

Shadow on the continent: public health and HIV/AIDS in Africa in the 21st century

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Approaches to the prevention and control of the HIV/AIDS epidemic in Africa have been heavily based on early experiences and policies from industrialised countries, where the disease affects specific risk groups. HIV/AIDS has been dealt with differently from other sexually transmitted or lethal infectious diseases, despite being Africa's leading cause of death. In this review, we discuss the evolution of the global response to the epidemic, and the importance of redefining HIV/AIDS in Africa as a public health and infectious disease emergency. We discuss reconsideration of policies and practice around HIV testing and partner notification, and emphasise the need for an increased focus on treatment. Human-rights based approaches to HIV/AIDS prevention might have reduced the role of public health and social justice, which offer a more applied and practical framework for HIV/AIDS prevention and care in Africa's devastating epidemic.

"Public health is purchasable . . . A community can determine its own death rate . . . No duty of society . . . is paramount to this obligation to attack the removable causes of disease."

Hermann Biggs, New York State Commissioner of Health, 1913

"Public health is purchasable, as has been proved in the past when aroused public interest has stamped out plague after plague which once ravaged the population . . ."

Thomas Parran, US Surgeon General, 1936

Shadow on the Land was the book by Thomas Parran,¹ US Surgeon General under Franklin D Roosevelt, published in 1937, in which he outlined his plan to combat syphilis, at that time an important cause of ill health and adverse outcomes in pregnancy. Parran thought public efforts to combat syphilis had been "scattered, sporadic, and inadequate".² The public health basis of Parran's programme included promotion of case detection, testing (including premarital and antenatal testing), treatment, contact investigation, and public education. Inherent to Parran's vision was the need to demystify syphilis, address it with adequate resources, and define it as a public health rather than a moral problem. Parran's experience in the USA, more than half a century ago, showed how society's definition of a situation shapes the nature of its response, which remains of utmost relevance today as we struggle to respond to HIV/AIDS in Africa.

In this review, we argue that some approaches to HIV/AIDS are poorly adapted to the crisis in Africa because the issue has not been defined and addressed as an infectious disease emergency. We summarise the epidemiology of HIV/AIDS to emphasise the severity of the disease in Africa; analyse the origins and evolution of the

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global response to HIV/AIDS and its application in Africa; review contradictions in approaches to the epidemic; and argue for a reconsideration of policy and practices in HIV testing and partner notification. The panel shows some definitions of terms relevant to discussions of HIV/AIDS. Most infectious diseases are treatable, and our suggestions for practical and perceptual change would be more easily implemented if HIV/AIDS treatment and care in Africa were strengthened and prioritised.

Several core attitudes lie behind this review. First, a uniform global approach might not be suited to the extreme geographical and epidemiological heterogeneity of the pandemic. We do not argue that approaches to HIV/AIDS prevention have caused the situation in Africa, but, rather, that a change in philosophy is necessary to produce a rapid

DEFINITIONS

1 AFRICA to refer to sub-Saharan Africa, where the HIV/AIDS epidemic is most intense.

2 The practice of PUBLIC HEALTH is what we as a society do to assure the conditions for people to be healthy.³ This definition implies that society has control over its own health, and, in turn, determines which diseases are the highest priority to address. It also implies that what we fail to do determines the conditions for people to be unhealthy.

3 SOCIAL JUSTICE means the fair distribution of society's benefits, burdens, and their consequences, including the benefits and burdens of public health action or lack thereof.

4 HUMAN RIGHTS are a legal concept focusing on the individual, and are enshrined in national and international laws and conventions. The relevance of human rights to health is a recent proposition that has evolved with the HIV/AIDS epidemic itself.⁴ Traditionally, civil and political rights have been emphasised, although increasing attention has been paid to economic and social rights, including access to medical care.⁵

5 HIV/AIDS-associated STIGMA refers to attitudes or perceptions of shame, disgrace, blame, or dishonour associated with the disease.

6 VULNERABILITY, which can apply to individuals as well as groups, refers to enhanced susceptibility to HIV infection or its consequences because of socioeconomic, cultural, political, or biological reasons. The concept of vulnerability recognises the restricted autonomy and behavioural choices that exist for many people, and the different levels of risk for HIV infection that the same behaviours might carry in different epidemiological and social contexts.

and substantial effect on the African epidemic and to limit its devastation. Second, HIV/AIDS prevention in Africa has been underfunded; greatly increased resources and strengthened infrastructure are required to tackle the issue.^{3,4} Third, we think that the emphasis on human rights in HIV/AIDS prevention has reduced the importance of public health and social justice, which offer a framework for prevention efforts in Africa that might be more relevant to people's daily lives and more likely to be effective. Finally, on the basis of epidemiological data, we think that HIV/AIDS is the greatest threat to life, liberty, and the pursuit of happiness and prosperity in many African countries. Interventions, therefore, must be quantitatively and qualitatively commensurate with the magnitude of the threat posed by the disease.

Epidemiology

The epidemiology of HIV/AIDS in Africa is fundamentally different from that in the rest of the world. Sub-Saharan Africa contains about 10% of the world's population, yet, in 2001, accounted for over two-thirds of the 40 million people living with HIV; had 68% of incident HIV infections and 77% of AIDS deaths; and accounted for more than 90% of AIDS orphans and children infected with HIV.^{8,9} With the exception of the Caribbean, only in Africa is the epidemic generalised rather than concentrated in and around specific risk groups, with almost the same number of women affected as men. Antenatal prevalence of HIV infection in excess of 5% is very rare outside Africa; by contrast, HIV prevalence in pregnant women exceeds 10% in the capital cities of at least 16 sub-Saharan African countries and is greater than 20% in at least eight.¹⁰ Sentinel surveillance has shown HIV prevalence in pregnant women to be greater than 40% in various settings in Botswana, Zimbabwe, and Swaziland. The devastating social, demographic, and economic consequences of severe and widespread HIV/AIDS epidemics are unique to Africa;¹¹ without the African situation, the HIV/AIDS pandemic would still be tragic but substantially less important.

Evolution of the global response

Since the earliest days of the epidemic, HIV/AIDS has been treated differently from other sexually transmitted or lethal infectious diseases, a trend which Bayer defined as "HIV exceptionalism".¹² Specific areas of public health in which approaches have differed include HIV testing, surveillance, and contact investigation.

HIV testing, available since 1985, has been restricted for medical as well as prevention purposes because of a strong emphasis on informed consent and counselling. Unlike other infectious diseases (eg, syphilis and hepatitis B), for which consent for testing is implicitly assumed by virtue of medical consultation, and diagnosis is encouraged, the diagnosis of HIV infection has often been actively avoided. In many ways, the approach to diagnosis of HIV infection has been more similar to that of an incurable genetic disorder than to an infectious disease. Although surveillance for AIDS has been widely supported, the switch from reporting cases of AIDS to HIV infections has been much debated.¹³ Until recently, prevention efforts targeted specifically towards HIV-infected people had been neglected,¹⁴ and the practices of contact investigation used in sexually transmitted disease and tuberculosis control had been little used.

The approach to HIV/AIDS has its roots in the early history of the epidemic in the USA, when its pathogenesis and natural history were little understood, treatment options were few, and society was at best unresponsive and at worst discriminatory towards a focal epidemic spread by

male-to-male sex and injecting drug use. During that time, when no treatment was available, an unusual coalition was formed between the gay community, medical and public health practitioners, and civil liberty proponents to avoid prevention measures that might "drive the epidemic underground".¹²

Recognition of the epidemic in parts of Africa and of the potential for it to spread internationally came in the mid-1980s, and led to the first global response: the creation by WHO of the Special (later the Global) Programme on AIDS. In the late 1980s, the language of human rights became part of the discussion around HIV/AIDS.^{6,15,16} Vulnerability was named a key factor in epidemiological differences between individuals and communities, and the need to solve root societal causes of HIV/AIDS was emphasised. Despite large differences in rates of HIV infection between and within societies, prevention messages emphasised universal risk and the need for all to take equal precautions. The public health approach of targeted testing and follow-up investigation, typical of tuberculosis and sexually transmitted disease control, was deemed inappropriate, and public health and human rights were portrayed as polarised and even conflicting. Without widespread debate in heavily affected countries, HIV exceptionalism¹² became the global norm.

Diffidence around HIV testing applied to clinical settings as well as to prevention efforts in industrialised and less-developed countries. The assumption by WHO that HIV testing would not be widely available in less-developed countries because of financial constraints led to emphasis on clinical recognition of AIDS, including for surveillance purposes.¹⁷ No distinction was made between HIV testing for diagnostic and prevention purposes, and emphasis on counselling and consent led to widespread avoidance of discussion of testing.

This approach by western countries and international organisations, mandated to protect global health, compounded several factors specific to the African situation. First, the African epidemic is now much more severe than was thought likely in the 1980s; thus, early discussions of public health policy were held without full epidemiological insight. Second, treating HIV/AIDS in a different way from other infections might have exacerbated the sluggish response by Africa. Although the scepticism and denial about HIV/AIDS that was widespread in the 1980s has largely, though not entirely, passed, few African governments address HIV/AIDS as an absolute priority. Despite courageous work on the part of many activists in Africa, there is little "aroused public interest";² indeed, debate often seems more vocal and intense outside the continent.

The pandemic has changed considerably in the past 20 years. By contrast with Africa, AIDS incidence and mortality in industrialised countries have fallen, and paediatric HIV disease has almost been eliminated as a public health issue, largely through antiretroviral drugs.¹⁸⁻²⁰ The advent of therapy in industrialised countries has greatly increased motivation for people to be tested for HIV, and has reduced stigma associated with the disease. Increasing access to HIV/AIDS care and antiretroviral drugs in Africa is now a topic of high-level international discussion, but its potential effect on enhancing prevention and reducing stigma remain to be realised.

Contradictions in HIV exceptionalism

Definitions

How an issue is defined strongly affects how it is addressed. Portrayal of HIV/AIDS against a background of either human rights, poverty, gender, or public health

elicits different responses, but the measure of each response must be its ability to curtail the epidemic, and at what social cost. Our philosophical and technical approaches to HIV/AIDS prevention must interrupt HIV transmission, mitigate the epidemic's clinical and social effect, reduce stigma and vulnerability, and promote the rights and welfare of HIV-infected and uninfected people. We believe that HIV exceptionalism cannot achieve these goals in Africa, and suffers from inherent contradictions.

What if the HIV prevalence were 30% in New York or Geneva?

An exceptionalist approach to HIV/AIDS prevention would almost certainly not be applied in the USA or Europe if an epidemic of African severity existed in the general population. A threat that reduced life expectancy by decades and blighted the future of school-age youth would be met with an overwhelming, emergency response emphasising regular HIV testing, diagnosis, prevention, treatment, and mitigation of social effects, with evaluation of interventions based on epidemiological and surveillance data. For example, in the early 1990s, the New York City Department of Health reacted to epidemic tuberculosis, including multidrug resistant disease, with case finding, contact investigation, and directly observed treatment, which led to control of the epidemic.²¹ This example also shows a careful assessment of the balance between the need to protect individual freedoms and to secure public health.

Stigma

Although human rights instruments and legal interdictions can protect HIV-infected people against discrimination, such as in relation to housing, education, or employment, they cannot protect against stigma, which is social rather than structural. Stigma emerged universally and early on as a powerful, pernicious force that is an important barrier to prevention efforts. Paradoxically, treating HIV/AIDS as being different from other infectious diseases probably enhances stigma rather than reduces it.

The emphasis that has been placed on anonymity for HIV-infected people, which is different from confidentiality and analogous to secrecy, might also have been counterproductive. Anonymity is impossible to maintain as immune deficiency progresses. The quest for secrecy promotes rather than breaks the destructive silence around HIV/AIDS, and divides the known infected from the undiagnosed and uninfected.

Vulnerability

Without a vaccine, infectious disease control is generally based on measures to interrupt transmission from infected to uninfected people. The most successful interventions in industrialised countries, for transfusion-transmitted and perinatally acquired HIV, are based on specific preventive actions after a diagnosis of infection has been made. Although every individual with HIV acquired the infection from another infected person, and a serological test for HIV has been available since 1985, programmes to prevent sexual transmission of HIV have until recently largely ignored individual serostatus and chains of transmission. Because HIV incidence in the USA has appeared stable, despite falling rates of AIDS cases as a result of treatment,¹⁸ the US Centers for Disease Control and Prevention (CDC) is now investing in efforts focused on HIV-infected people to prevent HIV transmission by sex and by injecting drug use.¹⁴

Prevention based on knowledge of individual serostatus has not been emphasised in the African setting, where the most numerically important, most vulnerable population might be people in stable relationships but with different HIV statuses. Avoidance of an approach based on disease investigation has probably obstructed rather than enhanced primary and secondary prevention, interfering with the right of uninfected people to remain HIV-negative, of infected individuals to benefit from treatment and prevention advice, and of society to reduce the effects of HIV/AIDS.

Public health in Africa in the era of HIV/AIDS

We think that Africa would now benefit most from an approach to HIV/AIDS based on a public health model that includes voluntary counselling, testing, and partner notification; routine HIV testing in prevention services such as prevention of mother-to-child transmission, and treatment for sexually transmitted infections; routine diagnostic HIV testing for patients seeking medical treatment (eg, for tuberculosis); and enhanced access to HIV/AIDS care.

HIV testing

Policies towards HIV testing and counselling have been oversimplified and viewed in a uniform manner, ignoring the diversity of goals and settings of testing. Testing people who are well as a preventive intervention requires provision of different information and counselling from testing ill people consulting for care, or people attending health facilities for specific service delivery. Four contexts for HIV testing can be defined: mandatory testing; voluntary counselling and testing for prevention;²² routine testing for delivery of specific preventive health care interventions; and diagnostic testing in the context of individual medical care. All contexts have different standards and practices.

The emphasis on counselling around HIV diagnosis is unique in infectious diseases and merits discussion. Awareness of HIV/AIDS is now high in Africa, and evidence that more extensive pretest counselling is necessary for HIV than for other infections is lacking. What seems most necessary is to make access to information for HIV testing and prevention easily available, remove artificial barriers to testing, and provide appropriate information and medical and social support to infected people.

Mandatory testing

Mandatory testing, the compulsory testing of specific individuals, arouses much controversy, with the exception of testing of blood, semen, and organ donors. It is widely practised in Africa, although mostly for reasons other than prevention. Common examples of mandatory testing include pre-employment screening, including for people entering some religious orders and armed services, and screening for insurance purposes or securing bank loans. Some countries require HIV testing for visa applicants, especially prospective immigrants, and for scholarship and fellowship applicants. Certain occupations require in-service testing, such as sex workers who practise in regulated industries, and some countries require a negative HIV test result for military personnel deployed internationally on peace-keeping missions. Some of these examples of mandatory testing probably reduce HIV transmission, others yield little public health benefit but might further marginalise people infected with HIV. If mandatory testing is practised, it should be based on scientifically supported rationales that apply to other

infectious diseases, and should adhere to the same standards of provision of information, assurance of confidentiality, and referral for services and support as in voluntary testing. With a few exceptions, mandatory testing is likely to contribute fairly little to HIV prevention.

Voluntary testing, counselling, and partner notification

In high prevalence settings, especially in Africa, a stated goal for prevention should be for every citizen, including sexually active adolescents, to know their HIV status, and for repeat testing to occur at regular intervals, and in case of risky behaviour or impending life decisions. This approach would demystify HIV/AIDS, place the responsibility for avoidance of acquiring or transmitting HIV on every individual, and empower the community to take charge of its own health. The participation and example of leaders in all sectors of society would be required, and disclosure, especially but not exclusively, to one's immediate family and sex partners should become the norm. In this respect, a failure of leadership has been the lack of senior, heterosexual, HIV-infected African men who are high-level decision makers to speak out about their infection status, or for families of such men to acknowledge that their disease or death was due to AIDS. By contrast, many HIV-infected Africans who have disclosed their HIV status have been poor, and many have been women.

Universal know-your-status campaigns would need advertising and mass communication to emphasise the benefits of HIV testing, expansion of user-friendly, confidential testing services, emphasis on high technical quality of testing, and establishment of links between testing sites and structures offering care and support for those infected. HIV testing of this nature should be voluntary and confidential, and could be anonymous—although emphasis on anonymity should lessen as HIV testing becomes viewed as a normal event. For the majority of people, who are uninfected, a negative test result offers an opportunity for reinforcement of information and advice on safe behaviours to maintain seronegative status. For infected people, referrals for medical assessment, care, and support can be arranged, and advice given on avoidance of transmission.

Increased efforts are required to arrange for couples to be tested together for HIV infection, so that HIV/AIDS can be approached as a disease of the family and of society. Unfortunately, premarital testing in industrialised countries did not have much effect, which has led to it being ignored in Africa's high prevalence, heterosexual epidemic. For ethical and public health purposes, people should be strongly encouraged to learn the HIV status of prospective sex partners, undergo premarital testing, and notify partners of their status. The usefulness of partner notification as an intervention to prevent HIV or sexually transmitted infection is uncertain in the context of high rates of partner change, but might play a part in assuring the safety of long-term sexual partnerships in high prevalence areas. Couples who embark on long-term relationships or marry unaware of their differing HIV infection status are a source of further adult and paediatric infections, and HIV-negative people in such discordant relationships are one of the largest and most vulnerable groups in Africa. In Rakai District, Uganda, for example, the overall yearly incidence of HIV infection in HIV-negative sex partners of HIV-positive people was 12%, and increased with viral load in the infected person.²³ Most HIV-infected children are born to women unaware of their infection status. The most

practical interventions for prevention of orphanhood, one of the epidemic's most devastating consequences, are to prevent infection in girls, to provide family planning choices to infected women, and to preserve the seronegative status of partners in discordant relationships.

Delivery of prevention services

Short-course antiretroviral treatment can reduce mother-to-child transmission of HIV even in breastfeeding populations.²⁴ However, the delivery of interventions to prevent mother-to-child transmission has proven more difficult than expected, largely because of the requirements for pretest counselling, low uptake, and low return rate by women to obtain their test results. We are now in the paradoxical situation of achieving universal HIV testing in most industrialised countries, where prevalence is low, but not in Africa, where prevalence is high. Since the efficacy of all short-course antiretroviral regimens in breastfeeding populations is under 50%,²⁴ if a substantial proportion of HIV-infected women go untested or untreated the intervention will have little effect at a population level. Provision of nevirapine to all mothers has been suggested and might be appropriate if HIV testing has not been possible, but it represents a less than ideal solution if applied as a means to avoid HIV testing.

The reasons for women to refuse HIV testing are related to stigma, discrimination, and potential consequences such as domestic violence, abandonment, or murder,²⁵ though the frequency of these adverse events is uncertain. The perceived benefits and rights of women to refuse testing need to be weighed against the risks to infants of being exposed to the virus, which in a breastfeeding population results in 40% or more of exposed infants being infected and dying prematurely.²⁴ A rational public health approach would be to make antenatal HIV testing a routine component of obstetric practice in Africa, including rapid testing during labour for women whose HIV status is unknown, so that all HIV-exposed infants can benefit from preventive antiretroviral drugs. Routine testing was advocated by the Institute of Medicine to prevent mother-to-child transmission of HIV in the USA;²⁶ the institute deemed the requirement for pretest counselling a barrier to prevention.

Other sexually transmitted diseases increase the risks of acquisition and transmission of HIV, and people with such diseases are more likely than uninfected people to have been exposed to and infected with HIV. People with sexually transmitted diseases might contribute disproportionately to the transmission of HIV in populations; thus, control of these infections is an important component of any HIV prevention programme.²⁷ Routine HIV testing of people with sexually transmitted diseases, with provision of prevention services and medical referral, provides an opportunity for high-risk individuals to adopt safer behaviour and benefit from follow-up medical care if necessary.

Routine HIV testing differs from mandatory testing in that it implies a default policy of testing unless an individual specifically elects not to have it. Routine HIV testing is done as part of medical and prevention best practices analogous to blood pressure monitoring and syphilis screening, because specific actions are undertaken on the basis of a positive result. Routine HIV testing should not require specific consent or pretest counselling provided that all clients are informed that routine testing is part of the package of services for which they are voluntarily attending. Although information should be available for clients for all tests that are done, routine HIV

testing would not be approached differently from other clinical investigations. Follow-up information and discussion are needed to convey specific advice to patients for prevention and care.

Service delivery, such as clinical care, should provide confidentiality, but is incompatible with anonymity or secrecy. One of the negative effects of HIV exceptionalism has been to confuse anonymity with confidentiality—a different approach from the standard in other diseases. Finally, routine HIV testing should be accompanied by structural changes such as legal and social interdictions against discrimination or abuse of infected people. The responsibility of HIV-infected people to learn their status and act accordingly has to be balanced by that of society in providing a supportive environment that provides strong protection against discrimination.

Diagnostic testing

In many African settings, more than half of hospital beds are occupied by patients with HIV disease, and more than half of new patients with tuberculosis are HIV-infected. For many reasons, little HIV testing is done: the cost and logistics of testing, the burden of pretest counselling, the belief that little can be done and that bad news adversely affects patients, and reluctance on the part of health-care workers to address HIV/AIDS. As a consequence, most African patients with HIV disease never receive a formal diagnosis, and some undertake long and costly searches for a cure. Few resources, fear of stigma, and reluctance by health workers to discuss HIV/AIDS collude to promote silence around the disease, even in areas where it is the leading cause of admission to hospital and death.

Rational provision of care and use of health-care resources are not possible in these conditions, and the traditional basis of good medical practice—accurate diagnosis and its communication to the patient—has been subverted. Interventions to prevent opportunistic infections are of benefit in Africa,²⁸ and are widely affordable but little used, in part because HIV/AIDS diagnosis has not been emphasised. Increased access to antiretroviral drugs has attracted widespread attention, prices have fallen considerably, and use of cheaper generic drugs is likely to rise. If the benefits of antiretroviral treatment and prevention of opportunistic infection are to reach the people who need them, routine diagnostic HIV testing will have to become standard practice in medical care. Routine HIV testing should initially be concentrated in general medical and tuberculosis patients, but in the long term, testing and provision of follow-up information should become a routine component of all health-care interactions.

Conclusions

Inadequate resources, infrastructure, and commitment, and reluctance to address HIV/AIDS as a public health and infectious disease issue, are barriers to prevention and care in Africa's high prevalence epidemic. These forces have increased individual and societal vulnerability, and enhanced stigma. Paradoxically, for many Africans, HIV/AIDS has become the main threat to the very notions that an approach based on individual rights aimed to protect. The normalisation of HIV/AIDS in a philosophical context of public health, medical ethics, and social justice is not a threat to individual human rights; rather, failure to prevent HIV transmission constitutes an infringement of human rights that hampers Africa's human and social development.

The concept of social justice is most relevant to the policy issue of how to increase access to effective

HIV/AIDS treatment in Africa. In human rights discourse, emphasis is now placed on social and economic rights such as the right to housing, employment, and health,⁷ offering a bridge between social justice and human rights. Along with HIV/AIDS, malaria and tuberculosis are now perceived as barriers to development in Africa, providing an opportunity to harmonise approaches to these health challenges. To change the philosophical framework of how we address HIV/AIDS in Africa will require innovative leadership, especially from international agencies charged with protecting and promoting health. Without such leadership, the hopes and aspirations raised by the Global Fund to Fight AIDS, Tuberculosis and Malaria²⁹ will not be met.

Contributors

K De Cock initiated discussions and was the main author. D Mbori-Ngacha contributed conceptually on the basis of practical experience, reviewed the manuscript, and edited changes. E Marum contributed conceptually on the basis of experience, wrote parts of the text, and reviewed and edited the manuscript.

Conflict of interest statement

None declared.

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Uses of error

Always something new from Africa

Barry I Joffe

I can reflect on 30 years of teaching hospital practice with some nostalgia. Certain clinical presentations, and the glaring mistakes that I made in my initial contact with them, stand out. Three of them taught me particularly important lessons that I did not forget when faced with them on subsequent occasions.

The first patient was a dyspnoeic young lady who presented with physical signs suggestive of a large right-sided pleural effusion. This happened during the course of a busy medical out-patient session at a hospital in central Johannesburg. I confirmed the diagnosis on chest radiograph and confidently sent the patient to the admission ward for a diagnostic pleural tap, convinced that tuberculosis was the cause. However my confidence was badly dented when the attempted aspiration revealed “anchovy paste” material and the diagnosis turned out to be an amoebic liver abscess that had ruptured into the right pleural cavity. I encountered several similar cases over the years and frequently impressed my registrars by making this diagnosis in advance of any diagnostic intervention.

The second patient was a young manual labourer who was admitted with acute cardiovascular collapse a short time after the previous case. He was hypotensive, acidotic and in severe biventricular failure. Our initial assessment was one of a toxic myocarditis or acute systemic poisoning

and we prepared to manage the patient accordingly. However, the legendary head of medicine at that time, Professor Harry Seftel, suggested the diagnosis of acute pernicious or Shoshin beriberi, and the young man made a remarkable recovery following the administration of parenteral thiamine. It soon became standard practice to administer thiamine to African patients with idiopathic dilated cardiomyopathy (in addition to routine antifailure therapy) and this is still done today.

The third patient was a middle-aged gentleman sent up to the admission ward one Monday morning with severe hypoglycaemia. He was malnourished and had apparently been drinking heavily over the preceding weekend. After a fruitless (and expensive) search for conditions such as insulinoma, tumour hypoglycaemia, and exotic drugs, we eventually arrived at the diagnosis of alcohol-induced hypoglycaemia. Little was known about its pathogenesis in the early 1970's and, after seeing many more examples of this syndrome in the ensuing months, we decided to investigate its metabolic and hormonal determinants. However, its frequency seems to have diminished in recent years, possibly as a result of changing drinking patterns.

The cliché “ex Africa semper aliquid novi” (there is always something new from Africa) springs to mind when recounting these case histories, but the HIV/AIDS epidemic threatens to engulf our hospitals now.

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