HIV Treatment in South Africa: The challenges of an increasingly successful antiretroviral programme

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South Africa has both the most people with HIV in the world and the largest antiretroviral treatment (ART) programme. The programme, now almost a decade old, has been influenced by the complex political responses to the epidemic in the country.

The programme is now internationally recognised as successful despite a slow start, and is responsible for recent dramatic improvements in South African life expectancy. However, the scale and cost of the programme have presented many challenges to the healthcare system and to funders. In addition, evolving HIV treatment guidelines constantly challenge healthcare delivery services, even while promising new data suggest that escalating treatment may be the most effective mechanism for preventing new infections.

This chapter examines the political, policy, programmatic and other issues surrounding the initiation and expansion of the ART programme.

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Introduction

The scale of the South African HIV epidemic remains huge. More HIV-positive people live in South Africa (SA) than in any other country. This is despite the fact that the country’s population is small when measured against those of China, India and the United States of America (USA), all of which acknowledge their HIV epidemics as significant public health issues.1,3 In population size SA dwarfs its neighbours. Combined with a very high prevalence, this means that there are more people with HIV inside its borders than all its immediate neighbours (Botswana, Lesotho, Mozambique, Namibia, Swaziland, Zimbabwe) combined, despite these countries having similar HIV prevalence rates.1,4,5

The HIV epidemic in SA until 1990 had a similar pattern to the European and American epidemics, small in number and predominantly affecting haemophiliacs, men who have sex with men (MSM), and intravenous drug users.6 The 1990s heralded a sudden and dramatic increase in new infections and, despite much research, the drivers of this increase are still poorly understood. Several theories have attempted to explain the increase, from sexual and cultural behavioural issues, to peculiar characteristics of the local virus, to medical practices, to inherent susceptibility of the local population. Data on how needle re-use as part of the syphilis and trypanosomiasis control programmes in the last century provided an explanation for the establishment of a central and East African epidemic do not satisfactorily explain SA’s epidemic.7,9 Commonly cited theories regarding distinct forms of sexual partnering as causally explaining the huge difference between southern African incidence rates and the rest of the world have increasingly been challenged.10 The lack of clarity about the driving forces behind the increase has meant that prevention efforts have been unsuccessful.

SA has several large independently run observational HIV prevalence studies, which have documented the growth of the epidemic in the past two decades, with some of the most accurate statistics on HIV prevalence in the world.5,11-13 Different robust mathematical models – with different assumptions and data use based on different surveys and observed cohorts – have been used to estimate total numbers of infections. These models demonstrate very similar findings and show that between 1.3% and 1.5% of South Africans, or just over 300 000 citizens, are currently infected annually. Some criticism has been expressed of the models’ continued accuracy, when taking into account increasing life expectancy and changes in CD4 thresholds.14 A large and complex HIV-positive paediatric population, previously estimated at 70 000 per year, has been part of the treatment challenge, but has decreased since the advent of effective prevention of mother-to-child transmission (PMTCT) programmes.

The extent of this adult and paediatric epidemic, both in absolute numbers and overall prevalence, has made SA a focus of public health advocates, donors, researchers and political commentators.15 Attention on SA has been magnified, as the world’s largest and arguably most ambitious antiretroviral (ARV) programme is being rolled out across the country at considerable expense.16 Owing to a variety of personal opinions in the ranks of senior leadership within the South African National Congress (ANC) on the existence of HIV and the efficacy of ART, there was little coherence or leadership shown in the approach to HIV and its treatment.17 The Treatment Action Campaign (TAC), a South African civil society and community-based HIV treatment advocacy group, strategically employed mass protest, litigation and media interaction to leverage action from the National Department of Health (NDoH). The TAC together with the then AIDS Law Project (now Section27), a non-governmental organisation (NGO), legally challenged government policy on HIV treatment. Strategic alliances in these legal cases, which included large local clinician groups, such as the Southern African HIV Clinicians Society and Médecins Sans Frontières, allowed for a broad and united front against the government’s denialism, and against pharmaceutical patent holders as a means to decrease antiretroviral costs.5,21-25

The issue of denying HIV care on the basis of whether ART worked or not grew increasingly contentious. Internal to the ruling ANC, several senior members began advocating that treatment be available including Nelson Mandela.26 The Deputy Health Minister Nozizwe Madlala Routledge, a strong supporter of ART treatment, was dismissed in 2007, after she spoke out against government AIDS policy and coordinated broad consultation of a new AIDS plan.23,27,28

In 2009, Dr Aaron Motsoaledi was appointed as Minister of Health by newly elected President Zuma. Motsoaledi immediately made HIV treatment a priority in the NDoH. Since then, political controversy around the ART programme has dissipated. SA was introduced at the 2010 International AIDS Conference as a worldwide treatment success, with senior politicians receiving a standing ovation – a far cry from the country’s reception at the same conference a decade earlier.29

In addition, the South African National AIDS Council (SANAC), responsible for coordination of the HIV response between
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Initial access to ART for state-dependent patients was slow, very doctor-centred and generally confined to large central hospitals, despite large numbers of ill patients that required immediate therapy. Provincial autonomy meant that guidelines were variably interpreted, with reports of some patients requiring protracted adherence training before initiation. This training was often applied in specialist clinics, especially for paediatrics. Some hospitals insisted that in-patient initiation take place. Target setting was often arbitrary, with provinces simply setting ART treatment numbers they decided were practical with little regard for the rapidly escalating HIV disease burden. Delays in start-up and implementation of the programme had profound mortality implications. One academic estimation, which compared the speed of rollout between SA and its neighbouring countries, found that – under the Mbeki reign – conservatively over 300 000 adults died while 35 000 children were unnecessarily infected with HIV due to delays.37

Critically, a severe lack of integration existed between the HIV programme, on the one hand, and both tuberculosis (TB) and antenatal services, on the other, despite evidence that 70% of patients were TB-infected and that half of HIV-positive people were likely to acquire TB during their lifetime, and that over a third of pregnant women were HIV-positive.38 This was partly as a result of the political environment at the time, with some government officials suggesting that the programmes be kept apart, so as not to stigmatise TB patients as all being HIV positive.39 In addition, the TB programme had been underfunded for decades, despite evidence of a rising new incidence problem, and was performing very poorly in terms of cure and completed treatment protocols. This rising burden of TB on the existing health services, with a new focus on targets but without the requisite resources, meant that the TB programme responded poorly to the integration demands of the HIV programme. This began to change from 2008, partly with the recognition of the TB prevention and treatment benefits of rapid ART initiation and recognition of the multidrug-resistant (MDR)-TB epidemic. Currently, the programmes still have much to do regarding integration, but new diagnostics, new drugs and the recognition of infection control have instilled much needed vitality within the TB programme.40

Antenatal services integration issues were complex. Initially, the PMTCT programme relied largely on HIV testing in pregnancy, coupled with a very simple prevention regimen during labour and immediately after delivery.41 As more effective but complex drug regimens became part of the programme, several operational deficiencies within the antenatal services began to have an impact on PMTCT provision of care. In particular, late booking within the service and the high loss to follow-up after initiation of ART within antenatal services were challenges. Referral to dedicated ART sites by antenatal services simply led to an unacceptably high loss to follow-up rate. The establishment of treatment sites within the antenatal services was attempted, with variable success.42 Ambitious expanded PMTCT guidelines have been heavily debated, with many arguing that services are not strong enough to sustain the newer treatment options.

Under Minister Motsoaledi, the HIV programme began normalising.15,43 The Minister publically insisted on better integration between the HIV, TB and antenatal programmes, and questioned why nurses were not allowed to initiate and monitor ART, as they were doing in other countries. New guidelines allowed
for a shift from a cheap but toxic and twice-daily dosed drug, stavudine, to a better tolerated once-a-day regimen for both adults and children, with simplified monitoring, expanded treatment for TB and improved regimens for the PMTCT.\textsuperscript{44} Large reductions in tender ART price secured in cooperation with the Clinton Health Access Initiative and the President’s Emergency Plan for AIDS Relief (PEPFAR), with decreased monitoring and task shifting to lower tiers of staff, meant that the annual inclusive cost of treatment began to drop below R5 000.\textsuperscript{45,46}

Coverage of ART expanded rapidly after 2008, and Statistics South Africa (StatsSA) and the NDoH announced that South African life expectancy was increasing for the first time in decades owing to the success of the rollout. Data suggested that MTCT had dramatically decreased with the effective use of ART, leaving fewer children to treat.\textsuperscript{11,19} As the politics around HIV and ART subsided, the programme began to focus on setting more long-term goals, such as retention in care and raising the CD4 count at initiation. Newer guidelines focused on accelerating access to ART and single-dose formulations, expanding access to all TB patients and infants, and improving the quality of PMTCT regimens.\textsuperscript{19,44}

Challenges in ART scale-up

In 2008, the Free State stopped initiation of new patients on ART almost overnight, citing a lack of funding.\textsuperscript{47} This occurred during the transition from the Tshabalala-Msimang era to the leadership of Barbara Hogan, a veteran from other government financial oversight agencies. Hogan publically expressed concern about the levels of poor financial planning and overall performance within the department.

The Free State took several months to reverse the decision to suspend ART provision, despite extensive mobilisation of civil society and threats of legal action. Money was urgently transferred from the NDoH to pay for medication, funds that were initially used by the province to pay other outstanding health bills. The Southern African HIV Clinicians Society conservatively estimated that during the interruption of services about 30 people died daily unnecessarily within the province while large numbers of infants were infected.\textsuperscript{48} The crisis revealed that health financial and programme planning within all the provinces was poor with the exception of Western Cape. At the time, the health departments of KwaZulu-Natal (KZN) and Gauteng had spent their entire budgets, but did not curtail services. In 2012, the Free State, Gauteng and Limpopo were subsequently put under curatorship by the Treasury as a result of poor financial management.\textsuperscript{49}

The ART programme became the ‘canary in the coal mine’, as many donor programmes demanded regular reporting. Antiretroviral drug stock-outs and restrictions on access to ART, poor laboratory performance and other indicators were investigated over the years that followed and usually revealed broader systems failure within the health departments. At the start of 2012, antiretroviral stock-outs of one of the first-line adult therapy drugs, tenofavor, because of poor coordination between the roleplayers meant that large numbers of patients had the drug substituted with more toxic but widely available drugs. In some cases, paediatric formulations were inappropriately used, which led to a shortage in ART for this subpopulation too. Drug stock-outs continued to be a problem throughout 2012, largely due to poor coordination between provincial supply depots and clinics. Additionally, the non-payment of suppliers led to multiple interruptions in other services. At the time of writing, fraud and corruption investigations into large drug-supply depots in Gauteng and the Eastern Cape were being conducted, again accompanied by broad reports of stock-outs of medicines for several chronic diseases.\textsuperscript{50} HIV is no longer a routine health political flashpoint. Activist organisations such as the TAC have focused more on securing safer and more varied medication within the state programme and the AIDS Law Project has been incorporated into a much broader legal social movement – Section27 – which continues to play a role, although a lower profile one, in the field of health.\textsuperscript{51}

Despite the large supply-line and operational difficulties, the transformation of policy responses to the HIV epidemic – from the Mbeki to the Zuma era – could not have been more profound. Widespread acknowledgement of the scale of the HIV problem now exists, with none of the mixed messages of the previous administration. SANAC, which was supposed to direct the overall HIV responses from every sector within the country, has been reconstituted and has new and dynamic leadership.\textsuperscript{52} Civil society also now appears to play a far more directive role in the HIV response, which includes a stronger coordinating role when it comes to donors.

South African treatment debates

The South African public and private ART guidelines have broadly followed WHO guidelines, although amendments have often been delayed in the case of public guidelines. Drug choices and laboratory monitoring currently reflect WHO and regional guidelines and are similar to the guidelines in many developed countries. Exceptions are the restrictions in access to more expensive medicines and less laboratory monitoring.\textsuperscript{53,54} Theoretically, a South African state-dependent patient should receive similar ARVs to counterparts in New York or London. This has been the result of widespread activism, with litigation threats, and of negotiations between generic manufacturers and the originator. Patients with highly drug-resistant virus are an increasing problem. The NDoH and Southern African HIV Clinicians Society are currently formulating guidelines for both the public and private sectors, with new provision of ART for these patients in the state sector.\textsuperscript{46}

A large international public health debate hinges on “when to start” in terms of immunological criteria, measured by the CD4 count. There is clear benefit to the individual in starting HIV treatment before reaching a CD4 count of 350 cells/ul. In addition, large benefits in terms of TB control, maternal mortality and MTCT are realised at this level.\textsuperscript{55} During 2012, SA raised the treatment threshold to a CD4 count from 200 to 350 cells/ul for all; pregnant women and anyone with TB are given ART irrespective of CD4 count.\textsuperscript{19,44} The big HIV treatment and prevention news of 2011 was a study called HPTN 052, which demonstrated that treating people on ART essentially renders them non-infectious.\textsuperscript{56,57} This study, coupled with several compelling observational studies, has led to widespread and popular calls for the introduction of “treatment as prevention” – initiation of antiretrovirals irrespective of immune status. However, the study’s early data demonstrated marginal clinical benefit for the individual’s health when starting early, which leads to the question:
would people take medication for their partner’s health when the benefits to themselves are small?56,58

This has yet again drawn the “when to start” adult debate into sharp focus. Criticism of the call to “treat everyone” has varied from scepticism about whether health systems would cope with a large number of healthy patients entering the system to the lack of better evidence for community-level impact, to costs associated with expanding the programme (see Table 1). At present, little appetite is apparent from the NDoH for increasing the 350 threshold because of concerns about escalating cost and increased burden on healthcare facilities.

For children, there is clear evidence, that earlier treatment is beneficial below the age of two years, and is now a South African programme recommendation.59 Because the volumes of antiretrovirals for children are much smaller than for adults, and the choice of medications and formulations different, children are more susceptible to supply-line issues than adults, and have fewer options for immediate substitutions. Fortunately, the PMTCT programmes in the country have been relatively successful, with transmission rates below 3%, down from about 30%.19 However, HIV-positive children and adolescents are underserved, and specific service delivery models are probably required for this group.

### Table 1: ‘Starting earlier’ versus ‘starting later’ – public health implications and individual benefit55-57, 60-63

<table>
<thead>
<tr>
<th>Benefits of starting ART earlier</th>
<th>Disadvantages of starting ART earlier</th>
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<tbody>
<tr>
<td>Definite decrease in transmission to sexual partners</td>
<td>Possible decreased adherence as healthier people take treatment</td>
</tr>
<tr>
<td>Definite decrease in incidence of TB</td>
<td>Definitely more time spent in medical facilities – out-of-pocket costs, impact on employment, exposure to TB</td>
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<tr>
<td>Possible decrease in long-term ‘non-AIDS’ complications – cardiovascular, renal and liver disease</td>
<td>Possible prolonged exposure would mean more possibility for resistance and toxicity to develop</td>
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<tr>
<td>Definite decrease in transmission to infants in PMTCT and breastfeeding mothers</td>
<td>Definite increase in immediate cost</td>
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<tr>
<td>Possible better retention in care</td>
<td>Definite increased treatment burden on already dysfunctional healthcare system</td>
</tr>
<tr>
<td>Definite prevention of movement into the high-risk mortality and morbidity zone, hence less hospitalisation</td>
<td>Definite increase in balance of payment deficit, as ARV ingredients are being sourced internationally</td>
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Operational issues around treatment

The efficacy of the programme has generally been good, with good viral suppression, retention in care and clinical outcomes reported across multiple sites and cohorts throughout the country.

A major obstacle in the first four years of the programme, partly driven by the hostility to the ART programme at the NDoH level, was the issue of accreditation of facilities to provide ART services. Facilities could only provide ART care if they were accredited, with specific standards related to staffing and clinical space. Ostensibly, this was a worthy procedure (although not required for other forms of chronic care), as it meant that facilities were assessed for ability to deliver ART services effectively. However, the assessments were often not matched by necessary resources to address deficiencies; nor were there follow-up processes to ensure that facilities were still providing care at the prescribed level. The process of accreditation fell into disuse several years after the programme started, as decentralisation of the growing numbers of patients became far more common.
The movement to a nurse-based initiation and monitoring HIV programme – as implemented in most other African countries – was very slow, and the programme therefore remains largely hospital based and doctor centred. However, research has demonstrated that nurse-based care is safe and effective if adequate training and referral mechanisms exist. Significant resistance has been shown by nurses and doctors to the treatment of children. Children are more complex to manage in terms of both dosing and adherence, which often has to be negotiated with a caregiver.

Medication stock-outs have emerged as a major threat to the programme, as detailed above. The sheer scale of manufacture and tight margins, reliance on international sources for active pharmaceutical ingredients, and intense competition between drug companies mean that manufacturing is susceptible to disruption if anything goes wrong. Poor forecasting and untimely ordering by provinces further stress manufacturing capacity. Even where drugs are available, supply lines seem poor, with slow and often inadequate distribution from the depots to local clinics.

Laboratory infrastructure was sorely tested by the ART programme. The National Health Laboratory Services (NHLS) provides comprehensive laboratory services to all government-run facilities. SA’s decision to use viral load monitoring created an unintended crisis within the NHLS – the machines used for this purpose were not constructed to deal with large volumes of samples. Suddenly new technicians and laboratory space were required across the country, and the NHLS had to decide to what extent the service needed to be centralised. In addition, constraints in CD4 monitoring capacity escalated, along with polymerase chain reaction testing for infants – both expensive procedures. Fortunately, the NHLS has an active Research and Development department, which had earlier identified a simpler and cheaper way to measure CD4 accurately and to use dried blood spots to facilitate infant testing. In 2011, a funding crisis hit the NHLS. Gauteng and KZN defaulted on payments that totalled billions of rands of debt owed to the NHLS. The NHLS, unable to carry the large deficit, lost a large number of skilled staff, as rumours of bankruptcy loomed until a partial settlement was achieved with the NDoH. Premature implementation of the GeneXpert rapid TB diagnostic machine at a facility level further stressed the system, when the NHLS was asked to expand access to the machine for poorly prepared clinics. However, the NHLS is an important component of new implementation programmes [such as the new proposed cryptococcal prevention programme] and is an underutilised M&E resource.

Access to care of specific subpopulation

Adolescent patients pose a specific challenge to ART programmes. While many female adolescents acquire HIV during their late teens, most adolescents who require ART acquired HIV perinatally. Childhood HIV frequently leads to stunting, especially when HIV diagnosis and ART are delayed. This adds to the psychological complexity of an already difficult time in the life of an individual. Limited data suggest that many parents delay informing children about their diagnosis, for fear of inadvertent ‘playground disclosure’, sometimes into adolescence. Attempts to provide specialised adherence, psychological and treatment services are hampered by the wide distribution of this age group throughout the country and the lack of a functional school health programme.

Foreigners are eligible for ART through the public health sector. A circular in 2005 from the NDoH clarified that possession of a green identity book, previously used as an entry criterion for accessing care, was not required for access to public health facilities. In areas with high densities of non-nationals, such as Hillbrow in Johannesburg, treatment programmes have demonstrated HIV treatment results at least as good as those seen with South African citizens. Widespread anecdotes of services being restricted by xenophobic healthcare staff have been reported. However, in contrast to other countries, SA has a relatively non-restrictive access policy to primary care services. This means that treatment for TB and HIV, when uncomplicated, can be given to foreigners – even those illegally within the country.

Data suggest that African MSM are at higher risk for HIV acquisition than is the general population. This also applies in SA. Access to this group is largely hampered by the fact that the profession is criminalised and that this population is poorly understood. The new NSP calls for the decriminalisation of sex work as a mechanism to address HIV prevention more efficiently and get sex workers into care.

While sex workers contribute only a small percentage of estimated HIV infections within the South African epidemic, they are identified as a discrete and important subgroup for prevention and treatment services. Access to this group is largely hampered by the fact that the profession is criminalised and that this population is poorly understood. The new NSP calls for the decriminalisation of sex work as a mechanism to address HIV prevention more efficiently and get sex workers into care.

Gender access has also been an issue, with disproportionate numbers of women accessing the ART programme. One reason may be that women are often more familiar with clinical services, as they access these routinely for pregnancy and contraceptive services and are often caregivers to children. This familiarity with services may mean that they attend earlier and more consistently once they get ill. Other reasons may be more complex masculine perceptions around illness. Currently, over 60% of the adults that access the programme are women. This is grossly disproportional to the distribution and profile of the epidemic by gender. Accessing men with more innovative approaches, such as the current male circumcision or HIV testing programmes in workplaces, may improve this ratio.
Financing of the ARV programme

How countries will probably deal with the continuing and increasing HIV treatment burden appears to vary according to prevalence and income. Low-prevalence countries – such as Vietnam, Brazil and Thailand – internally fund their responses to the epidemic while poorer high-burden countries remain heavily dependent on donor funding.\(^{16,78}\) Currently 50% to 75% of the cost of the programmes in most countries is consumed by antiretrovirals. SA is seen as a unique case – high HIV burden, but with the ability and necessary resources to deal with the growing number of people that need treatment.

Although its initiation and expansion were initially supported by donors, the South African programme was self-sustained from the beginning, as it was almost entirely funded from the national fiscus. In most developing countries, over 80% of the HIV programmes are funded by donors. In SA, this figure has not exceeded 20% at any point and it is currently probably less than 10%.\(^{16}\) At present the HIV programme consumes just under 10% of the South African government’s total health expenditure and 0.82% of the country’s GDP. This last figure is projected to rise to 1.13% in 2015 and thereafter to fall during the next 15 years.\(^{16}\) As patients accrue on the programme, the medication budget will increase commensurately. One modelling exercise suggests that the HIV programme will double in cost between 2010 and 2017 and projects that SA will spend US$ 64 per citizen to combat the disease by 2031.\(^{16}\) The overall cost of the programme has drawn criticism from politicians, health planners and the Treasury.\(^{79}\)

Detailed costing of the public ART programme has allowed for identification of cost-saving potential.\(^{45,46}\) In 2010, the NDoH convened a large group of clinicians, which advised decreasing the number of routine laboratory tests. This was supported by local data, which suggested this could be done safely. A similar consultation on choices of antiretrovirals in first-, second- and subsequent regimens occurred in 2012, and a R6 billion tender has been awarded for the 2013-2014 period.\(^46\)

The largest part of the cost of the ART programme in SA is staff costs, driven by relatively high health salaries when measured against other African countries. Task shifting of ART to less skilled and lower paid staff has been shown to be effective in SA,\(^{80,81}\) but the move to nurse-based ART initiation and monitoring only really began in 2010. This was despite several successful and innovative projects within KZN years prior to this date.

This delay in moving to a nurse-controlled model of care meant that there was a disproportionate focus on hospital-based and doctor-driven ART clinics. Helen Joseph Hospital’s HIV clinic in central Johannesburg had almost 30 000 patients on ART in 2012\(^b\) and may be the largest ART clinic in the world, despite efforts to down-refer patients. More decentralised models in the inner city in Johannesburg and elsewhere have successfully demonstrated that primary health clinics can effectively initiate and monitor treatment.\(^{82}\) However, these decentralised models rely on constant support, especially for up-referral of patients.

In addition to task shifting, the idea of an informed patient has gained credibility within programmes. High levels of adherence and problem-solving ability have been seen in patients who have been taught about their illness and their medication. Excellent adherence levels, previously only seen in transplant programmes, have been seen in most well-run ART programmes. The contrast with other programmes has been noted by several commentators, including MSF. Spontaneous patient interventions – protests over medication stock-outs, arranging medication ‘pick up’ clubs – have been supplemented by support and adherence clubs in several pilot projects. These initiatives work in conjunction with community mobilisation and treatment literacy campaigns. In communities with high treatment literacy interventions, mobilising protests around treatment interruptions, perceived poor service delivery or other programme and policy issues has meant direct engagement between patients and their communities, and implementers and politicians. This engagement has often led to the rapid resolution of problems.

The rise of donor agencies in support of ART

International funding for HIV, TB and malaria reached US$ 26.66 billion in 2010.\(^{78}\) The Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates that 26 out of the 33 worst-affected countries are reliant on donors for more than half of their HIV spending.\(^1\) Donors have often been accused of driving a homosexual agenda or of driving corruption because of poor oversight of spending.\(^{74,84}\) Concern has been expressed in donor-supported countries, where ambitious and expensive amendments to HIV treatment guidelines have been made with no evident consideration for the cost. PEPFAR and the Global Fund programmes have been criticised for allocating a large percentage of their contribution to middle-income countries, although these have been hyper-prevalent countries such as SA, Botswana, Namibia and Swaziland. PEPFAR has also been accused of driving several controversial programmes such as those that discourage condom use.

Donor engagement with HIV treatment programmes in SA has been significant. In 2003, USA President George W. Bush announced the launch of PEPFAR, the multi-billion dollar programme that largely supports HIV treatment, care and prevention programmes. PEPFAR now accounts for half of all international spending on HIV! PEPFAR’s large donation to SA, coupled with ambitious international treatment targets, helped kick start the South African ARV programme in 2004.

PEPFAR was not immune to criticism. The onerous application process, M&E requirements and financial reporting placed a large burden on recipient NGOs. Critics have charged that this deflected already overburdened organisations towards administrative tasks and away from their core business. In addition, there was suspicion regarding the conservative politics of the USA, especially when PEPFAR programmes in other countries were seen as undermining condom use and where a large percentage of prevention funding was focused on controversial abstinence programmes. However, the bulk of its funding in SA went towards funding direct service delivery, medication, and training and salaries supporting greater access to treatment.
Recently, controversy has surrounded the withdrawal of funding by donor programmes. PEPFAR has announced a 50% reduction in funding over five years to 2017, requiring most PEPFAR-funded programmes to transfer staff and patients back into the government health sector (referred to by the Health Minister as the “nationalisation” of the HIV programme). In addition, the influx of donor funding meant many NGOs grew dramatically, and the withdrawal of funding has recently led to down-sizing. In some areas, the South African NDoH is ill-prepared for this influx of patients, which has led to outcries that patient care has been compromised. The government, which often deals with multiple stock-outs of drugs, has not provided care at the level that many NGOs have been able to do with focused HIV treatment and care programmes. As a consequence the transition process has been fraught with delays and disturbances in some places.

Similarly, the Global Fund to Fight AIDS, TB and Malaria, formed in 2002, has had a major impact on treating HIV, with the Fund claiming that 8.7 million lives have been saved by its programmes internationally. Despite evidence that the Fund is in most cases well administered – accounting for one-fifth of all HIV-linked investment in 2009 – several high-profile cases of corruption and poor programme implementation in 2011 dented the Fund’s image. This occurred alongside the global recession and many national governments not meeting their obligations in terms of pledges to the Fund. The effect was the ‘cancelling’ of new funding obligations to many poorer countries that had criticallyunderfunded ARV programmes. Many commentators have said that this was a cynical way for donor governments to skirt their commitments. The Global Fund has had a long history with SA, with over US$ 300 million flowing to the country, two-thirds of which is being spent on the ART programme.

Other large funders, including the Netherlands and Nordic countries, European Union, DFID, and the Bill and Melinda Gates Foundation, continue to fund aspects of SA’s HIV response and have been major supporters of NGOs. However, the recession and financial crisis have meant that many funding programmes have been rationalised and funding amounts decreased. These challenges have led to a renewed focus on internal funding of non-governmental groups and there has been criticism of external funding mechanisms and the lack of local accountability of internal funding of NGOs through large donors such as the National Lottery.

Conclusion

Expanding treatment access up to the CD4 count of 350 cells/ul threshold remains the priority for the ARV programme. This will realise the benefits of ‘treatment as prevention’, decreased maternal mortality and paediatric infections, decreased burden on outpatient and inpatient clinical care, and decreased community-wide TB. In addition, economic consequences, especially out-of-pocket expenses for patients, will decrease. Continued focus on regular HIV testing is required to ensure that treatment is initiated as close to the CD4 350 threshold as possible. The NSP plans to put over 400 000 people on treatment annually, a situation that will continue for as long as prevention programmes are not effective. Challenges lie in the continued assurance of adherence and a growing number of patients requiring ‘third-line’ medication. Special groups, such as adolescents, mobile populations, refugees, foreigners, sex workers and others, require tailored services.

However, the state of many public health systems, especially in terms of medicines supply and service delivery, threatens the expansion of successful treatment programmes. Interventions related to the proposed National Health Insurance system and the establishment of core standards of care for all health facilities will hopefully address these challenges. However, creative thinking is required to allow the huge number of healthy patients on ART to avoid unnecessary (and dangerous in the case of TB exposure) visits to health facilities. In many other countries patients with chronic diseases, including HIV, have laboratory results reviewed distantly and their medication delivered at home if they have no complaints. The management of HIV lends itself to this approach, as the vast majority of patients are rendered asymptomatic.

The ARV rollout has been a complicated and qualified success, teaching us much about public health programmes that have grand ambition. Maintaining and improving the rollout in the context of complicated policy and operational challenges will, however, continue to challenge us if we are to maintain this success.
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