination. This has recently been seen with the Global Fund grant to loveLife in South Africa. LoveLife applied for 'phase two' funding, however the application was declined. This resulted in loveLife loosing one third of its funding, which naturally has adverse implications on their project. The grant given to Western Cape will also face termination if not performing well, thus good management to meet targets could be vital.

In the Western Cape, Dr Fareed Abdullah was in charge of the HIV/AIDS team, which is also the unit that is responsible for the Global Fund grant (Global Fund, 2006). The implementation and management of the Global Fund grant had been carried out within existing programmes in the provincial

administration in Western Cape⁴³, and parallel systems and structures, apart from the special ARV depot, have not been developed.⁴⁴ Even though the existing management personnel, structures and systems have managed and implement the Global Fund grant, only a handful of additional personnel were appointed in the first year of the grant to coordinate the Global Fund aspects of the already existing programmes.⁴⁵

All involved in the administrating and managing the Global Fund grant met monthly to discuss the progress of the grant.⁴⁶ These meetings created peer pressure with regards to performance, making the responsibilities more focused on meeting targets.⁴⁷ Thus this management and infrastructural supporting frameworks can be attributable to the successful management and meeting of targets for the Grants.

'It's almost the perfect example. I've never seen such a good example of funding that instead of making people dependent, stimulate their ambition.' (Goemaere, 2005, pers. comm., 5 Aug)

'I think we've got a very good team spirit ... dealing with the Global Fund was actually quite a good team-building exercise.' (Cloete, 2005, pers. comm., 30 Aug)

Dr Fareed Abdullah has been responsible for the Western Cape's AIDS programme since 1995 (Herman, 2006) and in 1999 he had the courage and dedication to start the first PMTCT programme in South Africa. Abdullah also had the foresight to sign an agreement with MSF to do pilot research on HAART.⁴⁸

'It was a political risk...The management style was fantastic' (Maartens, 2005, pers. comm., 4 Aug)

'There were these huge tensions with the national minister and she was saying that AZT was poison...' (Toms, 2005, pers. comm., 23 Aug)

It takes a strong leadership to go against national policies, it takes a visionary to unite the province and it takes charisma and motivation to attract a good management team. During interviews, these were the types of qualities ascribed

44 Fareed Abdullah, 19 July 2005, pers. comm.

⁴³ John Frankish, 22 July 2005, pers. comm.

⁴⁵ John Frankish, 22 July 2005, pers. comm.

⁴⁶ Fareed Abdullah, 19 July 2005, pers. comm. ⁴⁷ Pren Naidoo, 1 August 2005, pers. comm.

⁴⁸ Eric Goemaere, 5 August 2005, pers. comm.

to Dr Fareed Abdullah. Many have attributed the success of AIDS treatment in the Western Cape to a large extent to Dr Abdullah's drive and commitment.

'I think a huge amount of that must go to Fareed's (Abdullah) drive and commitment... That I fully take my hat off for what he's done in terms of that and be able to put together that Global Funding document and make it really work... That's brilliant.' (Toms, 2005, pers. comm., 23 Aug)

'Fareed (Abdullah) is also a very strong leader and a good visionary. He always challenges you, but supports you to the goal... like he he'll say "We are going to do this..." and we'll all look at each other and think oh how are we going to do this? I don't know if it is his charisma or what it is, but somehow he inspires us to get there and he supports us through the process as well which has been great. I think he is also one of our KEY success factors.' (Channing, 2005, pers. comm., 25 Aug)

Dr Abdullah also had the vision to apply for funding from the Global Fund despite the controversies in KwaZulu-Natal. When MSF's Dr Eric Goemaere was asked "could it have been done without him?" he replied:

'I'm not sure. It's a good question, and relevant question. I'm not sure... his skills, his style; he is very good in creating a team. He managed to create a management team – Have you see a management team like that at national level? It is a big job and he has charisma, vision, he sees far, and that makes a big difference I think.' (Goemaere, 2005, pers. comm., 5 Aug)

'I think that Fareed is quite lucky and fussy in terms of the fact that he tends to chose hand picked people that he involves in his team... He is clearly a very committed person... He is very honest and respects whatever you say... He chooses people who are highly motivated, who can get the job done, and who have done well and shown that they can do well in difficult circumstances. Those are the people that he has pulled into the team.' (Slingers, 2005, pers. comm., 1 Sept)

'I think one of the things that Fareed did, in his wisdom did bring a pharmacist into programme, which never happened before. So very often I would sit in meetings and they will be planning things, planning changes and obviously a pharmacist could see things from different perspectives... A clinician would say 'we need this treatment' a pharmacist might say 'look we have this stock, it's worth this amount of money and we need to get rid of it before we can...' so

we just see things differently. So I think it was very good that Fareed brought a pharmacist into programmes in general and then specifically into the ARV. I form part of a core team so we have somebody looking after clinical, somebody looking after the site... I look after medicines and pharmacy related issues and I think that helped a lot as well.' (Channing, 2005, pers. comm., 25 Aug)

'It is a very strong team.' (Slingers, 2005, pers. comm., 1 Sept)

Dr Fareed Abdullah was especially given credit for hiring Dr John Frankish.⁴⁹

'We are very lucky to have John (Frankish)' (Slingers, 2005, pers. comm., 1 Sept)

'John Frankish is no "nobody" you know, these guys manage huge budgets, they know about management, and of course there's the whole capacity. I hear in another country is too complicated the Global Fund, and here its works perfectly. Again, on both sides there were good political reason to make sure it worked and rapidly. But it was sort of a dream story because of the relations with the Global Fund, we were helping each other in the best way to create out of it the best outcome we could have, and the Global Fund has stimulated their energy, their enthusiasm and their ambition.' (Goemaere, 2005, pers. comm., 5 Aug)

It was a calculated management decision to select the five chosen Global Fund HAART sites.⁵⁰ Starting up new ones would have demanded more work and would have been riskier.⁵¹ It was also calculated to keep the number of HAART sites in Western Cape to a low number around 40.⁵² Through limiting the number of clinics it was easier to manage the HAART supply, and to ensure that they were adequately staffed.⁵³ By following this strategy the Western Cape made sure that they achieved their Global Fund targets and reached as many people in the shortest time with ARVs.⁵⁴

'As I say it's almost the perfect example. I've never seen such a good example of funding that instead of making people dependent stimulate their ambition, I mean, they could have... they could have sit on the global fund money and stick to that but they say ok, we can

⁴⁹ Andrew Boulle, 10 August 2005, pers. comm.

⁵⁰ Fareed Abdullah, 20 July 2005, pers. comm. ⁵¹ Pren Naidoo, 1 August 2005, pers. comm.

⁵² Keith Cloete, 30 Aug 2005, pers. comm.

⁵³ Keith Cloete, 30 Aug 2005, pers. comm.

⁵⁴ Keith Cloete, 30 Aug 2005, pers. comm.

get that bit and save a bit of money and do it elsewhere. So I know that they could have asked national well, why it works so much. No, no, they really pushed the roll- out - the provincial roll out as far as they could, save in ½ from the global fund to invest else where.' (Goemaere, 2005, pers. comm., 5 Aug)

Limiting the number of province- run HAART sites was a bold strategy, which has received a lot of criticism for only being a solution that is short-term. HAART is managed by the province, it has its own medical depot, and it is provided in selected clinics only. The programme has not been integrated into the primary health care setting, as have the treatments for opportunistic diseases such as Tuberculosis. This could be problematic in the long run, but was described as a short-term necessity for the Western Cape. This strategy ensured that the PAWC reached as many HIV-positive people in need of HAART as fast as possible. And when people were dying of AIDS, it was important to save as many lives as possible as quickly as possible. However, the understanding is that after some years the HAART programme will be incorporated into the primary health care system, ensuring even broader access.

Potential challenges

Key success factors such as partnership, experience, timing, management and synergy have all contributed to the success of the Global Fund grant in Western Cape. Even though the Western Cape and the Global Fund grant are seen as successful by many of the people interviewed for this paper, several challenges still remain.

Firstly, the numbers of people who need HAART is increasing, and will keep increasing for the next years. This poses challenges for infrastructure and staffing. Clinics which operated on maximum capacity in 2005 will need to expand to be able to operate in 2006 and 2007. If this means that there will be needs such as an extra building and additional staff, these are challenges that have to be met by PAWC. Often building an extra facility will take a number of years with a slow moving bureaucracy as in the Western Cape. ⁵⁹ The Gugulethu ARV site needed a new building to be able to scale up the provision of ARVs in 2004. ⁶⁰ This building was completed in 2005, and the uptake of patients rose

⁵⁷ Fareed Abdullah, 23 Sept 2005, pers. comm.

⁵⁵ Eric Goemaere, 5 August 2005, pers. comm, Ivan Toms, 23 August 2005, pers. comm.

⁵⁶ Keith Cloete, 30 Aug 2005, pers. comm.

⁵⁸ Fareed Abdullah, 23 Sept 2005, pers. comm.

⁵⁹ Keith Cloete, 30 Aug 2005, pers. comm.

⁶⁰ Nevilene Slingers, 1 September 2005, pers. comm.

dramatically. This new building was, according to Slingers (2005),⁶¹ the reason for the Gugulethu site meeting its Global Fund targets. The MSF in Khayelitsha did not possess that kind of patience and set up an extra building themselves.⁶² This is well and good for the patients who need HAART in Khayelitsha, but it highlights a potential huge challenge for PAWC's HAART management team.

Secondly, medical staff, especially nurses, can be hard to find.⁶³ Cape Town has been fortunate to attract medical staff to its urban clinics.⁶⁴ However, challenges remain for the other more rural clinics. Hence PAWC has great need for the partnership with ARK, which helps recruit staff. Without the support from NGOs, once again, PAWC seems more fragile.

Other challenges relate to issues around drug resistance, toxicity and lack of nutrition. The first two are medical challenges, but the last one could be a management issue. Key personnel in PAWC have mentioned, in interviews, that they underestimated the importance of nutrition, and should have included nutrition in the Global Fund application. The PAWC could then have provided food parcels to patients on HAART at the five Global Fund sites, which also happen to be placed in some of the poorest areas in Cape Town.

Slingers (2005)⁶⁶ commented that the Western Cape HAART management team's success can be attributed to a focused team with a 'can do' spirit. She recalled how they approached challenges and worked hard to solve challenges. For example, how they phoned up doctors and nurses and personally asked them to come and work at a HAART site. Cloete (2005)⁶⁷ further reiterated how a management team handles problems and challenges can say a lot about how well functioning the management is.

'One of the key success factors for me is the manner in which we manage challenges.' (Cloete, 2005, pers. comm., 30 Aug)

As the previous section shoved, the management of the ARV programme in Western Cape has been hailed as one of the success factors. Much credit has been given to the leader, Dr Fareed Abdullah and his strong management team. As of January 13 2006, Dr Abdullah has resigned from his position (Keeton, 2006), leaving it to his team to follow up his successful leadership. This

⁶¹ Nevilene Slingers, 1 September 2005, pers. comm.

Nevilene Slingers, 1 September 2005, pers. comm.
 John Frankish, 26 August 2005, pers. comm.

⁶⁴ Nevilene Slingers, 1 September 2005, pers. comm.

John Frankish, 26 August 2005, pers. comm.
 Nevilene Slingers, 1 September 2005, pers. comm.

⁶⁷ Keith Cloete, 30 Aug 2005, pers. comm.

naturally poses a serious challenge for the future. The way the team manages challenges in the future will reveal if the programme is a long-term success.

References

- Abdullah, F. 2005. The Complexities of Implementing Antiretroviral Treatment in the Western Cape Province of South Africa. *Development Update*: 245-264.
- Coetzee, C. & Nattrass, N. 2004. Living on AIDS treatment: a socio-economic profile of Africans receiving antiretroviral therapy in Khayelitsha, Cape Town. *CSSR working paper*. No. 71. Centre for Social Science Research, University of Cape Town.
- Coetzee, D. & Hilderbrand, K. & Boulle, A. & Draper, B. & Abdullah, F. & Goemaere, E. 2005. Effectiveness of the first district-wide programme for the prevention of mother-to-child transmission of HIV in South Africa. *Bulletin of the World Health Organization*, 83 (7)
- Coetzee, D. & Hildebrand, K. & Boulle, A. & Maartens, G. & Louis, F. & Labatala, V. & Reuter, H. & Ntwana, N. & Goemaere, E. 2004. Outcomes after two years of providing antiretroviral treatment in Khayelitsha, South Africa. *AIDS*, 18: 887-895
- Cullian, K. 2003. *Global Fund delay costs lives*. [online] Centre of the Study of AIDS, University of Pretoria. Available at http://csa.za.org/article/articleprint/187/-1/1/ [21 Nov 2005]
- Cummins, P. 2002. Access to Health Care in the Western Cape. *The Lancet*, 360:49-50.
- Department of Health. 2005. National HIV and syphilis antenatal seroprevalence survey in South Africa 2004. Pretoria. South Africa.
- Dorrington, R. & Bourne D. & Bradshaw. D. & Laubscher. R. & Timæus, I. 2001. *The Impact of HIV/AIDS on Adult Mortality in South Africa*. Technical Report, Burden of Disease Research Unit, Tygerberg: Medical Research Council, September.
- Herman, D. 2006. Cape loses top fighter against AIDS as Abdullah resigns post. *Cape Times*. January 9.
- Kasper, T. & Coetzee, D. & Boulle, A. & Hilderbrand, K. 2003. Demystifying antiretroviral therapy in resource-poor settings. *Essential Drugs*

- Monitor, 32:20-21.
- Keeton, C. 2006. Top AIDS doctors join exodus from state service. *Cape Times*. 8 January.
- Médecins Sans Frontières & Infectious Disease Epidemiology Unit, University of Cape Town. 2003. Providing Antiretroviral Therapy at Primary Health Care Clinics in Resource Poor Settings, The experience from Khayelitsha' Activity Report 2003.
- Médecins Sans Frontières & The Department of Public Health at the University of Cape Town & the Provincial Administration of the Western Cape. 2003. Antiretroviral therapy in Primary Health Care: The experience from Khayelitsha Programme in South Africa. World Health Organisation. Geneva.
- Orrell, C. & Bangsberg, D. R. & Badri, M. &Wood, R. 2003. Adherence is not a barrier to successful antiretroviral therapy in South Africa. *AIDS*, 17:1369–1375.
- Provincial Administration of the Western Cape, Department of Health and the Provincial AIDS Council. 2003a. *Proposal to the Global Fund to Fight AIDS, Tuberculosis and Malaria.*
- Provincial Government of Western Cape. 2003b. *Global Fund Aids Breakthrough for Province*. [Online] Office of Western Cape Premier, Statement by Western Cape Premier, Marthinus van Schalkwyk, (17 November 2003)

 Available at www.capegateway.gov.za/eng/pubs/news/2003/nov/53082
 [8 April 2005]
- Provincial Administration of the Western Cape, Department of Health. 2004c. Global Fund work plan. (Unpublished)
- Provincial Administration of the Western Cape, Department of Health. 2004d. Global Fund Monitoring and Evaluation plan. (Unpublished)
- Provincial Administration of the Western Cape, Department of Health. 2005a. The Provincial & District HIV Antenatal Survey 2004.
- Provincial Administration of the Western Cape, Department of Health. 2005b. Six-month Progress Report: 1 July - 31 December 2004 Global Fund Grant Agreement SAF-304-G04-H. (Unpublished)

- Provincial Administration of the Western Cape, Department of Health. 2005c. Six-month Progress Report: 1 January – 30 June 2005 Global Fund Grant Agreement SAF-304-G04-H. (Unpublished)
- Provincial Administration of the Western Cape, Department of Health & City of Cape Town Health Services & Médecins Sans Frontières & Infectious Disease Epidemiology Unit, University of Cape Town. 2005. Comprehensive HIV Service Development at Primary Care Clinics The experience from Khayelitsha; Activity update July 2005.
- Rosenberg, R. 2005. Medical charity to hold on to city HIV clinics until 2007. *Cape Times*, 17 November.
- Statistics South Africa. 2003. Census 2001.
- The Global Fund to fight AIDS, Tuberculosis and Malaria. 2005. *Search programs*. [Online] Available at http://www.theglobalfund.org/search/default.aspx?lang=en&round=3
- The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2006. *Portfolio of Grants in South Africa*. [Online] Available at: http://www.theglobalfund.org/search/portfolio.aspx?lang=en&countryID=saf
 [6 Jan 2006]
- Thom, A. 2005. Western Cape leads the way. [Online] Centre of the Study of AIDS: South Africa. Available at http://www.csa.za.org/article/articleview/364/1/1/ [1 Aug 2005]
- World Health Organisation. 2005. "3 by 5 Progress Report. [Online]. Available at: http://www.who.int/3by5/en/Progressreport.pdf [1 Aug 2005]