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Aids was supposed to destroy Uganda. So why is it flourishing again?

Billions will be spent on powerful anti-Aids drugs for the third world – but Uganda reversed its Aids epidemic without them

Aids sunset gives way to new dawn in Uganda

by Neville Hodgkinson

"Can Africa be saved from Aids?" asked Newsweek magazine in two reports in 1984 and 1986, reporting that "nowhere is the disease more rampant than in the Rakai region of south-west Uganda, where 30% of the people are estimated to be seropositive [HIV positive]." Newsweek was not alone. Over the next 15 years, prestigious newspapers and magazines across the globe repeatedly published similar reports; the consensus was that a devastating proportion of the Ugandan population was doomed by Aids to premature death, with all the consequences on families and the society as a whole. Their predictions announced the practically inevitable collapse of the country in which the worldwide epidemic supposedly originated.

The data seemed authoritative. By mid-1991, the World Health Organisation (WHO) was estimating that 1.5m Ugandans, nearly a tenth of the general population and a fifth of those sexually active, had the HIV infection. WHO predicted that in sub-Saharan Africa as a whole, child deaths in the 1990s could increase by as much as 30% because of Aids. In November 1996, the agency reported that more than three million children were already feeling the direct impact of Aids in Uganda alone.

Today the public prints and airwaves are still full about the African "Aids crisis". But you will read little about Aids in Uganda. The reason: all prophecies have proved false, as the results of a 10-year census published last year has shown. Uganda's population grew at an average annual rate of 3.4% between 1991 and 2002, one of the highest growth rates in the world, due to persistently high fertility levels (about seven children per woman) and a decline in infant and childhood mortality rates. Economic development has also shown constant growth over the same period reflecting the energy and determination of Ugandans to improve their living conditions**.** Fewer people are testing HIV-positive and nationally, the figure is now put at around 5%.

The good news from Africa comes at a time when WHO is spearheading a massive campaign to combat Aids by raising funds to buy anti-HIV drugs for poor people in developing countries. It says 99% of HIV-positive people in sub-Saharan Africa who

need treatment today because their illness has advanced to Aids do not have access to the drugs. Within two years, WHO wants the medicines to be reaching half an estimated 6m people worldwide whom it believes to be in urgent need. The cost, along with prevention and other activities, is estimated at $10.5bn in 2005, rising to $15bn a year by 2007.

Pledges from the United States, European Commission and European national governments, if fulfilled, will take Aids funding for developing countries from $4.7bn this year to $5.9bn by 2005. That still leaves a gap of nearly $5bn. According to WHO and its partners in the Joint United Nations Programme on HIV/Aids (UNAids), the money is needed to tackle an Aids "catastrophe" in which 42m people are estimated to have become infected with HIV. Africa alone is said to have 30m infected, threatening economic collapse and national security in the worst-affected countries.

These enormous, grim statistics, regularly repeated, have created a pall of uncertainty over much of sub-Saharan Africa, especially in the eyes of many Western investors, which further blights Africa's economic development. The encouraging news from Uganda might have been taken to suggest that a huge increase in funds devoted to the anti-aids drugs would be money well spent – except that Uganda has shaken off the worst of its apparent HIV/Aids epidemic without resort to such drugs. Moreover, there have been other developments that cast doubt on the validity of putting pharmaceuticals centre stage in the fight against Aids – and even call into question WHO's entire strategy in targeting HIV as the best way to fight AIDS.

Responding to a news report in the August edition of the British Medical Journal (BMJ) headed "Free retroviral drugs could save up to 1.7m South Africans", Dr Christian Fiala, a specialist in obstetrics and gynaecology from Austria with a degree in tropical medicine, has urged caution before investing in such approaches. Since the drugs are costly and potentially dangerous, it is essential to substantiate such claims, he says in two letters published in BMJ on-line, the journal's website.

Fiala has spent years researching data on HIV/Aids and has worked in Africa and Thailand as well as Europe. He is the author of a 1999 book on Aids, *Lieben Wir Gefahrlich?* (Do We Love Dangerously? – A Doctor in Search of the Facts and Background to Aids). He has looked particularly closely at Aids in Uganda, once considered the epicentre of African Aids but now, far from being decimated, enjoying a population and development boom that is confounding past grim predictions.

Fiala asks: "How can this contradiction be explained: that a land condemned to death has not only avoided the predicted catastrophe but that population growth has even dramatically accelerated in this period and economic development has been positive? And more specifically: how has it been possible to reduce HIV-prevalence without antiretroviral therapy, the so-called Aids drugs?"

The WHO, which says most HIV infection in Africa is attributable to heterosexual intercourse, argues that the reduction must have come about because of a change in sexual behaviour, achieved through high-level Aids awareness campaigns in Uganda. Fiala says there is no reliable evidence for this belief.

On the contrary, the latest household survey (2001) shows that the following indicators of sexual behaviour have been stable, some for 30 years: fertility (seven children per woman); average age for women at time of first sexual intercourse (16.7 years); age at marriage (18 years); and first childbirth (18.5 years). The only indicator that has slightly changed is the proportion of married women using contraception, up over the last five years from 15 to 23%. But only 2% regularly use a condom (though 35% report unmet needs for family planning).

"The explanation is to be sought elsewhere," Fiala says. "The horror scenarios were based on the large number of people testing HIV-positive in Uganda in antenatal surveys and numerous other studies. Most of these HIV-positives, according to the underlying assumption, would contract Aids in eight to 10 years and consequently die relatively fast. Surprisingly, mortality did not increase over the last decade; obviously, therefore, this assumption has been wrong."

The reason, he says, is the unreliability of HIV tests, as demonstrated by many studies. Particularly in Africa, people have high levels of antibodies in their blood triggered by infectious and parasitic diseases; or by exposure to contaminated blood or dirty injections. Some of these antibodies can cause false positive results with the HIV test. People test positive but are not infected with HIV; so they will not necessarily die after the allotted time.

Fiala demonstrates that not only are the figures on HIV infections unreliable and misleading, so are the official Aids statistics. Diagnosis of Aids in Africa is based on a special definition for developing countries which WHO decided in 1985. According to this, Aids is diagnosed on the basis of what are known as "non-specific clinical symptoms". "Even today in Uganda and other African countries," says Fiala, "people with, for example, continuous diarrhoea, weight loss and itching are declared to be suffering from Aids. Furthermore, the typical symptoms for tuberculosis – fever, weight loss and coughing – are also officially considered to be Aids, even without an HIV test."

Perhaps this helps to explain why, despite more than one million Ugandans said to be living today with HIV/Aids out of a total population of 23m, the "My Uganda" independent website comments that "the massive sugar and textile industries of the 1960s are reviving, along with the large tea estates long neglected…many expelled Asians have returned to reclaim their properties and are reinvesting in a growing economy…tourism is attracting investment and interest…Kampala is steadily being rebuilt…the city infrastructure has been restored and new office towers, hotels, stadiums and shopping malls are appearing almost monthly…the overriding impression of Uganda is of its happy people."

In estimating total Aids cases, until recently WHO's Geneva headquarters added the registered Aids sufferers to a high number of unreported cases which WHO *presumed* to have occurred. Thus in November 1997, WHO announced that since its previous report in July 1996, there had been a further 4.5m Aids cases in Africa. In this period, however, only 120,000 Aids sufferers were actually registered. "In other words, 97% of the supposed new Aids cases occurred only at the WHO HQ in Geneva," Fiala comments.

WHO now prepares the statistics differently but still in a way that keeps the numbers artificially high: healthy people with a positive HIV test are added to diagnosed Aids cases to produce the category "people living with HIV/Aids". Again, this procedure is highly unusual in medicine, Fiala says. For example, nobody has suggested putting people actually suffering from tuberculosis alongside those who are healthy but who have antibodies to the bacteria.

In fact, in creating such a category, WHO is reflecting the predominant scientific view that to be HIV positive inevitably means a decline into illness and death – a view now profoundly challenged by the Ugandan experience. The view arose because of a close correlation between testing HIV-positive and risk of ill-health. In reaching such a conclusion, however, Aids experts appear to have fallen into an elementary statistical trap: confusing correlation with causation.

Fiala and others say the real reason for the high levels of HIV-positivity found in Uganda in the early years of Aids was that between 1966 and 1986, under successive tyrannical dictators, the country was wrecked by economic disaster, mass executions, civil war and war with neighbouring Tanzania. Gross malnutrition and poverty opened the door to devastating deterioration in health and loss of life through an upsurge in long-standing African diseases, including TB. By the same reasoning, the decline in HIV-positivity in Uganda is a result of the success of the current government in restoring political and social stability and economic development.

Powerful scientific support for Fiala's view comes from researchers in Perth, Western Australia, who have demonstrated that the proteins claimed by HIV experts to belong to HIV, and which are used in the HIV test, are actually cell proteins present in all of us. People in Aids risk groups, including gay men, haemophiliacs and drug users, are liable to have high levels of antibodies to these "self" proteins: that is, auto-antibodies, arising from the immune system challenges in their lives. Malnourished people suffering from certain chronic infections, notably tuberculosis, have also been shown to develop high levels of antibodies that react with the proteins in the "HIV" test, not because of "HIV" but because of TB. Since millions of people in impoverished living conditions are exposed to TB, that alone could account for much of the so-called "HIV pandemic".

Reports in the medical literature document around 70 different conditions that can give false positive results in this way to an HIV test. The list includes infection with hepatitis B virus, a common contaminant of blood, and even pregnancy or a course of flu jabs. So, when anyone tests positive, it does not mean they are HIV-infected. Manufacturers of the HIV test kits admit this. For example, Abbott Laboratories, one of the main producers, state in their packet inserts: "At present there is no recognised standard for establishing the presence or absence of HIV-1 antibody in human blood."

The Perth group, and other scientists trying to draw attention to their findings, say much evidence now points to HIV-positivity, and similar measures of immune system activation such as so-called viral load, as being a consequence rather than cause of a compromised immune system. They argue that the mistake came about because from the start, when HIV was first postulated as the cause of Aids nearly 20 years ago, it never proved possible to find the virus in any workable quantity in patients.

Normally, in determining whether a virus is the particular cause of an illness, microbiologists first purify it from a patient with the disease so that they know what it looks like under the electron microscope and precisely what they are working with. They then grow the purified virus in the laboratory, show it is present in all cases of the disease, that there is a lot of it and that it is active in the body in a way that accounts for the disease. They also try to reproduce the original disease by introducing the virus into a susceptible animal.

In the case of HIV none of these requirements has been met, according to Eleni Papadopulos-Eleopulos, a medical physicist and cell biology expert at the Royal Perth Hospital. She says the root of the problem has been an inability to take the first step, of purifying the virus. This requires obtaining a concentration of "HIV" particles, separating them from other constituents of disrupted cells, photographing them (with an electron microscope) in that isolated state and characterising them as a unique set of virus particles. Most claims of "virus isolation" in Aids literature refer to a variety of indirect signals presumed, but never proven, to indicate HIV's presence.

Particles which HIV scientists have presumed to be the virus can appear when immune cells are cultured in the laboratory. But for that to happen, the cells have to be chemically stimulated, then mixed and grown for several weeks with abnormal cells (obtained from leukaemia patients or foetal cord tissue). With such complicated procedures, it is not clear whether the particles really indicate the presence of an infectious virus, or are simply natural products of the over-stimulated cells. None of 150 chimpanzees inoculated with "HIV" produced in this way developed Aids as a result. After 20 years and billions of dollars, scientists have never been able to demonstrate how the particles they have termed "HIV" could cause the collapse of the immune system seen in Aids.

In a series of extensively referenced papers, Papadopulos-Eleopulos and her prime collaborators, a consultant physician, Val Turner, and a pathologist, John Papadimitriou, argue that whatever the condition, whether Aids as originally described in the first US victims or the long-established illnesses that have come to be described as Aids in Africa, a positive test result does not demonstrate HIV infection but is a non-specific marker for a variety of conditions. The belief that almost all people who test HIV-positive are infected with a lethal virus has not been scientifically substantiated.

"Just to see particles in the tissues, and fail to look for evidence that it is an infective virus, is wrong," says Papadimitriou, a professor of pathology at the University of Western Australia renowned for his work on electron microscopy. "Are these particles that cause disease? The proper controls have never been done." Of Aids in Africa, he comments: "Why condemn a continent to death when you have other explanations for why people are falling sick?"

The elusive nature of "HIV" meant that scientists were never able to validate the "HIV" tests by showing the presence of virus in people who test positive, or its absence in those who test negative. Instead, test kits were calibrated to give a positive result when a person has high levels of the antibodies that the test detects; and negative when the level is low. High levels can indeed be shown to correlate with ill-

health, low levels to good health. So the test kits are useful as a broad screen of blood quality, for example, or of the general health of a group of people. But in accepting the test as indicating infection by HIV, WHO and related authorities made what appears to have been a terrible scientific blunder.

HIV pioneers such as Robin Weiss, now Professor of Viral Oncology at University College, London, who developed the UK's first HIV test, admit the early tests gave misleading results by reacting with infections other than HIV. They say that later versions of the tests overcame these problems. However, they have presented no evidence for that assertion. The Perth group say all versions of the test are intrinsically defective because of the failure to validate them by showing the unequivocal presence of the virus in patients. Even repeatedly positive results are no guarantee that a person is infected with HIV. "When the principle of the test, the basis of it, has not been established, it doesn't matter how many times you repeat it, you still won't prove anything", Papadopulos-Eleopulos says.

Regulatory authorities have known for years that the test does not diagnose or screen for risk of Aids; but hysteria was so great in the early years that they chose to wash their hands of the problem. As far back as 1986, an official of America's Food and Drug Administration (FDA) told participants at a WHO meeting that the primary use of the test was for screening blood donations and that "it is inappropriate to use this test as a screen for Aids or as a screen for members of groups at increased risk for Aids in the general population". He added, however, that enforcing this intention "would be analogous to enforcing the Volstead Act, which prohibited alcoholic beverages sales in the United States in the 1920s – simply not practical."

Fiala points out that, however good the intentions may have been, conducting the fight against Aids on this misleading basis has fatal consequences. For example, in 1999 UNAids urged finance ministers in African countries to cut their budgets for social security, education, health, infrastructure and rural development, in favour of the fight against Aids. As a result, non-Aids problems have suffered years of neglect because of the panic created by WHO's distorted policies and statistics.

In Uganda, there were 4,000 aid organisations in 1994 active in the fight against HIV/Aids; yet many people still have no access to clean drinking water, Fiala found. "In 1990 the figure was 56 % [with clean water]. Ten years and millions of dollars later, it was 50%." In Kyotera, a town in the Rakai district, a particularly large amount of money had been spent on Aids, because it was supposed to be the most heavily affected. "Despite millions of aid funds, campaigns for abstinence and the distribution of condoms, the people of Kyotera still have to get their water during most of the year from an unprotected water hole which they share with cattle."

Aids experts drive around the country in four-wheel-drive, air-conditioned vehicles, says Fiala, "if they are not saving the world from Aids in their comfortable offices or presenting their latest medical experiments on Africans at an overseas conference. The [Ugandan] government has not only bought condoms for millions of dollars on credit, but borrows even more money from the industrialised countries to buy imprecise HIV tests and toxic Aids medications."

He concludes: “The Aids hysteria of the last 20 years was indeed politically correct, but led to a neglect of other far more important aspects in health care.” While innumerable western companies, NGOs, international organisations and Aids experts profited from it, it was to the disadvantage of the people in Africa. “Now, to err is human,” says Fiala, “but a policy that is obviously based on false assumptions and has predominantly negative effects for those concerned has to be discarded or adapted.

“Adhering to it leads to questions regarding the responsibility of the decision-makers. The never more urgent question thus arises of when the current policy will be rethought and adapted to the priorities of the population. People in Africa need help and support. But it is neither helpful nor effective if wrong data and absurd definitions are employed to mislead and divert attention from the real problems.”

Ends