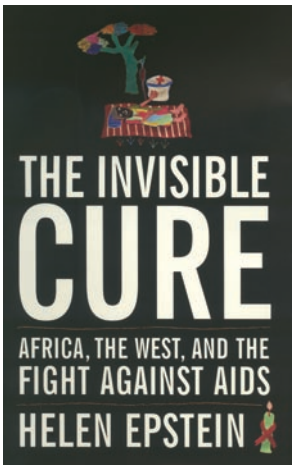

The invisible cure

Africa, the West, and the fight against AIDS

Helen Epstein
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In many ways, AIDS in Africa is no different from AIDS in the United States and Europe. It's caused by the same virus (HIV), which kills people in the same way, although the opportunistic infections that evade HIV-compromised immune systems are caused by locally circulating pathogens, with tuberculosis to the fore in Africa. In *The invisible cure: Africa, the West, and the fight against AIDS*, Helen Epstein — a visiting research scholar at Princeton University — discusses important distinctions about AIDS in Africa, focusing on Uganda and South Africa, where she has covered the epidemic at close hand for 15 years. Her scientific training and time spent as a young researcher in a Ugandan laboratory help ensure she covers AIDS science accurately, although this is a peripheral theme. Her central focus is on a critical question: Why has HIV spread so much more efficiently among heterosexuals in Africa than anywhere else in the world?

There is no doubt HIV can be sexually transmitted from a man to a woman, or vice versa. As Epstein notes, Africans knew this before Western science did. "We suspected the disease [AIDS] came from sex even before the missionaries and doctors came to tell us," in the words of a Ugandan farmer recalling the impact of AIDS on her community in the early 1980s. Yet in Africa, heterosexual HIV spread is much more frequent than that in the United States and Europe, such that around 50% of all HIV-infected Africans are women. Arguments that locally circulating viruses are more heterosexually transmissible don't stand up to inspection; human genetic or epigenetic factors seem more likely to be responsible. For example, the greater prevalence of other sexually transmitted diseases in Africa, particularly herpes simplex virus–2, may be relevant. Epstein, however, strongly favors a cultural explanation, and her book is structured around, and to support, these arguments.

Are Africans simply more promiscuous than Australians or Americans? Surveys about sexual behavior are notoriously prone to interviewees not telling the truth, the whole truth, and nothing but the truth. In general, men exaggerate their number of partners, women the opposite. However, this is true whether the survey is carried out in Soweto, Sydney, or San Francisco. And when the sand settles on the statistics, surveys suggest that Africans probably have no more sex partners in their lifetimes, on average, than anyone else, apparently arguing against a behavioral explanation for the high incidence of heterosexual AIDS in Africa.

Epstein's point, however, is that African social practices differ in one critical way from the norms elsewhere. In the Western world, heterosexuals tend to engage in serial monogamy, keeping a single sex partner for a significant period, then moving on to another — a second marriage, a new boyfriend. How many American men who secretly stray from the marriage bed can get away with seeing more than one mistress at a time? In Africa, Epstein argues, the cultural norm is simply different. Men and women engage in multiple, but not necessarily many, sexual relationships, not sequentially but simultaneously, and for prolonged periods. Polygamous marriages are also more common. The social networks thereby established facilitate the rapid spread of HIV — "if one member [of the network] contracts HIV, then everyone . . . is placed at very high risk." The relative risk of acquiring HIV infection as a result of concurrent networking compared with serial monogamy, given the same total number of sex partners, is estimated as 10-fold. In her analysis, Epstein draws heavily on both the mathematical models of sociologist and statistician Martina Morris and a largely overlooked survey of sexual practices conducted in Uganda by sociologist Maxine Ankrah, describing the rediscovery of the latter at some length. An exacerbating factor is that individuals are most infectious soon after they have themselves become infected, at a time when they are unlikely to be aware of their HIV status. Pilcher et al. state that "men with average semen HIV-1 loads and without STDs would be expected to infect 7%–24% of susceptible female sex partners during the first 2 months of infection," the transmission risk being even higher if either partner has an STD (1). Together, concurrent sexual networks and the high viremia associated with primary infection may render HIV spread quite efficient.

The next principal theme of the book now arises. There was a much-heralded reduction in HIV infections in Uganda in the late 1980s and early 1990s. But what caused it? (That is, assuming it was a real drop: some commentators question whether inaccurate statistics and/or the death of the most at-risk population was responsible.) Some organizations, notably the United Nations AIDS (UNAIDS) program, have credited the decline in HIV incidence to the increase in condom usage that they championed. Epstein, however, favors President Museveni's promotion

of "zero grazing," a sexual behavior model roughly similar to the serial monogamy of the West. The truth matters here, because knowing how HIV is spread helps define how best to stop it via behavioral modifications. Unfortunately, wars between competing ideologies on how humans should behave sexually have become a serious impediment to the development of effective prevention strategies.

There is no question that more widespread condom usage would slow HIV spread, but for two problems — the reluctance of men to use them, and the hostile attitude of religious zealots. As Epstein details, for a Ugandan pastor to shout at students, "I burn these condoms in the name of Jesus!," offering Bibles instead, is shockingly immoral. A more realistic goal is to reduce each individual's number of sex partners, but zero grazing also does not satisfy the religious conservatives who now dominate the American and Ugandan governments, as it still allows for sex outside the marital bed ("promiscuity"). Christian faith–based groups have received over $1 billion from the U.S. government's President's Emergency Plan for AIDS Relief (PEPFAR) program to promote sexual abstinence, a strategy that simply doesn't work. Epstein points out that it is sometimes hard to tell whether these organizations' aim is "preventing AIDS or saving souls." Mixed agendas cost lives. Yet zero grazing, Epstein alleges, is also unpopular with the political left, particularly the UNAIDS program, which she accuses of disapproving of any intervention interfering with human sexuality (staff members from WHO and UNAIDS have already strongly objected to that suggestion; ref. 2).

Other themes arise in the book, intertwined with its central thread. Epstein is clearly no fan of PEPFAR, which spends enormous sums on HIV-1 prevention, noting that "at least 60% of U.S. foreign-aid funding never leaves the United States." And the price of PEPFAR money, as well as ideological constraints, is bureaucracy on a scale that might be tolerable in Kansas but slows down real-world programs in Kampala. Epstein wonders whether PEPFAR simply "makes Americans feel good about themselves." Yet, in fairness, PEPFAR has greatly facilitated the provision of antiretroviral therapies within Africa, an important achievement Epstein largely ignores. She does, however, also rightly castigate various local organizations and institutions for corruptly "looting" AIDS funds, a sad story. And she tells of another sorry saga — South Africa's President Mbeki's denial of the seriousness of his country's epidemic (or even of the existence of HIV) for a critical period (3). This topic merits a book unto itself; fortunately, one has just been published, Nicoli Nattrass's *Mortal combat* (4), which should be read in conjunction with *The invisible cure*. Nattrass picks up on a theme that Epstein barely touches: the African-led struggle for improved access to antiretrovirals for HIV prevention and treatment. Epstein could also have given more attention to male circumcision as a prevention tool, with all its social and cultural implications within Africa.

Throughout her book, Epstein offers opinions, often trenchantly, usually controversially. Whether she is right on her central issues depends on how various epidemiological surveys and statistics are interpreted, but she never ducks from raising important themes that do merit further, ideologically unbiased analysis. Many will disagree with her — some already have (2), but her book should help stimulate thinking on some of the most critical issues that face Africa today. Yes, AIDS in Africa is different, because Africa itself is different, notes Epstein; its cultures have unique roots and its present-day societal norms are correspondingly divergent. Cults of chastity arose around virgin goddess figures in Europe and Asia, but the corresponding African religious cults instead celebrated fertility. Fertility implies sexuality, so the practical wisdom of Western organizations attempting to impose their own views and values on African societies is questionable at best. Yet some interventions are clearly needed, lest President Mbeki's "African Renaissance" mimic the European Renaissance of the fifteenth century in being seriously affected by a deadly plague: AIDS is today's Black Death.

But just how should the African AIDS epidemic be halted? It is here, perhaps, that Epstein is least convincing. The "invisible cure" of the title is essentially a call for African societies to establish local-level movements that could provide greater support for the sick and dying and push for changes in values and behavior. Such steps are surely necessary, but are they sufficient? Many might think not. There is more that the rest of the world can, and must, offer Africa than advice to "start talking" and to develop grass-roots networks. For this to happen, however, the affluent West must get its act together. It's wrong for the frontline troops in the African AIDS war to scrabble for resources they can actually use, while the generals squabble over ideology. Our political and scientific leadership must do better.

1. Pilcher, C.D., et al. 2004. Quest Study and the Duke-UNC-Emory Acute HIV Consortium. Brief but efficient: acute HIV infection and the sexual transmission of HIV. *J. Infect. Dis.* **189**:1785–1792.
2. De Lay, P.R., and De Cock, K.M. 2007. UNAIDS rejects claims of exaggeration and bias. *Nature.* **448**:251.
3. The scientific evidence for HIV/AIDS. http://www.aidstruth.org.
4. Nattrass, N. 2007. *Mortal combat: AIDS denialism and the struggle for antiretrovirals in South Africa*. University of KwaZulu-Natal Press. Pietermaritzburg, South Africa. 272 pp.