

AIDS AND THE SCIENTIFIC GOVERNANCE OF MEDICINE IN POST-APARTHEID SOUTH AFRICA

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ABSTRACT

AIDS policy in post-apartheid South Africa has been shaped by persistent antipathy towards antiretroviral drugs (ARVs). This hostility was framed initially by President Mbeki's questioning of AIDS science and subsequently by direct resistance to implementing prevention and treatment programmes using ARVs. Once that battle was lost in the courts and in the political arena, the Health Minister, Tshabalala-Msimang, continued to portray ARVs as 'poison' and to support alternative untested therapies. Demographic modelling suggests that if the national government had used ARVs for prevention and treatment at the same rate as the Western Cape (which defied national policy on ARVs), then about 171,000 HIV infections and 343,000 deaths could have been prevented between 1999 and 2007. Two key scientific bodies, the Medicines Control Council (MCC) and the Medical Research Council (MRC) fall under the ambit of the national Department of Health. Although notionally independent, both have experienced political interference as a consequence of their scientific approach towards AIDS. AIDS policy improved after the Deputy President was given responsibility for coordinating AIDS policy in 2006. However, the undermining of the scientific governance of medicine is a legacy that still needs to be addressed.

AIDS POLICY IS A DEFINING FEATURE OF POST-APARTHEID SOUTH AFRICA and its greatest tragedy. In 1990, when the African National Congress (ANC) was unbanned and South Africa began the transition to democracy, HIV prevalence was low, but rising rapidly. ANC military commander Chris Hani warned that if left unattended AIDS would 'result in untold damage and suffering by the end of the century'.¹ Unfortunately, his prediction came true: by 2007 almost one in five adults was infected with HIV (Figure 1). Although it would have been impossible to prevent

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1. Quoted in Anso Thom and Kerry Cullinan, 'Responses to HIV/AIDS', *Health-e News*, 28 November 2004. Available on <<http://www.health-e.org.za/news/article.php?uid=20031154>> (30 April 2007).

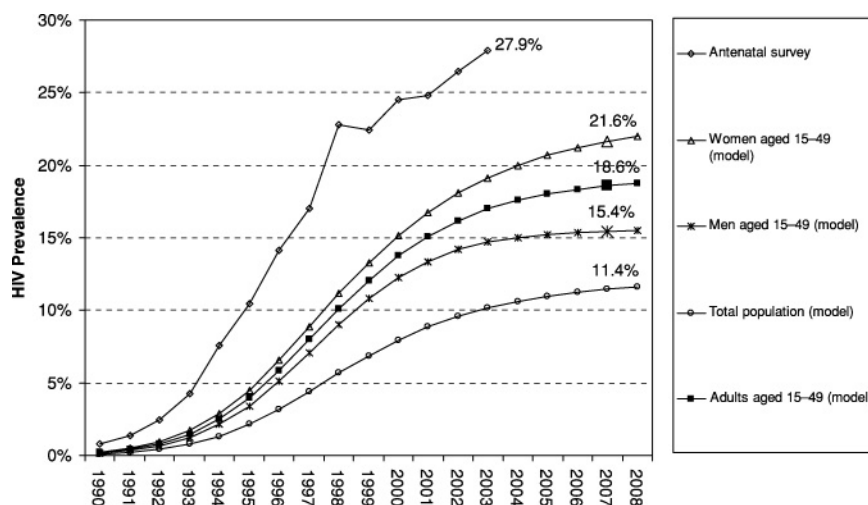


Figure 1. HIV prevalence in South Africa. Source: Data and projections from the ASSA2003 Demographic Model, <www.assa.org.za>.

the African AIDS epidemic from crossing into South Africa,² better policies could have saved thousands of lives.

In the early 1990s, a series of consultative meetings resulted in the formation of the National AIDS Convention of South Africa in 1992 and in the production of its comprehensive and progressive 'AIDS Plan' a year later.³ The plan was subsequently adopted by the new Government of National Unity in 1994 and two members of the drafting team became the first post-apartheid Health Ministers (Nkosazana Dlamini-Zuma, and Manto Tshabalala-Msimang). The stage seemed to be set for a uniquely effective drive against AIDS. Yet hopes were soon dashed as Dlamini-Zuma became embroiled in a scandal over a badly conceived and inappropriately funded AIDS awareness play (*Sarafina II*) and resisted the introduction of antiretroviral drugs (ARVs) for mother-to-child transmission prevention (MTCTP).⁴

Government opposition to the use of ARVs for either prevention or treatment hardened when Mbeki became President.⁵ In the early years of his presidency (June 1999–October 2000), he championed a small group of

2. John Iliffe, *The African AIDS Epidemic: A history* (James Currey, Oxford and Double Storey, Cape Town, 2006) p. 43.

3. Helen Schneider and Joanne Stein, 'Implementing AIDS policy in post-Apartheid South Africa', *Social Science and Medicine* 52, 5 (2001) pp. 723–31.

4. Nicoli Nattrass, *Mortal Combat: AIDS denialism and the struggle for antiretrovirals in South Africa* (University of KwaZulu-Natal Press, Pietermaritzburg, 2007), Chapter 3.

5. For a history of South African policy towards the use of ARVs, see Nattrass, *Mortal Combat*.

AIDS denialists⁶ who believe that HIV is harmless and that AIDS symptoms are caused by malnutrition, drug abuse and even ARVs themselves. After Mbeki's withdrawal from public commentary on AIDS in October 2000, his Health Minister, Tshabalala-Msimang, took the agenda forward by continuing to resist the introduction of a national MTCTP programme until forced to yield by the Constitutional Court, and by resisting the introduction of chronic highly active antiretroviral therapy (HAART) for AIDS-sick people until a Cabinet revolt in late 2003 forced her to back down on this too. However, she continued to undermine the HAART roll-out, for example by supporting unproven alternative therapies and by describing ARVs as 'poison'.⁷

It was only in late 2006, following widespread condemnation of Tshabalala-Msimang's approach to AIDS treatment at the Toronto International AIDS conference, that responsibility for AIDS policy was transferred (by a Cabinet decision) to the Deputy President, Phumzile Mlambo-Ngcuka. When Tshabalala-Msimang went on sick leave in October 2006, the deputy Health Minister, Nozizwe Madlala-Routledge, spoke out in favour of HAART and condemned past government policies as being hamstrung by 'denialism at the highest levels'. She and the interim Minister of Health (Jeff Radebe) started working more constructively with civil society organizations and health professionals. This process resulted in a new 'National Strategic Plan' to cut HIV infections in half and to increase HAART coverage dramatically to 80 percent by 2011,⁸ and in a restructured and reinvigorated South African National AIDS Council (SANAC). But while these shifts were a major improvement to the policy terrain, the momentum was lost when Tshabalala-Msimang returned to duty. For example, an agreement to provide ARVs in prisons was reneged upon. Madlala-Routledge was sidelined in the Department of Health for most of 2007, and then fired by Mbeki in August 2007 (after describing the situation in South Africa's hospitals as a 'national emergency').⁹ Tshabalala-Msimang continues to promote traditional healing whilst at the same time casting aspersions on ARVs.¹⁰ As argued below, this is rooted in one of the most pernicious legacies of AIDS denialism: the undermining of

6. AIDS denialists prefer to call themselves 'dissidents'. However, as they simply deny the existing scientific evidence, they are more appropriately termed 'denialists' (see Nattrass, *Mortal Combat*, pp. 24–33).

7. Nattrass, *Mortal Combat*, p. 99.

8. Department of Health, 'HIV and AIDS and STI Strategic Plan for South Africa: 2007–2011' (Draft 9, Department of Health, Pretoria, 14 March 2007; <<http://www.doh.gov.za/docs/misc/stratplan-f.html>>).

9. Madlala-Routledge was ostensibly fired for taking an unauthorized trip to an AIDS conference in Spain, but this was widely interpreted as an excuse (see reports available on <www.aidstruth.org>).

10. See press report, 'Manto sounds ARV alarm', 7 August 2007 (available on <<http://iafrica.com/news/sa/343186.htm>>).

scientific approaches to understanding the AIDS epidemic and to regulating purported therapies for it.

Mbeki's challenging of AIDS science

The first confrontation between Mbeki and the scientific governance of medicine occurred in 1997 when he was Deputy President. This so-called 'Virodene saga' began when University of Pretoria scientists 'Ziggie' and Olga Visser informed the Health Minister (Dlamini-Zuma) that dimethylformamide, an industrial solvent they called 'Virodene', helped AIDS patients but that the 'AIDS Establishment' was blocking their research.¹¹ The Health Minister responded by inviting the Vissers and some of their patients to a Cabinet meeting. Writing in the ANC magazine, *Mayibuye*, Mbeki described what a 'privilege' it was 'to hear the moving testimonies of AIDS sufferers who had been treated with Virodene, with seemingly very encouraging results'.¹² After giving the Vissers a standing ovation, the Cabinet resolved to help them win approval for a scientific drug trial. In this respect, there are distinct echoes of the Kenyan experience, where on the basis of initial (and faulty) trials of alpha interferon (dubbed 'Kemron'), President Moi threw his weight behind this supposed miracle cure.¹³ However, to Mbeki's evident dismay,¹⁴ South Africa's regulatory authority, the Medicines Control Council (MCC), found fault with the Vissers' underlying scientific rationale for the study, and with their proposed clinical trial design. Despite political pressure and a subsequent restructuring of the MCC by the Health Minister,¹⁵ the body continued to turn down subsequent applications for a Virodene trial because they lacked scientific merit and posed clear risks for patients.

According to Myburgh, it was the Vissers who introduced Mbeki to AIDS denialist claims about ARVs when they alerted Mbeki to an exchange of newspaper articles between Anthony Brink (a magistrate with no training in medical science) and the president of the Southern African HIV/AIDS

11. James Myburgh, 'The response of the ANC and Thabo Mbeki to the HIV/AIDS epidemic 1997–2002' (seminar presented at the Interdisciplinary AIDS seminar series, Oxford University, 23 November 2005).

12. Thabo Mbeki, 'ANC has no financial stake in Virodene', *Mayibuye*, March 1998 <<http://www.anc.org.za/ancdocs/pubs/mayibuye/mayi9801.html#Contents>> (30 April 2007).

13. Goran Hyden and Kim Lanegran 'AIDS, policy and politics: East Africa in comparative perspective', *Policy Studies Review* 12, 1 (1993) pp. 47–65.

14. Mbeki, 'ANC has no financial stake'.

15. See Peter Folb, 'Medicines Control Council: setting the record straight', *South African Medical Journal* 88, 10 (1998), pp. 498–502 and A. Gray, T. Matsebula, D. Blaau, H. Schneider and L. Gilson, 'Policy change in a context of transition: drug policy in South Africa: 1989–1999' (Centre for Health Policy, School of Public Health, University of the Witwatersrand, 2000).

Clinicians Society, Dr Des Martin.¹⁶ In his article 'AZT: a medicine from hell', Brink defended the Health Minister's decision not to make AZT (Zidovudine) available for MTCTP, saying that AZT was so toxic that prescribing it 'was akin to napalm-bombing a school to kill some roof-rats'.¹⁷ Martin responded by pointing out that ARVs had resulted in a 40 percent decline in AIDS mortality in the United States between 1995 and 1997, and that AZT has been shown to cut maternal transmission by 67 percent. He agreed that the toxicity of AZT was a 'very real issue' requiring constant vigilance on the part of clinicians. However, its benefits for MTCTP rendered the drug in his view, 'a medicine from heaven'.¹⁸

In some respects, this exchange rehearsed the often emotional clash of perspectives over AZT in the United States during the early 1990s.¹⁹ However, by 1999, the proven success of AZT had shifted the scientific consensus firmly in its favour.²⁰ The claims by AIDS denialists such as Peter Duesberg that AZT caused AIDS rather than helped prevent or treat it, had by this time been thoroughly discredited.²¹ This, however, had no discernible impact on the die-hard AIDS denialists who continued to assert that AZT was dangerous and that none of the evidence to the contrary should be believed.²² Unfortunately, it appears that Mbeki took their claims seriously enough to launch an attack on AIDS science's support for ARVs and to delay their introduction in South Africa.

Mbeki launched his first broadside as President when, in October 1999, he informed the National Council of Provinces that AZT was 'toxic' and asked the Health Minister to find out 'where the truth lies'.²³ This resulted in the setting up of the Presidential AIDS Advisory Panel (half its members orthodox scientists, the other half AIDS denialists) the following year.

In his opening address to the Panel, Mbeki described how he had 'ploughed through lots and lots of documentation' in an effort to understand the 'controversy around these matters'.²⁴ Such self-education in science is

16. Myburgh, 'The response of the ANC'.

17. Anthony Brink, 'AZT: a medicine from hell', *The Citizen*, 17 March 1999.

18. Des Martin, 'AZT: a medicine from heaven', *The Citizen*, 31 March 1999.

19. Stephen Epstein, *Impure Science: AIDS, activism and the politics of knowledge* (University of California Press, Berkeley, CA, 2006).

20. For scientific references to the proven benefits of ARVs and to the falsity of AIDS denialist claims, see <www.aidstruth.org>. See also Nattrass, *Mortal Combat*, Chapter 2.

21. See, for example, Jon Cohen, 'The Duesberg phenomenon', *Science* 266, 5191 (1994), pp. 1642–9 and P. Galea and J. Chermann, 'HIV as the cause of AIDS and associated diseases', *Genetica*, 104, 2 (1994), pp. 133–42. For further evidence debunking AIDS denialism, see <www.aidstruth.org>.

22. Nattrass, *Mortal Combat*, Chapter 2.

23. Thabo Mbeki, 'Address to the National Council of Provinces, Cape Town, 28 October 1999'. <<http://www.anc.org.za/ancdocs/history/mbeki/1999/tm1028.html>> (30 April 2007).

24. Thabo Mbeki, 'Remarks at the first meeting of the Presidential Advisory Panel on AIDS, Pretoria, 6 May 2000'. <<http://www.anc.org.za/ancdocs/history/mbeki/2000/tm0506.html>> (30 April 2007).

reminiscent of the way that AIDS activists in the USA came to understand their disease and engage with research scientists about treatment.²⁵ But unlike those early AIDS activists, Mbeki was head of state and living in a context where the science of AIDS was well established. Why did he not instead seek the advice of South Africa's internationally recognised medical scientists – including for example, Malegapuru Makgoba, an immunologist and head of the Medical Research Council (MRC)? The answer, it seems, was that Mbeki had adopted a distrusting stance towards the scientific establishment (perhaps because of his distrust of the MCC's rejection of Virodene), and was poised to argue with and challenge scientists rather than seek their advice. He subsequently engaged in an unproductive debate with Makgoba and Michael Cherry (a zoologist and part-time correspondent for *Nature*) over AIDS science and included AIDS denialists in the correspondence.²⁶

When there is a stand-off of this kind, the issue of who to believe boils down to credibility and scientific authority. Most non-specialists opt to trust mainstream science, on the reasonable assumption that evidence-based scientific enquiry coupled with peer review generates the best available information. While it is true that scientific advance may be shaped by commercial interests, that people with an intellectual or material stake in an existing paradigm may resist the implications of new evidence as long as possible,²⁷ and that the construction of scientific fact can be a contested social process,²⁸ major scientific advances (such as the discovery that AIDS is caused by HIV and that ARVs help fight it) are ultimately achieved through evidence-based science. AIDS denialists, however, refuse to accept such findings. Thus, despite being presented by evidence from South African scientists showing that HIV-infected babies succumbed rapidly to AIDS and that ARVs reduced maternal transmission of HIV substantially,²⁹ the denialists on Mbeki's panel simply asserted that 'AIDS would disappear instantaneously if all HIV testing was outlawed and the use of antiretroviral drugs was terminated'.³⁰

The Presidential AIDS Advisory panel served as a means for Mbeki and his Health Minister to portray AIDS science and policy formation as deeply contested, and contestable. This, in turn, provided them with the space to

25. Epstein, *Impure Science*, pp. 229–30.

26. See Nattress, *Mortal Combat*, pp. 57–60.

27. Thomas Kuhn, *The Structure of Scientific Revolutions* (University of Chicago Press, Chicago, IL, 1962).

28. See, for example, Epstein, *Impure Science*.

29. Presidential AIDS Advisory Panel, 'A synthesis report of the deliberations by the panel of experts invited by the President of the Republic of South Africa, the Honourable Thabo Mbeki (2001)', <<http://www.info.gov.za/otherdocs/2001/aidspanelpdf.pdf>> (30 April 2007), pp. 22–3.

30. *Ibid.*, pp. 15, 79, 83.

resist the introduction of AZT and other ARVs on the grounds that 'more research was needed' into their toxicity and effectiveness. However, despite turning down two reports from the MCC concluding that the benefits of AZT outweighed the risks, Mbeki and his Health Minister were eventually forced to concede ground. They were critiqued in the mainstream media and ran into increasing opposition within their own ranks and were challenged in court and on the street by the Treatment Action Campaign (TAC).³¹ In mid-October 2000 Mbeki announced his withdrawal from public commentary on AIDS science.

Why did Mbeki adopt a position on AIDS that flew in the face of the scientific canon and cost him an enormous amount of political capital at home and abroad? A possible explanation is that he was 'converted' to AIDS denialist critiques of the scientific consensus because he found them intellectually compelling and then, for reasons relating to his personality, refused to concede ground.³² According to a biographer, Mbeki, like the other AIDS denialists, 'stoically believes that he is a modern-day Copernicus who will ultimately be vindicated, even if posthumously'.³³ Others, however, posit that Mbeki's underlying motivation may have had more to do with protecting the government's budget from the cost of buying and rolling out HAART.³⁴ The problem with this alternative explanation is that it does not explain why government disregarded its own studies showing that MTCTP was cost-effective³⁵ or why, even after ARV prices had fallen dramatically and international resources had become available, the government continued to resist the HAART roll-out. Comparative analysis indicates that given South Africa's level of development and institutional characteristics, greater HAART coverage should have been possible.³⁶ This suggests that a lack of political will to provide HAART was a key part of the South African story and not just cover for a deeper, underlying structural problem.

It has also been suggested that Mbeki's challenge to AIDS science is best understood as part of a political struggle with civil society. Thus, once he

31. For a history, see Nattrass, *Mortal Combat*.

32. See, for example, Virginia van der Vliet, 'South Africa divided against AIDS: a crisis of leadership' in K. Kauffman and D. Lindauer (eds), *AIDS and South Africa: The social expression of a pandemic* (Palgrave Macmillan, New York, 2004), pp. 48–96 and William Gumede, *Thabo Mbeki and the Battle for the Soul of the ANC* (Zebra Press, Cape Town, 2005).

33. Gumede, *Thabo Mbeki*, p. 159.

34. See, for example, Nicoli Nattrass, *The Moral Economy of AIDS in South Africa* (Cambridge University Press, Cambridge, 2004); Anthony Butler, 'South Africa's AIDS policy, 1994–2004: how can it be explained?', *African Affairs* 104, 417 (2004), pp. 591–614; Pieter Fourie, *The Political Management of HIV and AIDS in South Africa: One burden too many?* (Palgrave Macmillan, New York, 2006).

35. Martin Hensher, 'The costs and cost effectiveness of using Nevirapine or AZT for the prevention of mother to child transmission of HIV – current best estimates for South Africa' (confidential briefing, 19 April 2000).

36. Nicoli Nattrass, 'What determines cross-country access to antiretroviral treatment?', *Development Policy Review* 24, 3 (2006), pp. 321–37.

encountered resistance from scientists, AIDS activists and health professionals – all of whom could mobilize different forms of social and political capital – he was locked into a battle over the nature of state power itself.³⁷ But while this description of the situation is plausible, it does not address the prior question of why he put himself in the position of having to struggle against mainstream scientific opinion on AIDS in the first place.

Another interpretation, also focusing on political determinants, emphasizes Mbeki's revolutionary political socialization, which may have predisposed him to seeing science as corrupted by industrial interests.³⁸ Even so, none of this explains why he fought the battle so hard – even when it was costing him political support – or why his supposedly revolutionary AIDS policy was so out of step with his own support for the government's orthodox economic policies. Indeed, rather than being an anti-capitalist revolutionary, Mbeki could be construed as acting in the interests of capitalism by denying AIDS treatment to the unemployed poor,³⁹ or being too fearful of alienating international pharmaceutical companies – and, for this reason, adopting an AIDS denialist posture.⁴⁰

A different set of explanations for Mbeki's position on AIDS highlights his anti-colonial, Africanist ideology and his desire not to see Africa 'blamed' for a sexually driven epidemic.⁴¹ Several authors have pointed to the use of medical science by colonial powers to justify oppressive interventions in understanding Mbeki's suspicion towards science.⁴² But, as Phillips points out, what distinguishes AIDS from earlier epidemics is the degree to which biomedicine had permeated South African society.⁴³ The trade unions, especially, were strongly supportive of scientific approaches to medicine. As the health and safety coordinator of the National Council of Trade Unions put it, 'we in the unions pledge our support to the roll-out of scientifically proven medication where and when necessary and we oppose those who

37. Helen Schneider, 'On the fault line: the politics of AIDS policy in contemporary South Africa', *African Studies* 61, 1 (2002), pp. 145–67.

38. Theodore Sheckels, 'The rhetoric of Thabo Mbeki on HIV/Aids: strategic scapegoating?', *The Harvard Journal of Communication* 15, 2 (2004), pp. 69–82. Tom Lodge, *Politics in South Africa: From Mandela to Mbeki* (Indiana University Press, Indiana, IN, 2002).

39. Nattrass, *The Moral Economy*, p. 177.

40. See, for example, Patrick Bond, 'The decommodification strategy in South Africa', *State of Nature* (Winter 2006). <<http://www.stateofnature.org/decommodification.html>> (30 April 2007).

41. Edwin Cameron, *A Witness to AIDS* (David Philip, Cape Town, 2005); Mandisa Mbali, 'AIDS discourse and the South African state: government denialism and post-apartheid AIDS policy making', *Transformation*, 54 (2004), pp. 104–22.

42. See, for example, D. Fassin and H. Schneider, 'The politics of AIDS in South Africa: beyond the controversies', *British Medical Journal* 326 (1 March 2003), pp. 495–7; Sheckels, 'The rhetoric of Thabo Mbeki'; and Mbali, 'AIDS discourse'.

43. Howard Phillips, 'HIV/AIDS in the context of South Africa's epidemic history' in Kauffman and Lindauer, *AIDS and South Africa*, pp. 31–47.

peddle untested nostrums on a pseudo scientific basis'.⁴⁴ If Mbeki was appealing to some underlying anti-scientific stance within his support base, this was almost certainly a mistake.

We will probably never know the balance of factors which underpinned his championing of the AIDS denialists – and, to a large extent, it does not matter what they were. What is clear is that Mbeki has never repudiated his earlier defence of them and he continues to question rather than endorse the science of AIDS (refusing to have an HIV test, for example, because it would be 'confirming a particular paradigm').⁴⁵

Mbeki's withdrawal from public commentary on AIDS was, however, far from total. In September 2001 he suggested that AIDS deaths had been overestimated and that the government's social and health priorities should be revisited.⁴⁶ The following month, an MRC cause-of-death study,⁴⁷ embargoed by government, was leaked to the media: it showed that death rates had increased substantially in the population, especially for young people. The Department of Health responded by putting out a joint statement with Statistics South Africa (South Africa's official statistics body) saying that the 'MRC research is not absolutely definitive and its mortality rates are estimates rather than exact calculations because they rest on various assumptions'.⁴⁸ This was disputed by the MRC researchers (who pointed out that the mortality figures were data, not estimates) and Makgoba was put under pressure to withdraw the report, but did not.⁴⁹

Interviewed shortly before his tenure came to an end at the MRC in August 2002, Makgoba observed that the cause-of-death study was 'a ground-breaking report in a country where denials rule the day'. He went on to complain about the great pressure on the MRC for it to 'toe the party line and become the trusted scientific voice that justifies unscientific findings or pseudo-scientific ideas', saying that this approach has 'never worked successfully anywhere where excellent science is being done'.⁵⁰

Makgoba was an important champion of the independence of the MRC. After he left, there was no further conflict with government and, instead, by the end of 2005 concerns were mounting that the MRC may have been taking on board some of the Health Minister's agenda. For example, the MRC

44. Quoted in Terry Bell, 'Rath and Company is an assault on the working class', *Business Report*, 17 March 2006, Johannesburg.

45. Nattrass, *Mortal Combat*, pp. 91, 120.

46. Van der Vliet, 'South Africa divided', p. 66.

47. R. Dorrington, D. Bourne, D. Bradshaw, R. Laubscher and I. Timaeus, 'The impact of HIV/Aids on adult mortality in South Africa' (Burden of Disease Research Unit, Medical Research Council, 2001). <<http://www.mrc.ac.za/bod/>> (30 April 2007).

48. Department of Health and Statistics South Africa, 'Release of MRC report on AIDS-related mortality in adults' (press release, 16 October 2001). <<http://www.doh.gov.za/docs/pr/2001/pr1016.html>> (30 April 2007).

49. Nattrass, *Mortal Combat*, pp. 92–5.

50. Quoted in Nattrass, *Mortal Combat*, p. 95.

had research discussions with, and accepted payment (for 'workshops') from the Rath Health Foundation, a multinational enterprise which claims that its vitamins cure cancer and AIDS⁵¹ – and which, as discussed below, has been supported by the Health Minister.⁵² This illustrates that even institutionally independent bodies can be *de facto* more or less independent of government depending on who is in charge.

Resisting and undermining the HAART roll-out

AIDS denialists have various approaches to HIV science: some dispute the existence of the virus, and others merely its virulence.⁵³ But they are united in their intense opposition to ARVs – and in this regard, the actions of Mbeki's Health Minister were firmly in line with denialist discourse and opinion. When she lost her final court battle with the TAC over the introduction of MTCTP,⁵⁴ Tshabalala-Msimang complained bitterly about being forced to 'poison my people'.⁵⁵ She also resisted the introduction of HAART by pointing to its side-effects and to the complexity of administering it – but was defeated politically on this issue too. Faced with growing internal dissent and a civil disobedience campaign lead by the TAC, the Cabinet announced in October 2003 that the government would be rolling out HAART in the public health sector.⁵⁶

It has been argued that this reassertion of Cabinet authority over presidential authority was one of the positive impacts of AIDS on governance in South Africa.⁵⁷ That this 'Cabinet revolt' was a blow to the Health Minister is clear. She was reportedly despondent and distanced herself from the decision, saying 'I am not the one making the decisions; the Cabinet decides collectively.'⁵⁸ However, as she remained firmly in the driving seat, her power to shape the HAART roll-out remained substantial. Cabinet authority over policy is easily shipwrecked on the rocks of ministerial intransigence over implementation – especially when the minister concerned

51. See Nathan Geffen, 'Echoes of Lysenko: state-sponsored pseudo-science in South Africa' *Social Dynamics* 31, 2 (2005), pp. 182–210.

52. See 'MRC head dismisses Rath "link"', *Mail and Guardian*, Johannesburg, 8 June 2006.

53. Followers of the 'Perth Group' believe that HIV does not exist (because they claim erroneously that it has never been isolated, and followers of Duesberg believe that HIV exists, but that it is a harmless 'passenger virus' (and thus cannot cause AIDS).

54. See Mark Heywood, 'Preventing mother to child HIV transmission in South Africa: background, strategies and outcomes of the Treatment Action Campaign case against the Minister of Health', *South African Journal of Human Rights* 19 (2003), pp. 278–315.

55. Laurie Garrett, 'Anti-HIV drug poison, summit told', *The Age*, 9 July 2001. <<http://www.theage.com.au/articles/2002/07/08/1025667115671.html>> (30 April 2007).

56. Nattrass, *Mortal Combat*, Chapter 5.

57. Anthony Butler, 'The negative and positive impacts of HIV/AIDS on democracy in South Africa', *Journal of Contemporary African Studies* 23, 1 (2005) pp. 3–26.

58. J. Kindra, 'AIDS: ministers revolt', in *Mail and Guardian*, Johannesburg, 15 August 2003.

acts under the protection of the President. She subsequently interfered with the ability of provinces to raise money from the Global Fund, dragged her heels over the ARV procurement process and failed to address the mounting human resources crisis in the health sector.⁵⁹

One month after the Cabinet decision to roll out HAART, the government released its 'operational plan' to have 54,000 people on treatment by March 2004.⁶⁰ However, it was only from late 2004 and into 2005 that the roll-out gathered pace – a performance driven in no small measure by external donor funding.⁶¹ By March 2006, fewer than one third of the originally planned number of people were on HAART. Rather than actively supporting the roll-out, the Health Minister persistently pointed to the side-effects of HAART whilst highlighting the benefits of nutrition (notably garlic, lemon and olive oil), saying that patients must exercise 'choice' in their treatment strategies.⁶² This generated fear and confusion amongst AIDS patients over ARVs and created the space for alternative remedies to compete with HAART, even though their clinical effects were at best unproven.⁶³

Support for alternative (scientifically untested) remedies

As Ashforth has pointed out, business for healers of all descriptions has been booming as a consequence of the AIDS epidemic.⁶⁴ This, in turn, posed regulatory challenges for the MCC which had to act quickly against medical charlatans and self-styled 'traditional' healers like Sphiwe Hadebe, who made a fortune selling the fake AIDS cure 'Umbimbi'.⁶⁵ However, over time, it became harder for the MCC to act swiftly in such matters. Its institutional location within the Department of Health – where the Health Minister was becoming increasingly personally involved in supporting alternative therapists whose cures had not been through the MCC – was no doubt a key factor in its growing paralysis.

In late 2003, the Health Minister sent Tine van der Maas to the home of a popular radio personality, Fana Khaba, as he lay sick and dying of

59. Nattrass, *Mortal Combat*, Chapter 6.

60. Department of Health, 'Operational plan for comprehensive HIV and Aids care, management and treatment for South Africa: 19 November 2003'. <<http://www.hst.org.za/uploads/files/aidsplan.pdf>> (30 April 2007).

61. Nicoli Nattrass, 'South Africa's "rollout" of antiretroviral treatment: a critical assessment', *Journal of Acquired Immune Deficiency Syndrome* 43, 5 (15 December 2006) pp. 618–23.

62. Kerry Cullinan, 'Health Minister promotes nutritional alternatives to ARV rollout', *Health-e news*, 30 May 2005 and Nattrass, *Mortal Combat*, Chapter 7.

63. Nattrass, *Mortal Combat*.

64. Adam Ashforth, *Witchcraft, Violence and Democracy in South Africa* (University of Chicago Press, Chicago, IL, 2005), p. 54.

65. Jo-Anne Smetherham, 'Bogus AIDS cure exposed', *The Star*, Johannesburg, 17 July 2003.

AIDS.⁶⁶ Van der Maas is a retired Dutch nurse who sells a nostrum called 'Africa's Solution' as an AIDS remedy and recommends that people fight HIV through diet rather than through ARVs.⁶⁷ 'Africa's Solution' comes in liquid form and the label on the bottle (in the ruling African National Congress colours of gold, green and black) says that it contains *inter alia* vitamins and extract of African potato, olive leaf and grapefruit seed. The bottle also advises patients to take two crushed cloves of garlic a day and to eat one cup of Pronutro (a South African cereal). Even though Khaba's CD4 count was two cells per microlitre of blood at the time (that is, his immune system was very seriously compromised) and was not taking HAART, van der Maas claimed that she could treat him, saying 'He doesn't want ARVs. I say to him it is not necessary.'⁶⁸ By this time, however, Khaba was simply too desperately ill to be treated by nutritional interventions alone, and he died three months later.

Tshabalala-Msimang appears to have promoted van der Maas's activities a lot more substantially than merely referring her to potential patients. She also arranged for van der Maas to address a meeting of all the provincial health ministers, after which she was invited to conduct 'trials' with AIDS patients at various government hospitals and clinics.⁶⁹ The Health Minister visited van der Maas's 'research sites' in Natal more than once, and appeared on her promotional videos.⁷⁰

It is unclear what was involved in van der Maas's 'trials' as her protocols have never been near the MCC. She claims to have treated over 40,000 people, but has no records of these patients because a burglar allegedly urinated on them in 2002. She did not, however, regard this as an obstacle, because 'If you don't hear from your patients, they are usually doing well. If it's not going well, they'll phone.'⁷¹ The Health Minister allocated an adviser working in the Department of Health to assist and advise van der Maas. When asked if they would be prepared to take part in a scientific study of the diet, the adviser said: 'We don't want to be tied up with scientists in the laboratory. But we would be prepared for the diet to be given to patients in an academic hospital where the benefits can be monitored by an independent neutral person.'⁷²

This speaks volumes about the attitude of Department of Health officials towards scientists and scientific regulation – that scientists are

66. Liz McGregor, *Khabzela: The life and times of a South African* (Jacana Media, Johannesburg, 2005) p. 18.

67. *Ibid.*, pp. 17–23.

68. Quoted in *ibid.*, p. 17.

69. Cullinan, 'Health Minister'.

70. Geffen, 'Echoes of Lysenko'.

71. E. Brits, 'Burglars "peed" on AIDS Records', *Die Burger*, 30 May 2005, Cape Town.

72. Cullinan, 'Health Minister'.

not neutral, and their testing procedures are inappropriate for non-orthodox remedies. The Department of Health had attempted to free traditional/complementary/alternative remedies from the normal channels of scientific regulation with the South African Medicines and Medical Devices Regulatory Authority Act of 1998 – but this proved unworkable and the Act was repealed in 2002. The Medicines and Related Substances Control Act of 1965, as amended in 1997 and 2002, continues to endorse the role of the MCC as scientific regulator of *all* medicines and related substances.⁷³ The Minister's support for the by-passing of scientific testing of alternative AIDS remedies is thus in contravention of both the letter and spirit of the existing legislation.

More worrying even than her involvement with van der Maas is the Health Minister's support for the activities of Matthias Rath, a wealthy German entrepreneur. His multinational 'Rath Health Foundation' (which has employed several South African and foreign AIDS denialists), sells multivitamins as alternative treatment for cancer and AIDS. As part of its marketing strategy, the Rath Foundation engages in scare-mongering over HAART, saying that it is 'severely toxic' and undermines the immune system. Such misleading and aggressive advertising is a hallmark of Rath Health Foundation advertising world wide, and he has had a number of warnings and rulings against him by regulatory authorities in several countries.⁷⁴

The Rath Health Foundation has also conducted an unofficial 'trial' in Khayelitsha (Cape Town) outside of South Africa's regulatory structures and with the tacit (if not active) support of the Health Minister. This trial was conducted under the leadership of (the now deceased) Sam Mhlongo (apparently a close friend of Mbeki's⁷⁵ and member of his Mbeki's Presidential AIDS Panel). This trial, involving the administering of extremely high doses of vitamins to people with HIV, failed to get approval from Mhlongo's home institution (the University of Limpopo, which identified 34 problems with the protocol) and was never presented to the MCC.⁷⁶ The results were subsequently published in newspaper advertisements posted in May 2005, claiming that his micronutrients reversed the course of AIDS. The Health Minister then invited the Rath researchers to present their findings to the provincial ministers of health.⁷⁷

73. See www.mccza.org.za. (30 April 2007).

74. See Geffen 'Echoes of Lysenko'.

75. Kerry Cullinan, 'The curious tale of the Minister and the vitamin seller', *Health-e news*, 25 April 2005. Available on: <http://www.health-e.org.za/news/article.php?uid=20031215> (29 September 2007).

76. Kerry Cullinan and Anso Thom, 'Official nod for voodoo trials?' *Mail and Guardian* online, 19 January 2006. Available on: http://www.mg.co.za/articlePage.aspx?articleid=255040&area=insight/insight__comment_and_analysis/ (29 September 2007).

77. *Ibid.*

Responding to questions about Rath's 'trial', the Health Minister told reporters:

We cannot transplant models designed for scientific validation of allopathic medicine and apply it to other remedies. There is need for creativity to come up with relevant and pragmatic models to prove safety, quality and efficiency of complementary, alternative and African traditional medicines.⁷⁸

She claims that rather than undermining the government's position on AIDS, the Rath Health Foundation is in fact supporting it by providing vitamins and micronutrients. She told reporters that she would only distance herself from Rath 'if it can be demonstrated that the vitamin supplements that he is prescribing are poisonous for people infected with HIV'.⁷⁹

A de-clawed MCC

Whereas in 2003, the MCC was quick to act against complaints about Hadebe's 'umbimbi' AIDS scam, the opposite has been the case with regard to the Rath Health Foundation. Despite a series of complaints by the TAC and others, no official action was taken against him. Finally, the TAC, together with the South African Medical Association, filed court papers in November 2005 against the Minister of Health, Matthias Rath and several other AIDS denialists. At the time of writing (August 2007), this case had yet to be heard.

It is unclear, precisely, what has been happening in the MCC as there is no annual reporting, minutes are secret and decision-making processes are opaque. It appears that the MCC started an investigation, but that this stalled in late 2005 when the original investigator was removed from the case.⁸⁰ The following year a shipment of Rath's products was seized by Port Health Officials because it contained scheduled substances such as N-acetylcysteine which needed to be registered with the MCC. However, to the concern of law enforcement personnel working in the Department of Health, the Director General of Health ordered its release. One of them told reporters:

This is the second time it's happened. The consignment gets withheld because we have problems with the content of the tablets because it doesn't comply with the Medicines Act and then we're told to ignore our concerns and ignore the law we're supposed to enforce.⁸¹

78. Quoted in *ibid.*

79. *Ibid.*

80. *Ibid.*

81. Quoted in P. Joubert, 'Health Department DG frees seized AIDS drugs', *Mail and Guardian*, Johannesburg, 7 July 2006.

The Health Minister appears to have succeeded in de-clawing the MCC, which now seems incapable of responding to complaints against the illegal trials undertaken by van der Maas and Rath. Whereas during the Virodene saga, Mbeki and the Health Minister respected the authority of the MCC to rule that the Vissers were not allowed to conduct trials, in the case of Rath and van der Maas, the Health Minister has simply sidestepped or overridden the MCC and related law enforcement machinery. Under her stewardship, the burden of proof shifted from the purveyor of the remedy to those who raise doubts about the remedy. That all this undermined the scientific governance of medicine goes without saying.

Although the legislation clearly placed all alleged remedies and cures under 'medicines', the Minister of Health appears to have acted according to a different set of rules (unrecognized in law) for 'traditional' or 'alternative' remedies – even to the point of supporting their distribution through the public health system without their ever having been tested scientifically. A recent example of this is the distribution through AIDS clinics in KwaZulu-Natal of a herbal product called 'Ubhejane' which retails at about US\$50 for a plastic milk-bottle filled with the dark-looking product.⁸² Doctors subsequently implicated 'Ubhejane' as responsible for liver failure and for the development of drug resistance in patients who went off HAART to go onto the herbal concoction.⁸³ A spokesperson for Tshabalala-Msimang expressed no concern, saying that they had heard 'that story' but had also heard the 'opposite of that' – supposed success stories relating to 'Ubhejane'.⁸⁴

One of the main promoters of 'Ubhejane', Herbert Vilakazi – a retired sociologist and government health adviser – claimed that research at the University of KwaZulu-Natal had demonstrated its effectiveness,⁸⁵ but the university subsequently released a statement denying this.⁸⁶ When the opposition Democratic Alliance complained about the manufacture of 'fake cures' such as 'Ubhejane' by what it called 'backyard chemists', the Department of Health retorted that the Democratic Alliance was simply perpetuating racist stereotypes.⁸⁷ The TAC, opting to bypass the regulatory machinery of the Department of Health altogether, laid a charge in

82. 'Health ministry backs AIDS muti', News24.com, 13 February 2006. <http://www.news24.com/News24/South_Africa/Aids_Focus/0,2-7-659_1880449,00.html> (30 April 2007).

83. S. Calvert, 'HIV patients get sicker on herbal cures', *Baltimore Sun*, 21 August 2006.

84. *Ibid.*

85. Herbert Vilakazi, 'A new model of health-care delivery for KwaZulu Natal' (unpublished paper, 29 July 2005).

86. 'University pours cold water on AIDS "Cure"', SAPA, 18 March 2006. Available on: <http://www.aegis.org/news/sapa/2006/SA060308.html> (30 April 2007).

87. Department of Health, 'Statement: DA undermines indigenous knowledge' (press release, 13 February 2006). <<http://www.doh.gov.za/docs/pr/2006/pr0213.html>> (30 April 2007).

October 2006 with the police against the purveyors of 'Ubhejane' (as of August 2007, however, nothing had come of this complaint).

The Health Ministry, supposedly, has been in the process of formulating new legislation to regulate complementary/alternative/traditional remedies. According to a Departmental press release 'in finalizing the regulation of these medicines, we are avoiding the pitfall of putting such products in the same regulatory environment as pharmaceutical drugs whose testing is very different'.⁸⁸ How this affects the various 'AIDS remedies' remains to be seen. Scientific research has shown that HAART reduces AIDS-related mortality,⁸⁹ and that herbal remedies can interact adversely with HAART.⁹⁰ Unless safety and efficacy of alternative therapies for AIDS patients can be established clearly – and it is unclear how this can be done outside of scientific regulation – the cost will continue to be paid in human lives lost.

Achievements and missed opportunities during the Mbeki presidency: costs and benefits paid in human lives

Looking back over the Mbeki Presidency, what have been the AIDS policy achievements and missed opportunities measured in terms of human life? The ASSA2003 demographic model enables us to explore this question by modelling different policy scenarios.⁹¹ Figure 2 plots the number of new HIV infections under four different scenarios. The 'baseline' projection is the ASSA2003 model's best representation of reality (that is, of what actually happened). This projection (the starred line) takes into account the fact that

88. Quoted in 'Small clinic at centre of debate over traditional medicine', *IRIN News*, 1 May 2006. http://www.irinnews.info/S_report.asp?ReportID=53090&SelectRegion=Southern Africa (30 April 2007).

89. E.g. G. Smit, R. Geskus, S. Walker, C. Sabin, R. Couthino, K. Porter, M. Prins and the CASCADE Collaboration. 'Effective therapy has altered the spectrum of cause-specific mortality following HIV seroconversion', *AIDS* 20, 50 (2006), pp. 741–9.

90. E. Mills, C. Cooper, D. Seely and I. Kanfer, 'African herbal medicines in the treatment of HIV: Hpxois and Sutherlandia: an overview of evidence and pharmacology', *Nutrition Journal* 4, 19 (2003) pp. 2–6.

91. The data and assumptions behind the model are available in the spreadsheet version of the model which can be downloaded from www.assa.org.za. Data include antenatal HIV prevalence surveys, demographic data from censuses and behavioural data from demographic and health surveys and related social science research. Key assumptions include a 50 percent uptake of formula feeding for mothers on the MTCTP programme; a 47 percent reduction in perinatal transmission as a result of HAART; a 1.76 log reduction in viral load while on HAART (and an increase of 3 in transmissibility per log increase in viral load); and a 75 percent reduction of AIDS morbidity while on HAART. For further discussion of the assumptions (and biomedical and social evidence informing them) see R. Dorrington, D. Bradshaw, L. Johnson and T. Daniel, 'The demographic impact of HIV/AIDS in South Africa: national and provincial indicators for 2006' (Joint publication of the Centre for Actuarial Research, the Burden of Disease Research Unit and the Actuarial Society of South Africa (ASSA), 2006). Available on <www.assa.org.za>. See also N. Nattrass, 'Modelling the relationship between antiretroviral treatment and HIV prevention: limitations of the Spectrum AIDS Impact Model in a changing policy environment', *African Journal of AIDS Research* 6, 2 (2007), pp. 129–37.

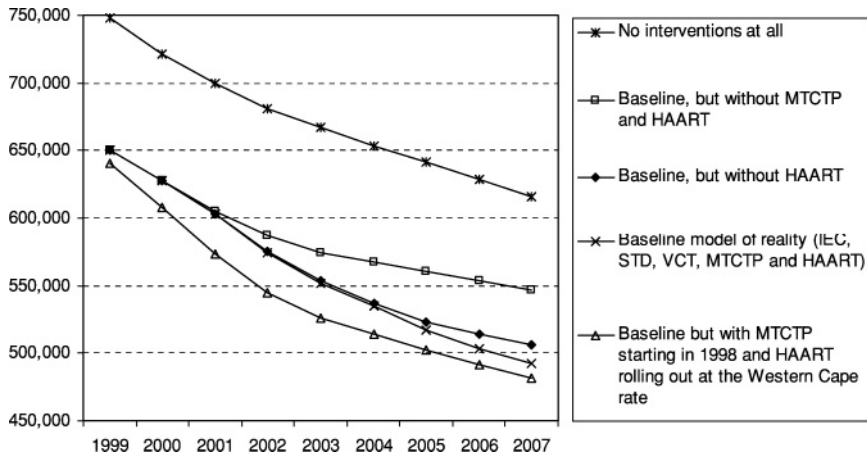


Figure 2. New HIV infections: different scenarios (ASSA2003 demographic model).

the government operated an AIDS education and information campaign (EIC) and a sexually transmitted disease management intervention (STD), both starting in 1994 and reaching 95 percent coverage by 2003. It also takes into account government provision of voluntary counselling and testing services (VCT) from 1995, reaching 50 percent coverage by 2004. MTCTP services were assumed to start in 2001, reaching 90 percent in 2005, and the HAART roll-out was assumed to start in 2000, reaching 50 percent in 2008.

Four other projections using the ASSA model are provided. The 'no interventions' scenario plots the course that the epidemic would have taken if the government had done nothing at all – not even the most basic information and education awareness. This entails running the base line model provided by ASSA, but this time setting the interventions to zero. The 'baseline without HAART' scenario models what would have happened if no HAART roll-out had taken place (that is, the HAART roll-out variable was set to zero), and the 'baseline without HAART or MTCTP' scenario models what would have happened if neither HAART nor MTCTP had been rolled out. As can be seen from Figure 2, conducting basic AIDS prevention interventions (that is, those not entailing the use of ARVs) did help prevent new infections. MTCTP helped reduce the number of new HIV infections, and adding a HAART programme reduced them yet further. In terms of actual numbers, this modelling exercise suggests that over the period 1999–2007 the basic prevention interventions averted 69,000 new infections, the MTCTP roll-out prevented a further 182,000 new HIV

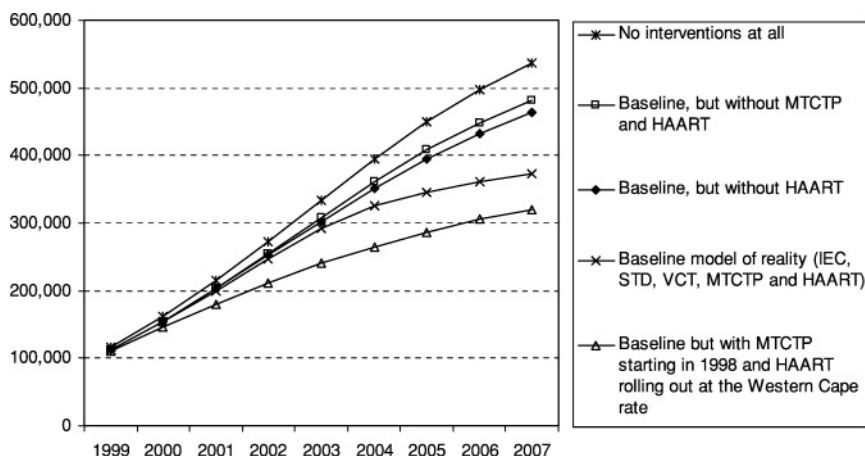


Figure 3. AIDS deaths: different scenarios (ASSA2003 demographic model).

infections, and the HAART roll-out helped prevent a further 36,000 new HIV infections. In other words, interventions using ARVs for prevention and treatment probably helped prevent about a quarter of a million more people from becoming infected with HIV than would have been the case if no interventions had been implemented.

This achievement, however, could have been greater if political will at the national level had been more akin to that in the Western Province – the only province which, for most of the post-apartheid period had been controlled by the opposition, and had, in defiance of national policy, started a pilot HAART project with *médecins sans frontières* in 2000. The fifth projection in Figure 2 shows the impact of estimated new HIV infections if MTCTP had been rolled out since 1998 (rather than 2001), and if HAART had been rolled out nationally at the same rate as it was rolled out in the Western Cape (rising from 10 percent in 2000 to 65 percent by 2007). The modelling results indicate that if this scenario had taken place, then an additional 171,000 new HIV infections could have been averted (over and above the ‘baseline’ model of reality).

Figure 3 repeats the above exercise, but this time with AIDS deaths. The basic prevention intervention prevented 56,000 deaths over the period 1999–2007, the MTCTP programme prevented a further 66,000 AIDS deaths, and the HAART roll-out contributed substantially to reducing AIDS deaths by preventing an additional 257,000 AIDS deaths over the period. However, if MTCTP and HAART had been rolled out nationally at the same rate as in the Western Cape, then an additional 343,000 AIDS deaths

would have been averted. It is these deaths, and the HIV infections that could have been averted, that amount to the human cost of resistance to ARVs in South Africa. It is, as Peter Mandelson once put it graphically, a form of ‘genocide by sloth’.⁹²

Uncertain future

Between November 2006, when the Deputy Health Minister condemned ‘AIDS denialism, at the highest levels’, and August 2007, when she was fired by President Mbeki, South Africa’s AIDS policy went through a ‘Prague Spring’. Relations with civil society were repaired, SANAC was restructured and the new National Strategic Plan injected new hope and energy into those working on the frontline against AIDS. However, as of August 2007, the Department of Health lacks effective leadership on AIDS, and it is unclear how effective SANAC will be able to be in this new context.

As yet, no moves have been made to regulate the burgeoning trade in untested medicines. Of particular concern is Mbeki’s ‘Presidential Project on African Traditional Medicine’, tasked with verifying ‘herbal mixtures’ prepared by African traditional healers which ‘seem to have dramatic curative effects’ and establishing an ‘African Pharmaceutical Industry second to none in the world’.⁹³ Given that the leader of the task team, Vilakazi, has been implicated in the ‘Ubhejane’ scandal, the scientific credentials of this team are highly questionable (as noted by the then Deputy Health Minister Madlala-Routledge in an interview which no doubt earned her the displeasure of Mbeki).⁹⁴

The role of traditional and alternative medicine is now an important front in the ongoing fight for effective AIDS treatment – and one which has seen an unholy alliance between the Rath Health Foundation and some traditional healers. The Traditional Healers Organization has sided with the Rath Health Foundation in its legal battles with the TAC and there have been several marches by traditional healers in support of Tshabalala-Msimang.

The key reason for this mobilization of traditional healers is the institutional uncertainty that remains regarding the regulation of alternative and traditional medicine. The Health Minister has noted on several occasions that the Ministry was drawing up guidelines for regulating such products, but none have yet come to any concrete fruition. All products claiming to have medicinal properties thus continue to fall under the ambit of the MCC,

92. Peter Mandelson, ‘Genocide by Sloth’, *New Statesman*, 18 February 2002.

93. Herbert Vilakazi, ‘Conception and terms of reference of “The Presidential Project on African Traditional Medicine”’ (unpublished but widely circulated paper, 2006), p. 6 (copy on file with the author).

94. Quoted in S. Bevan, ‘Deputy Minister takes on Manto’, *Sunday Tribune*, 10 December 2006.

but in a context in which Tshabalala-Msimang and her Director General have persistently failed to act on complaints that Rath and the purveyors of 'Ubhejene' were breaking the law. As Madlala-Routledge recognizes, uncertainty over the role of traditional medicine continues to sow confusion and undermine the scientific approach to AIDS treatment.

Bringing this situation under control will require more than ideological battle – it will require real institutional reform within the Department of Health. It requires a new Health Minister and strong support from Cabinet to repair Mbeki's most pernicious legacy: the erosion of the scientific regulation of medicine in South Africa. It also requires a new Health Minister who has the competence to manage the Department of Health (recent allegations about Tshabalala's alcoholism and theft conviction in Botswana have raised further doubts about her competence to run a national department).⁹⁵ There is an urgent need for new leadership to mobilize South Africa's scarce resources effectively and efficiently in the long hard battle against AIDS that still lies ahead.

95. See J. Maker, M. Power, C. Molele and B. Naidu, 'Manto: a drunk and a thief', *Sunday Times*, 19 August 2007.