AIDS, individual behaviour and the unexplained remaining variation

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From the start of the AIDS pandemic, individual behaviour has been put forward, implicitly or explicitly, as the main explanatory concept for understanding the epidemiology of HIV infection and in particular for the rapid spread and high prevalence in sub-Saharan Africa. This has had enormous implications for the international response to AIDS and has heavily influenced public health policy and strategy and the design of prevention and care interventions at national, community and individual level.

It is argued that individual behaviour alone cannot possibly account for the enormous variation in HIV prevalence between population groups, countries and regions and that the unexplained remaining variation has been neglected by the international AIDS community.

Biological vulnerability to HIV due to seriously deficient immune systems has been ignored as a determinant of the high levels of infection in certain populations. This is in sharp contrast to well proven public health approaches to other infectious diseases.

In particular, it is argued that poor nutrition and co-infection with the myriad of other diseases of poverty including tuberculosis, malaria, leishmaniasis and parasitic infections, have been neglected as root causes of susceptibility, infectiousness and high rates of transmission of HIV at the level of populations.

Vulnerability in terms of non-biological factors such as labour migration, prostitution, exchange of sex for survival, population movements due to war and violence, has received some attention but the solutions proposed to these problems are also inappropriately focused on individual behaviour and suffer from the same neglect of economic and political root causes.

As the foundation for the international community’s response to the AIDS pandemic, explanations of HIV/AIDS epidemiology in terms of individual behaviour are not only grossly inadequate, they are highly stigmatising and may in some cases, be racist. They have diverted attention from poverty and powerlessness as root causes of vulnerability to infection and as such they are a waste of scarce resources.

A return to a basic needs approach to all the diseases of poverty is nothing more than proven public health wisdom and experience. A sustainable and meaningful response to AIDS is simultaneously a sustainable and meaningful response to all the diseases of poverty.

The obstacles to the adoption of this approach are economic and political and must be confronted at the level of international financial institutions, the globalisation of neololiberal economic systems, the growing power imbalances between and within nations and the undermining of democracy and national sovereignty.

An alternative strategy for AIDS and the other diseases of poverty would build on macroeconomic reforms for a fair, rational and sustainable international economic order so that democratically elected governments may meet their people’s basic needs, including health, without external interference.

Key words: AIDS, behaviour, gender, macroeconomics, population susceptibility, promiscuity, poverty, racism, social justice

Introduction

Individual behaviour, as the explanatory concept in understanding the spread of HIV/AIDS, is a diversion from the root causes of this quintessential disease of poverty.

For over twenty years now, the international AIDS community has persisted in a reductionist obsession with individual behaviour and an implicit acceptance of a deeply flawed and essentially racist theory. This has had enormous implications for the international response to AIDS and has heavily influenced public health policy and strategy and the design of prevention and care interventions at national, community and individual level.

The insistence on analysing this colossal public health catastrophe in terms of individual behaviour has correspondingly restricted the response to action at the individual level, usually promotion of safer sex, condom use and information, education and communication (IEC) campaigns (See for example WHO, 1992; WHO, 1997; UNAIDS, 1999; UNAIDS, 2000).

Predictably, the impact of these peripheral efforts on the spread of the epidemics has been insignificant. Pale and stale ‘success’ stories are regularly wheeled out for display. Undeniably, these offer useful lessons but without attention to underlying factors, such efforts are likely to be cosmetic and unsustainable — and to remain exceptions. As such, and in view of the scale of suffering and death due to AIDS, they represent a waste of precious resources.

History’s judgement will be severe. The international AIDS/health community has neglected root causes and therefore failed to apply meaningful and long term solutions to limit or halt the spread of this dreadful disease — and of course, the other diseases of poverty.

This neglect is not the result of some unfortunate igno-
rance — the fundamental public health lessons of the past 150 years are well known (McKeown, 1976; Sanders, 1985). It is the result of efforts to preserve the status quo at all costs and to leave untouched an international economic order which brings inestimable advantages to the powerful nations. Examination of root causes would imply a fundamental shift in this order, massive redistribution of the earth’s resources and an end to the fantastically exploitative relations between North and South.

Macroeconomic and political factors are the major determinants of poverty, poor overall health status of populations and the high prevalences of HIV/AIDS (and the other big killers, diarrhoeal disease, respiratory infections, malaria, tuberculosis etc.) in the least developed countries of the world (Haines & Smith, 1997; Stillwaggon, 1997). Social and cultural factors, and then in turn, individual behavioural factors come into play against this background of extreme deprivation and poor overall health status.

Africa has paid — again — for the arrogance and cynicism of a savage neoliberal dictatorship which in the age of globalisation has a further formidable weapon at its disposal — massive disinformation and the capacity to impose ‘la pensée unique’ [the single line of thought] (Pligler, 1999; Ainger, 2001).

A large part of the disinformation in the discourse on AIDS is taken up with the assumption — implicit or explicit — that high rates of infection in heavily affected countries, notably in sub-Saharan Africa, are due to the particular behaviour of their citizens. Running parallel to this dubious proposition is the perverse refusal to confront the obvious — such as the almost perfect ‘coincidence’ of high prevalence of HIV/AIDS (and all the diseases of poverty) with the poorest regions of the earth.

An epidemic of gigantic proportions is taking hold in South East Asia, home to an even larger number of powerless and poverty stricken people, with very poor overall health status. It will be interesting to see if any notion of structural violence is at last invoked to advance our understanding of the dynamics of the pandemic or if we will ‘discover’ that previously quite well behaved Asians are in fact as ‘promiscuous’ as Africans.

The irony of this state of affairs is that the international AIDS community has loudly trumpeted its commitment to respect for human rights in the fight against AIDS to the point of degrading its audience to the faint protests of those most affected — those who, in fact, are more or less accused of ‘bringing it on themselves’ by ‘behaving badly’.

The assumption that individual behaviour accounts for most or all of the variation in prevalence of HIV/AIDS is highly stigmatising and has its origins in racist mythology (Gausselt, 2001; Stillwaggon, 2001). It is in itself an affront to human dignity. Furthermore, the failure to acknowledge and take action on poverty and powerlessness as major determinants of the pandemic reveals an extremely partial (and North American) approach to human rights — one which steadfastly ignores collective social and economic rights — among the five supposedly ‘indivisible’ human rights — in favour of individual civil, political and cultural rights.

The right to an adequate standard of living and the right to food for example, proclaimed at the World Conference on Human Rights in Vienna 1993, are practically never addressed. Discussion is limited to social and legal discrimination, employment, privacy and confidentiality, the right to information and education, freedom of expression and association, freedom of movement, and freedom from inhuman and degrading treatment (see for example, UNAIDS, 1997; Human Rights Internet, 1998).

Part 1 of this paper sets out the limitations of explanations in terms of individual behaviour, given the enormous variation in prevalence between populations. It is argued that poverty as a root cause of population vulnerability, irrespective of individual behaviour, has been largely neglected. Even when aspects of poverty, such as migrant labour or sex work have been recognised as determinants of vulnerability, the analysis has not been translated into strategy and action. It is also argued that gender analysis in AIDS discourse may have contributed inadvertently to the diversion from root causes and that the focus on individual behaviour derives in part from racist mythology in the same way as it did in 19th (and some 20th) century anthropology.

In Part 2, it is argued that the biological vulnerability of populations (both susceptibility to HIV infection and infectiousness, resulting in high population transmission rates), has been neglected with the notable exception of STI prevention and control, and the biological vulnerability of women to all sexually transmitted infections. Plausible explanations for the huge differences between population groups are discussed in terms of poor nutrition and co-infection, both of which are poverty related. A sample of research findings supporting these explanations are provided.

In Part 3, a return to the basic needs approach as exemplified by the 1978 Declaration of Alma Ata on Primary Health Care, is urged as the only rational approach to AIDS and the diseases of poverty. The macroeconomic and political factors determining poverty (and therefore, by and large, population health status) in the era of corporate-led globalisation are outlined as is the related crisis in democracy internationally and nationally. Fundamental to the basic needs approach is a fair and rational international economic order — favouring self sufficiency especially in achieving food security — rather than aid/charity. Three key measures which would release trillions (rather than millions) of dollars for development immediately are debt cancellation, a tax on speculation and above all, fair trade. Lastly, foundations for an alternative strategy to AIDS and the diseases of poverty are proposed.

The limitations of individual behaviour as an explanatory concept

It is the thesis of this paper that only a small part of the huge variation in HIV prevalence between regions and population groups has been either explained or addressed — the part which might reasonably be attributed to differences in individual sexual behaviour.

There are huge differences in prevalence of HIV infection between regions, most notably between advanced industrialised nations with rates below 0.1% in the sexually active population and the poorest, most severely affected nations in sub-Saharan Africa with rates between 20% and 25% and above (UNAIDS, 2001).
Individual behaviour cannot possibly account for the enormous variation which would imply that people in some African countries have at least 250 and even 2 500 times more unprotected/unsafe sex than people in Europe, the USA or Australia (even taking into account exponential increases in areas where HIV spread widely and silently before action was taken). The sheer improbability of differences of this magnitude, in rates of sexual activity between population groups, is not addressed because assumptions about sexual behaviour are usually implicit. Myths and taboos thrive precisely because they are unstated and rarely subjected to scrutiny.

Even if it could be shown that people (men in particular) in high prevalence areas had twice, five or ten times as much unprotected sex/unsafe sex as those in low prevalence areas — and evidence is flimsy in the academic area known as sexual networking — it would still only explain a small proportion of the variation.

With the exception of untreated sexually transmitted infections (STI) and selected social and economic factors of vulnerability (discussed below), most of the variation in HIV prevalence remains unexplained. Examination of social and economic factors of vulnerability is almost always restricted to the national and community level and rarely ventures into the far more significant area of international power relations and macroeconomic factors.

The paper explores some of the possible reasons for the neglect, by the international AIDS community, of what we will call ‘the unexplained remaining variation’ and draws attention to well established public health lessons of the nineteenth century and areas of current research which might provide plausible explanations for a large part of the variation.

Population vulnerability irrespective of individual behaviour

Biological vulnerability to HIV due to seriously deficient immune systems has been ignored as a factor of vulnerability and determinant of the high levels of infection in certain populations. This is in sharp contrast to well proven public health analyses and approaches to other infectious diseases, in which it is widely accepted that the overall health status of populations, adequately functioning immune systems and capacity to fight off infection are directly related to reliable supplies of nutritious food, clean water, decent sanitation and basic health services.

 Likewise, the biology of co-infection with the myriad of other diseases of poverty, whether these be tuberculosis, other respiratory infections, diarrhoeal disease, parasitic infection, malaria and other tropical diseases such as leishmaniasis, has also been neglected as a factor determining susceptibility to HIV infection and infectiousness to others once dually infected. (Co-infection with STIs has been the exception — as discussed below). This is despite evidence of the mutual exacerbation of vulnerability to each of these infections by each of the other infections — for example active TB increases HIV viremia and may thereby contribute to more efficient transmission of the virus (Toossi, Johnson, Kanost, Wu, Luzze, Peters, Okware, Joloba, Mugyenyi, Mugerwa, Aung, Ellner & Hirsch, 2001).

A recent and notable exception is Stillwaggon (2002) who examines the biomedical effects of economic conditions in Africa that contribute to high rates of HIV transmission. The results of her statistical analysis show the correlation of economic and epidemiological variables (nutrition, distribution of income and urbanisation with rates of HIV transmission).

“A century of clinical practice demonstrates that people with nutritional deficiencies, parasitic diseases, generally poor health and little access to health services or who are otherwise economically disadvantaged have greater susceptibility to infectious diseases whether they are transmitted sexually, by food, water, air or other means.” (Stillwaggon, 2002)

Many will protest that the connections of AIDS with poverty have been recognised from the start. This is true, although in a curious reversal of logic, the recognition has invariably been in terms of the economic impact of AIDS on communities and its devastating effects on productivity rather than on poverty as the determining factor of extreme susceptibility to all infections including HIV.

Population vulnerability in terms of non biological factors has been acknowledged. Attention has been given to a range of social and economic factors such as labour migration, prostitution, exchange of sex for survival, gender power imbalances and population movements due to war and violence. However, the solutions proposed to these problems are also inappropriately focused on the residual action possible at the level of individual behaviour and very rarely refer to the larger macroeconomic and political context — let alone propose interventions at this level.

A good example of this is provision of condoms and IEC, at the pithead of privately owned mines in Carletonville, South Africa, to migrant workers thousands of miles from home and to local women reduced to servicing men’s sexual needs for their own and their children’s survival.

Never does it appear to be considered that this unhealthy — even life threatening — situation is socially constructed and can therefore be socially deconstructed by arranging that men and women live and work in their own communities (perhaps even in a mining cooperative in nationalised mines) on their own land, using their own resources, and enjoying the fruits of their own labour.

The solutions proposed (Campbell & Mzaidume, 2002) are ‘bonding and bridging social capital’ which to those unfamiliar with new management jargon refer respectively to peer education among miners and an alliance between the women who sell sex to the miners and the mine owners as “these two groups both want mine workers to use condoms albeit for different reasons” (p. 230). This looks suspiciously like an unholy alliance created to make sure the miners keep bringing up the gold for Anglo American and Goldfields.

In their conclusion, the authors plead for an approach which goes beyond the biomedical or behavioural but their own perspective is limited to the role of social and community factors, presumably within Carletonville.

As a foundation for the international community’s response to the AIDS pandemic, explanations of HIV/AIDS epidemiology in terms of individual behaviour are not only grossly inadequate, they are insulting, highly stigmatising — and fatal.
A return to the ‘basic needs’ approach of Alma Ata in 1978 (International Conference on Primary Health Care, 1978) to all the diseases of poverty would be nothing more than proven public health wisdom (Sanders, 1985). A sustainable and meaningful response to AIDS is simultaneously a sustainable and meaningful response to all the diseases of poverty.

The obstacles to the adoption of this approach are economic and political and must be confronted at the level of international financial institutions, the globalisation of neoliberal economic doctrine, the growing power imbalances between and within nations and consequent undermining of democracy and loss of national self determination. (For a review of the essentials of these processes see Ellwood, 2001).

The quintessential disease of poverty
In common with all sexually transmitted infections (STIs) HIV/AIDS has a particular relationship to poverty (Aral & Holmes, 1999). This is over and above those aspects of poverty — lack of food, water, sanitation, shelter, security and basic health services — which determine vulnerability to all the biggest killers in poor countries: acute respiratory infections, diarrhoeal disease, malaria, TB and AIDS.

The poor are more vulnerable to HIV infection than the rich — notwithstanding transient vulnerabilities of ‘richer’ men who can afford to use prostitutes — of which much has been made. For example it is asserted (UNAIDS/World Bank, 2001, p. 41) that as “the urban elite who purchase sex, travelling businessmen who have casual sex, and officers in the armed forces are not among the poor...it would be overly simplistic to see HIV purely as a ‘disease of the poor’. Not as simplistic as that from a global perspective, given that 95% of infections are in developing countries and more than 70% are in sub-Saharan Africa where over 80% of the deaths have occurred.

What needs to be understood, is that in the early stages of any STI epidemic, two groups will be disproportionately affected, those who take risks and those who, for various reasons, are exposed to risks taken by others. The distinction between imposition of risk and submission to risk was blurred until quite recently by use of the term ‘risk groups’ or ‘people at risk’ to refer to both categories. Higher rates of infection, in male urban elites, due to greater purchasing power of sexual services, are to be expected in the early stage of epidemics. When the disease spreads into the general population, as we have seen, the highest rates of infection shift to the poor and powerless, whilst the urban elites reduce their risks through access to information and methods of protection.

Women are more vulnerable than men, young women are far more vulnerable than young men. Rates of infection are 4–5 times higher in 15–19 year olds in selected sub-Saharan African countries (Glynn, Carael, Auvert, Kahindo, Chege, Musonda, Kaona & Buve, 2001). Oppressed and marginalised ‘minorities’ (Blacks and Hispanics in the USA, (UNAIDS/PAHO/WHO, 2000) and refugees everywhere (UNAIDS, 1997; Kaliperi & Oppong, 1998) are more vulnerable than dominant majorities. The most powerless people on earth are probably street children and their lives can only be described as obstacle courses of potentially fatal hazards including violence, cold, hunger, drug overdose, or AIDS acquired through rape or prostitution (Senanayake, Ranasinghe & Balasuriya, 1998; Lalor, 1999; Ribeiro & Trench Ciampone, 2001).

For people to protect themselves from STIs including HIV they need a certain degree of control over the events and circumstances of their lives. They need access to functioning health services, a level of education permitting them to take precautions and the financial means to pay for such protection. They need sufficient financial independence and personal autonomy to be able to choose when, where, with whom and with what protection if any, they have sex. Clearly, few men in developing countries — and even fewer women as they are rarely in a position to control or negotiate sex (KIT/ SAF/AIDS/WHO, 1995) — have this autonomy.

Stigma and taboo have never been properly addressed
Despite the ritual exhortations against stigma, denial and taboo and for non-discrimination, ‘normalisation’ and open discussion, the international AIDS community has never escaped from its own emotionally charged interpretation of individual agency in the spread and pattern of the epidemic.

Stigma and taboo have never been properly addressed for two reasons. First, sexual stereotypes (sometimes of a racist nature as discussed below) persist precisely because sexuality is still very much a taboo subject in all societies, notwithstanding certain ideas about sexual liberation which often reinforce rather than remove stereotypes. Certain prejudices about sexuality in other cultures have gained credence when they have not, in fact, been adequately investigated. Second, attention has focused on sexually transmitted infections and AIDS when there are far greater objects of stigma and taboo today which represent formidable obstacles to effective prevention. These are poverty, powerlessness and inequality between and within countries.

As a sexually transmitted infection and an ultimately fatal disease, HIV/AIDS was bound to be both stigmatised and feared. Whilst the fear is rational, the stigma is not and the latter could have been rapidly dissipated by a rational and common sense interpretation of HIV transmission.

The focus on individual behaviour is almost as absurd in the response to AIDS as it would be if it were applied to the response to tuberculosis. A sound public health approach to TB (see for example Feldberg, 1995) does not exhort people in high prevalence areas not to breathe too much on each other (not understanding that they are breathing more or less like every other human being on earth) and then fail to address the sanitary, nutritional and housing arrangements which determine their high vulnerability.

Breathing and having unprotected, penetrative vaginal sex (responsible for the overwhelming majority of HIV infections, particularly in poor countries) are perhaps not quite in the same category but both can reasonably be seen as everyday human behaviours. The common sense interpretation of the actual risk attached to these behaviours is that they occur in environments which range from highly dangerous to more or less safe. The corresponding non-stigmatising public prevention message would alert people to the high
risk environment in which they live and would convey to them the critical importance of individual protection.

What is required — as the basis for rational and decisive action to save lives — is compassionate and objective recognition of high risk physical and economic environments coupled with dangerously weakened immune systems leaving people highly susceptible to infections of all kinds including HIV.

This in no way implies neglecting those prevention and care interventions at the level of individuals and communities which improve or prolong life, reduce immediate short term risk and alleviate suffering — which are moral imperatives in their own right and have non-negligible preventive value.

It does imply however that this action be clearly positioned within a much larger framework which addresses population vulnerability and environmental risk beyond the control of individuals, communities and, in many cases, as discussed below, nation states.

UNAIDS (2000, p. 37) asserts that “after years of focusing on personal choices about lifestyles, by the early 1990s, AIDS prevention programmes were giving renewed attention to the social and economic context of people’s daily lives, the context that shapes sexual and drug related behaviour.”

This is still a very narrow context which neglects population vulnerabilities irrespective of individual behaviour and irrespective of how these behaviours are mediated.

‘Enabling and supportive environments’ (to use the jargon) are promoted to enable and support behaviour change. But some ‘environments’ such as landlessness, destitution, migrant labour and sex tourism/sex slavery are themselves threatening to life and health. The international AIDS community should be strongly advocating for them to be tackled in their own right!

Gender diversions

The extreme reluctance for many years to acknowledge that HIV/AIDS, like any STI, is a disease transmitted essentially through heterosexual intercourse (Mann, 1991: Corea, 1992), is explicable in terms of heterosexual masculinity (for a full review see Sweetman, 1997) and an obsession, in mainstream western culture, with the exotic and unusual in sexual matters (Harrison-Chirimuuta & Chirimuuta, 1997).

For example, in order to illustrate that “sex is the most socially diverse of human activities”, Aggleton, O’Reilly, Slutkin and Davies (1994, p. 342) cite “the ingestion of semen by young men in Papua New Guinea to create their reproductive potency”. Notwithstanding the lure of the obscure, it could be argued that there are more commonalities than diversities in sex as a human activity across the world.

Even today, it is generally not known that when AIDS hit the headlines as a ‘gay plague’ in California, it was already a heterosexual epidemic in parts of Africa (Reid, 1992). The unimportance — in the eyes of the rich and powerful — of African people generally and of women in particular undoubtedly accounts for much of this ignorance.

As a commentator in the Economist (2000) remarked: “what needed to be shouted from the rooftops...was that AIDS (was) not primarily a disease of gay western men or of intravenous drug injectors. It (was) a disease of ordinary people leading ordinary lives except that most of them happen to live in a continent, Africa, that the rich countries of the world find easy to ignore.”

However, when serious attention was finally paid to the problem of heterosexual masculinity in relation to AIDS, it became clear that the neglect was also due to an extreme reluctance to examine ‘standard’ masculine sexual behaviour as a factor in HIV transmission. It was vastly preferable for the dominant class to attribute the spread of this plague to the exotic and unusual practices of marginalised and despised groups such as homosexuals, injecting drug users, prostitutes, and foreigners.

In the early 1980s for example, speculation about the Haitian origin of AIDS and the role of bizarre voodoo practices led to a wave of anti-Haitian discrimination. As with Jamaica, the Dominican Republic and Trinidad, it turned out that tourists (mainly US male homosexuals) were the most likely source of virus transmission. As Farmer (1999, p. 126) says “AIDS in Haiti has far more to do with the pursuit of trade and tourism in a dirt poor country than with ‘dark satanism’”.

It was often claimed that one of the major obstacles to prevention was that the behaviours associated with transmission were unusual, highly stigmatised or even illegal (see for example IMPACT/UNAIDS/USAID, 1998, p. 1). Some of course were — notably injecting drug use. But for the majority, nothing could have been more misleading except perhaps the public health messages urging fidelity/monogamy which represent the other side of the same coin. Both these messages, namely, that ‘normal sex is OK’ and that ‘if you are a good ‘faithful’ wife (or husband) you are safe’ led to fatal complacency and misunderstanding (Patton, 1994).

These lessons are well known and it causes no outrage today to state that the greatest risk factor for HIV infection, for women in many poor countries, is being married. Estimates suggest that between 60–80% of women currently infected in sub-Saharan Africa have had only one sexual partner (Adler, Foster, Richens & Slavin, 1996). Kilmall (2001) reported that 76% of new HIV infections in Thailand occurred in married women who had never had a casual partner.

Again, it is a question of how much of the variation in prevalence between regions is accounted for by behaviour — but this time in terms of gender imbalance. Put simply, how different is the behaviour of African and European men towards African and European women, respectively?

Women in sub-Saharan Africa carry a risk of contracting HIV at a rate 500–1 000 fold compared to women in the rest of the world (Essex, 2001). This is quite a large difference to explain in terms of male sexual behaviour.

Still today, we are reading that “if we are to contain the HIV epidemic we must tackle its root cause — gender inequality” (Rao Gupta, 2002). How can it possibly have escaped the notice of these researchers that men in sub Saharan Africa are about 250 times more vulnerable and oppressed than European, US American or Australian women in this and almost all other respects?!” Gender inequality is embedded in the real root causes of high rates...
of HIV prevalence which are desperate and incomparable poverty and powerlessness of people of both sexes in many poor countries.

If such an apolitical gender debate has resulted in shifting the blame from all African people to all African men, it has failed.

Multiple partners, wide acceptance of prostitution, and a variety of cultural practices elicit strong condemnation with justification in many cases (for example, very early marriage/sexual intercourse for young women or the enormous- ly publicised practice of sex with virgins in order to cure AIDS). Upon closer examination, some have been revealed as not especially ‘risky’. Polygamy for example, if sexual relations are limited to an uninfected circle of husband and several wives, is likely to be as safe as monogamy (Foreman, 1999). Confusion between moral or cultural values and objective assessment of risks to health of various practices, still abound.

Is racist mythology still playing a part?

Western interest in African sexuality or ‘ethnopornography’ as some have termed it, has a long and rather sordid histo- ry. As Gaussett (2001) recounts, during the 19th and early 20th century, missionaries and armchair anthropologists ‘studied’ local customs describing them as primitive and immoral. African sexuality was seen as ‘wild, animal-like, exotic and insatiable’. After the 1950s, such studies became rare but with AIDS they reappeared and many of the same cultural prejudices resurfaced, most notoriously with the suggestion that HIV passed to humans through sexual intercourse with apes.

In an analysis of health, culture and AIDS, Crawford (1994, p. 1360) points out that the ‘pathologised other is fantasised not only as diseased but also as dangerously sexual. Gay men, Native Americans, Africans and African Americans, Jews, the working classes, the poor and women have all been periodically characterised as hyper-sexual and deviant’. It is an integral part of discrimination, sexism and racism.

In 1989, Rushton and Bogaert theorised that there are racially-related and differing sexual/reproductive strategies among human beings which affect susceptibility to sexually transmitted disease and AIDS. Dividing humans into three ‘races’, they proposed that ‘mongoloids’, ‘caucasoids’ and ‘negroids’ differ in questions of sexual restraint, with the latter (predictably) having the least. They concluded that race is a more powerful predictor of sexual behaviour than educational level or social class. As Hunt (1996) points out, race is, in any case, a social construct which has no phenotypical or genotypical basis. The Rushton and Bogaert (1989) theo- ry is extreme in its reductionism and furthermore, it ignores the obvious and well established role of social factors in determining sexual behaviour.

Caldwell, Caldwell and Quiggin (1989, p. 188) argued that “there are at least two fundamentally different human cultural patterns regarding sexuality and reproduction”. According to these researchers, the African cultural system (in contrast to the Western system) is characterised by weak marriage bond, lack of importance placed upon chastity, rel-ative freedom of young women and men with regard to sexual-ity, and the emphasis placed upon high fertility. Hunt (1996) observes that the existence of a unified coherent African cultural approach to sexuality and reproduction would appear unlikely but in any case, it does not explain the varied patchwork of prevalence in infection rates on the African continent.

Whilst Caldwell et al. (1989, p. 187) caution against any value judgements or the use of loaded terms such as promiscuity, they assert that “the African system tends to increase the number of sexual partners’ and is ‘vulnerable to attack by all coital-related disorders’.

Like the first studies on African sexuality, the assumption underlying much recent research is that if the pattern of AIDS is different in Africa and Europe, the explana- tion has to lie in the difference between African and European culture and sexuality (Hunt, 1996).

Gaussett (2001) has argued that the fight against AIDS in Africa has been dominated by long standing Western prejudices against African sexuality and cultural practices such as polygamy, sexual cleansing or widow inheritance which are not in fact incompatible with safer behaviour. He points out that prevention campaigns in Europe or the USA do not seek to eradicate behaviours such as homosexuality or drug addiction but rather advise them to make their practices safer.

There is little evidence to support Western perceptions of African sexual promiscuity and as Poku (2001, p. 194) reminds us, “in the absence of penicillin, the war-ravaged Europe of the late 1940s would have been devastated by epidemics of syphilis and gonorrhoea”. Such epidemics are “the natural outcome of the combination of men without social constraints and women without any means of support for themselves and their families—a situation that is not dissimilar to that confronting contemporary Africans” (Poku, 2001, p. 195).

What seems to emerge from the literature with consis-tency is that multiple, mostly serial, casual and unprotected sex is common in Africa, Europe, the USA and parts of Asia, with most men everywhere having more partners than most women (KIT/SAI AIDS/WHO, 1995; WHO, 1995).

By way of illustration, let us take the case of many very young women in sub-Saharan Africa who appear to have been infected almost immediately they married or became sexually active (Glynn et al., 2001). Gender imbalance at the level of individual behaviour only explains a part of this phe- nomenon which after all occurs very rarely among sexually active young women in Europe.

Differences in sexual behaviour between regions, coun-tries and cultures appear to be small, although of course, in every population group, there are people whose vulnerabi- lity is acute or whose risk taking is high. In the vast majority of these cases, explanations and interventions focused at the level of the individual are unlikely to be helpful in the long term as the determinants lie way beyond individual, commu-nity or even national control.

A critical question to ask is whether differences in behaviour can be shown to relate to differences in HIV prevalence at population level.

The multicentre study carried out in four sub-Saharan African cities (Carael & Holmes, 2001, pp. S1–S2) showed that “most parameters of risky sexual behaviour (such as contact with sex workers, lifetime number of sexual partners,
rate of acquisition of new partners and lack of condom use) were not consistently more common in the high HIV prevalence sites than in the relatively low prevalence sites. Similarly, age differences between sexual partners and the frequency of concurrent partnerships were not consistently ‘higher’ in the high than in the low prevalence sites.

**Some shared oppressions**

Feminist analysis, rooted in social justice, recognises oppression of women in poor countries within the context of the oppression of entire communities of men, women and children, **none of whom have any meaningful control over their lives.** As Greer (1999, p. 6) reiterated recently, “If equality means entitlement to an equal share of the profits of economic tyranny, it is irreconcilable with liberation”.

Economic tyranny is responsible for the destruction of local production and community self-sufficiency, the forced migration of labour and the break up of families. And AIDS is the price that is paid by migrant workers, miners, long distance truck drivers, their own wives, girlfriends, occasional partners — and all of these people’s children.

The emergency response is condoms and IEC. The long term response is local and national capacity to meet basic needs — at the very least in terms of food security and sovereign nation states, in control of their own economies so that people and communities may reliably provide for themselves through democratic process.

**Overall health status and susceptibility of populations to HIV infection**

The thesis to be proved in relation to the ‘unexplained remaining variation’ is that HIV negative people whose immune systems are weakened by poor nutrition and constantly challenged by a variety of infections, are more vulnerable to HIV infection and that HIV positive people in the same condition, are more infectious.

The related thesis — that those already infected with HIV (but not yet ill) progress more rapidly to AIDS if they have a poor diet and no access to clean water and sanitation — has been more readily accepted and examined but in terms of action, is still neglected. HIV positive mothers often ask only for an adequate diet in order to survive a little longer and nurture their children to adolescence (see for example Page, 2000).

A further thesis to be examined is that co-infection with other pathogenic agents increases susceptibility of HIV negative people to HIV infection, and infectiousness (through high viremia for example) of HIV positive people to others. In other words, high levels of co-infection in the population translate into both increased susceptibility and increased infectiousness and therefore high transmission rates.

The implications of this understanding of population-wide susceptibility to infection for international and national responses to AIDS would be enormous — if the evidence were examined, further researched and made widely known. The reasons why it has not been, are as important today in shifting perspectives as the evidence which should be brought to light.

It is argued that the overwhelming power of vested interests confines both the research agenda and strategies of the international AIDS community to the sphere of the individual in order that structural, economic and political inequalities driving the epidemic neither be brought to light nor questioned.

Only two aspects of biological vulnerability appear to have received serious attention. Firstly, the biological vulnerability of women and especially very young women, to all STIs including HIV (Bolan, Ehrhardt & Wasserheit, 1999) and secondly, sexually transmitted infections themselves which are known to substantially increase transmission of HIV infection (Laga, Diallo & Buve, 1994).

The first of these has been well understood (though by no means resolved) and a range of sensible interventions has been devised and promoted — from individual protection, negotiation skills, through community sensitisation to harmful cultural practices including early and unequal sexual relations, to social and economic empowerment through increased educational and employment opportunities (KIT/SAAIIDS/WHO, 1995).

As argued above, however, there are obstacles to women’s (and people’s) empowerment which transcend national boundaries — globalisation of corporate capitalism has deepened gender inequalities and accelerated the feminisation of poverty (Fall, 1999). Broad social movements depend to a large extent on strong democratic institutions within a sovereign and solvent state and functioning public services, notably education.

However, no-one (neither women nor men) can afford to postpone emergency action at individual and community level, while supporting the worldwide movement for social and economic justice which is, broadly speaking, the raison d’être of the ‘anti-globalisation’ movement today (Houtart & Polet, 1999; World Assembly of Social Movements, 2002).

All measures which immediately increase women’s control and provide them with means of protection should be widely implemented. The resources required for example to get promising microbicides into Phase III clinical trials and available to women must be mobilised (Heise, 2001). Massive public education campaigns explaining the fatal consequences of masculine heterosexual behaviour and attitudes, must be launched and sustained (UNAIDS, 2000a).

It should be noted, as an illustration of the critical importance of attention to structural causes, that microbicide research and development may have been seriously delayed because medical research is increasingly driven by profit rather than need, by corporate interest and the free market rather than by state (or internationally) directed research agendas supported by public finance. Of the 1 240 new drugs licensed between 1975 and 1996, only 13 dealt with the world’s killer diseases that primarily afflict people from tropical and poor countries (New Internationalist, 2001).

Microbicides may be desperately needed but they are not seen as profitable.

**STI prevention and control — an exemplary approach to co-infection**

Prevention and control of STIs is a declared key strategy in all national AIDS programmes (Holmes, DeLay & Cohen, 1996) and is remarkable as the only one which addresses
population-wide, host factors of vulnerability to HIV infection. In other words it recognises that existing epidemics of STIs (neglected until the advent of AIDS) are factors which increase population susceptibility to HIV infection. (See Fleming and Wasserheit, 1999, for estimates of increased risk of HIV transmission for various STIs.)

The microbiological mechanisms which increase HIV transmission have been well researched. The extent to which this critical strategy is actually implemented in countries is unclear.

The fact that the modes of transmission are the same for STIs as for HIV — both are blood borne diseases which can be transmitted sexually — has meant that the focus on individual behaviour and on individual agency can go unchallenged.

This would not be the case if the co-infection to be prevented and controlled, as a factor of susceptibility to HIV infection, were parasitosis or enteritis.

Tuberculosis as a co-infection is a special case. It has received attention but almost exclusively in terms of increased risk among HIV infected people of development of active TB. The influence of TB on progression of HIV-related illness in people who are already dually infected is sometimes mentioned but increased susceptibility to HIV infection of people already infected with TB (latent or active) and increased (HIV) infectiousness to others of dually infected people, are not (see for example Rojanapithayakorn & Narain, 1999).

Reducing TB prevalence: same reasons for failure

Furthermore, the failure to reduce tuberculosis prevalence which is a completely curable disease and the leading cause of young adult deaths in much of the world (Farmer, 1999) can be understood in the same terms as the failure to reduce prevalence of HIV.

The role of poverty and inequality has been minimised and the degree to which people exercise control over their lives and circumstances has been exaggerated.

Individuals have been blamed for treatment failure (which as Farmer (1999) observes, should perhaps be seen as failure to treat) because they cannot adhere to the regimen or complete treatment. But the structural, economic and social obstacles which prevent them from 'complying' (or even accessing health care when and if this is available) — are ignored in favour of explanations in terms of patient shortcomings.

Superficial cost effectiveness analyses have led to policy decisions not to treat multidrug-resistant tuberculosis in poor countries — despite the fact that "HIV will bring many millions of cases of reactivation tuberculosis, many of which may be resistant to all first line and many second line drugs" (Farmer, 1999, p. 207).

The de facto ‘decision’, taken on the grounds of expense, for so many years, not to treat HIV-infected people in poor countries with antiretroviral (ARV) combinations — which significantly reduce viral load and therefore, in all probability, population transmission — may prove be a similar costly mistake — as well as a moral disgrace.

In addition to costs, it is argued that individuals will mistakenly believe they are completely safe and will 'start to take risks'. This is a counselling issue to be addressed by the prescribing physician. It should not override HIV-positive people's right to extra years of life nor the public health consideration of reducing high rates of transmission in the population.

This is not to suggest that ARVs are either the answer or the first priority. Clearly, in situations of extreme deprivation, the basic necessities of life, including simple and cheap treatments (for example antibiotics and painkillers), will be considered first.

True primary prevention

Curiously, research on all the various biological factors which might increase susceptibility to HIV in uninfected people, has centred almost exclusively on progression to AIDS in HIV positive people or on drug interactions when treating both infections — in other words 'after the event'.

If research were to focus rather on 'before the event' susceptibility to HIV infection, a range of factors contributing to immune function would be thoroughly investigated and would form the basis for primary prevention.

Prevention strategies designed to increase population resistance to disease irrespective of individual behaviour to protect against exposure to the virus would be more 'primary' than condoms or safer sex.

Fully twenty years after the first cases of AIDS were described, Carael and Holmes (2001, p. S2) report that the multicentre study of factors determining different prevalences of HIV in sub-Saharan Africa "is the first to examine and demonstrate at population levels the prominent role of factors that appear to enhance HIV transmission in explaining high HIV prevalence". If this study was indeed the first of its kind, it is evidence of astounding neglect.

Plausible explanations in terms of factors unrelated to individual behaviour

At least three broad areas of research would appear to be important in the search for plausible explanations for the remaining unexplained variation.

- Viral characteristics and host factors
- Under-nutrition, malnutrition and specific nutritional deficiencies
- Co-infection, (microbial, parasitical, viral) and its effect on immune activity and response, and on HIV viremia and replication.

It is worth mentioning here also that the role of iatrogenic transmission of HIV in developing countries may have been neglected by the International AIDS Community. Gisselquist, Rothenberg, Potterat and Drucker (2002) draw attention to unexplained high rates of incidence in antenatal and post-partum periods (indicating medical transmission), the many HIV-positive children with HIV-negative mothers, and the non-trivial rates of HIV in sexually inexperienced adults. They suggest a pivotal role for unsafe injection (common in developing countries) in the global AIDS catastrophe.

The first broad area — viral characteristics and host factors — is of great interest but is beyond the scope of this paper which is primarily concerned with factors of vulnerability relating to poverty. Brief summaries of current wisdom are provided below.
A small selection of promising lines of enquiry in the second two areas — nutrition and co-infection — which are largely determined by poverty and powerlessness, are presented after the summaries of viral characteristics and host factors. It is argued that little of this research is directed towards investigating susceptibility to HIV infection and that almost none of it is translated into action. Global and national AIDS strategies would be dramatically different if they were.

**Viral characteristics**

The possibility that HIV subtypes might influence both transmissibility and pathogenicity has biological plausibility and has been investigated.

A study in Thailand (Soto-Ramirez et al., 1996) seemed to show that subtype E (as it was then known) was much more transmissible than subtype B which would have partly explained the enormous variation between developing and developed country prevalence. The findings were not substantiated. Studies of per-sex-act transmission probabilities have suggested lower transmission rates for subtype B than non-subtype B and recent studies in Tanzania have suggested maternal subtype may play a role in vertical transmission.

However, a consistent subtype-associated difference in transmissibility has yet to be proven. It appears that *subtype alone is unlikely to be the main factor* in viral transmissibility. Lack of such evidence does not preclude an association. Current biological knowledge may not be adequate to elucidate it and many more studies will be required utilising epidemiological, molecular, immunological and statistical methods in areas where multiple subtypes co-circulate.

**Host factors**

The existence of long term non-progressors (people who have been infected for many years but have not developed HIV-related illnesses or AIDS) and exposed yet uninfected people (those who are known to have been exposed to infection many times and yet have not become HIV-positive) suggests that both natural and acquired immunity to HIV exist. The interaction of complex host and viral factors may determine not only progression to disease once infected but also the risk for initial HIV acquisition.

Current evidence suggests an important role of cytotoxic T cells and T helper cells in controlling viremia, slowing progression and perhaps in preventing establishment of infection. The role of humoral and mucosal immunity in preventing transmission and slowing disease progression remains unclear.

Genetic host factors, such as inheritance of mutant chemokine receptors or ligands may be important in susceptibility to infection (and subsequent clinical course). The discovery that chemokine receptors are used by HIV as coreceptors for cellular entry enormously increased our understanding of HIV pathogenesis. The interest lies in the fact that certain *genetic mutations may have protective properties* (against HIV infection) and the frequency of the mutation may vary between population groups.

The chemokines are a subset of the broader, complex network of cytokines which are also of interest as they can be stimulatory or inhibitory or both, and help determine the balance of HIV replication within the host.

The findings from these areas of research are being applied to therapeutic strategies and to the development of vaccines. They indicate however, that host factors, unrelated to any kind of individual behaviour, may play a role in transmissibility and infectiousness of HIV.

**Nutritionally acquired immune deficiency syndrome?**

There is no shortage of evidence on the adverse, even devastating effects of malnutrition, under-nutrition and specific nutritional deficiencies on immune function and therefore presumably, susceptibility to infection and capacity to cope, once infected.

- Nutrition and nutritional status have profound effects on immune function and resistance to infection. Nutrients enhance or depress immune function depending on the nutrient and the level of its intake (Harbige, 1996).
- Protein energy malnutrition and/or deficiencies of single nutrients generally lead to atrophy of lymphoid tissues and dysfunctions of cell mediated immunity. Deficiencies of single nutrients can impair production of key proteins (Beisel, 1996).
- Deficiencies in essential micronutrients compromise immune status and increase susceptibility to and severity of infectious diseases *especially of viral origin*. Malvy (1999) provides several examples to illustrate the relationship between tropical viral infection and micronutrients including vitamin A, selenium and various other antioxidants.
- The essential role vitamin A plays in infection and the maintenance of integrity of mucosal surfaces has long been known. Vitamin E and other anti-oxidants increase the number of CD4+ cells. Primary and secondary antibody responses are reduced in zinc deficiency (Baum, Shor-Posner & Campa, 2000).
- Examining the immune system at the cellular level highlights the role of malnutrition and parasitosis in vulnerability to specific diseases, *in particular STDs*. Vitamin A for example, is important in epithelial integrity, playing an important role in protecting from STDs, particularly of the ulcerative type, that facilitate HIV transmission (Stillwaggon, 2000).
- In relation to HIV infection, there is evidence that adequate nutritional status may reduce vertical transmission by affecting several maternal or fetal/child risk factors for transmission including enhancing systemic immune function in the mother of fetus/child, reducing viral load or the risk of viral shedding in either lower genital secretions or breast milk, and maintaining the fetal/child gastrointestinal integrity (Fawzi, 2000).

It can reasonably be assumed that the factors mentioned above (immune function, viral load, viral shedding and integrity of mucosal surfaces) which operate during vertical transmission, also operate during sexual transmission but there appears to be little research on this and certainly no translation of the evidence into strategies for primary prevention.

The term nutritionally acquired immune deficiency syndrome (NAIDS) is applied to immunological dysfunction.
associated with malnutrition in infants and small children. Is it unreasonable to suppose that a similar mechanism may operate in adolescents and adults and may be worth investigating and even — as a precautionary principle — acting on?

As a factor in disease progression, malnutrition is acknowledged and nutritional supplementation is recommended as part of standard care of HIV infected people. However, as a factor in host susceptibility to HIV infection, inadequate nutrition would appear to be a critical research question with enormous implications for primary prevention but it seems to have received little attention.

The average African household is caught in a poverty cycle of low food production, low income, poor health, malnutrition, poor environmental sanitation and infectious disease (Akinyele, 1997). Food security must be made a priority strategy by the international AIDS and health community to reduce susceptibility to all infections including perhaps HIV.

As argued in the next section, primary prevention of HIV infection may be only one part of this strategy. The other part is primary prevention of TB, parasitic infection, malaria and many other infections which themselves may increase vulnerability of HIV negative people to HIV infection and infectivity of dually infected HIV positive people.

**Co-infections**

As with research on nutrition, research on the biology of co-infection (bacterial, viral, parasitical) and its impact on immune function seems to have focused on people who are already infected with HIV rather than on those who are as yet, uninfected.

*Keeping HIV-negative people uninfected through control of other infections* (not just STIs) might become a second key strategy (with food security) of primary prevention of AIDS particularly in poor countries where these diseases are endemic, if the relationships proved significant.

The evidence required to justify such a strategy would have to demonstrate that in populations chronically infected with the diseases of poverty — in particular, parasitic infections, tuberculosis, leishmaniasis etc, transmission of HIV infection is extremely efficient; uninfected people are more susceptible to HIV infection and infected people are more infectious. The result is high population transmission rates.

**Examples of research on co-infection and increased susceptibility/infectiousness:**

- **Helminth infections** affect over a quarter of the world’s population (Chan, 1997) (overwhelmingly in developing countries) and cause widespread immune activation and dysregulation.
- Immune activation caused by endemic infections, particularly helminth infections, make the host more susceptible to HIV infection and less able to cope with it once infected (Bentwich, Kalinkovich & Weisman, 1995). Bentwich, Kalinkovich, Weisman, Borkow, Beyers & Beyers (1999) further hypothesise that helminth infections impair the host’s immune response to both HIV and TB and that eradication of helminth infections might have a major impact on both HIV and TB in the developing world.
- Wolday, Akuffo, Demissie & Britton (1999) showed that *Leishmania* upregulates HIV replication in latently infected cells through cellular immune activation mechanisms, as evidenced by an *increase in plasma viral load* in HIV co-infected patients. The fact that both pathogens (leishmania and HIV) can infect and replicate in a common cell target (the macrophage) — in addition to their influence on the other arms of the immune system — has important bidirectional implications.
- In a review of the immunopathogenic mechanisms of the interaction between Leishmania and HIV, Wolday, Berhe, Akuffo and Britton (1999) hypothesised that *Leishmania* derived antigens might directly activate HIV-1 replication in a non-specific manner.
- Control of viremia in early HIV infection by CD8+ cells is thought to be an important factor for susceptibility to HIV infection and clinical course of disease. It has been shown that cytotoxic T cell activity is depressed in patients with visceral leishmaniasis (Cenini, Berhe, Hailu, McGinness & Frommel, 1993).
- Similar mechanisms have been described for *malaria-induced HIV activation* in CD4+ T cells suggesting that T cell activation resulting from exposure to common pathogenic stimuli could prove to be an important determinant of virus replication (Xiao, Owen, Rudolph, Lal & Lal, 1998). Malaria infection plays a very important role in immune suppression and is the single most important factor in iron deficiency anaemia in endemic zones.
- **Imbalances between Th1 and Th2 cells** (which protect against pathogens that are removed primarily through cell mediated immunity and those removed primarily through humoral mechanisms, respectively) seem to play an important role. Individuals with a predominant Th1 profile may be protected against HIV, while those with a predominant Th2 profile may be susceptible to HIV infection, if exposed. Leishmania tends to depress activity of Th1 and/or induce activity of Th2 cells (Reiner & Locksley, 1993). Individuals in Africa and South East Asia have a dominant pre-existent Th2 immune profile due to persistent helminthic parasitic infections which may undermine any Th1 response (required to fight off HIV infection). (Ayash-Rashkovsky, Weisman, Zlotnikov, Raz, Bentwich, & Borkow, 2001)
- Gopinath, Ostrowski, Justement, Fauci & Nutman (2000) showed that *filarial infections* increase susceptibility to HIV in peripheral blood mononuclear cells in vitro and concluded that people with filarial infections may have enhanced susceptibility to HIV infection mediated by an undetermined mechanism.
- Toossi et al. (2001) investigated interaction of the host with HIV 1 during active *tuberculosis* at sites of MTB infection and concluded that the mechanisms observed may contribute to enhanced viral burden and dissemination during TB infection. Morris, Cilliers, Bredell, Phoswa and Martin (2001) explored the biological properties of HIV 1 isolates from patients with active TB in relation to activation of the immune system and increased HIV expression. Sanduzzi, Frazier and Mariani (2001) reviewed data to clarify possible mechanisms through which TB results in activation of T cells and macrophages that may harbour latent HIV.
- Finally, a decade ago, in an intriguing alternative interpretation of cause and effect, Krvavac (1992) elaborated a
concept of AIDS pathogenesis in which he hypothesised that widespread parasitosis with *trichomonal infections* (a very common sexually transmitted parasitical infection) induces immunodepression of human beings. According to this hypothesis, all other agents, including viruses act only as opportunists.

This is really the kernel of the unexplained remaining variation. All the diseases of poverty including HIV/AIDS can be seen as opportunistic infections — the opportunity being poverty. This is not exactly a novel hypothesis — just a restatement of Pasteur’s dictum that ‘the microbe is nothing; the terrain everything’.

**Back to basic needs**

The ink had hardly dried on the Alma Ata documents in 1978 when the principles of primary health care (PHC) — which explicitly recognised structural inequalities and macroeconomic factors as determinants of poverty and therefore of population health status — started to be undermined (Werner & Sanders, 1997).

The Declaration of Alma Ata (International Conference on Primary Health Care, 1978) was revolutionary in that it explicitly stated the need for a comprehensive health strategy that not only provided health services but also addressed the underlying social, economic and political causes of poor health.

It called for economic and social development based on a New International Economic Order (proposed by the Group of 77 and non-aligned movement in 1975).

**The Declaration of Alma Ata called for:**
- Education concerning prevailing health problems
- Promotion of food supply and proper nutrition
- An adequate supply of safe water and basic sanitation
- Maternal and child healthcare, including family planning
- Immunisation against the major infectious diseases
- Prevention and control of locally endemic diseases
- Appropriate treatment of common diseases and injuries
- Provision of essential drugs.

Each element of the above prescription — to meet basic needs — would have contributed to controlling the spread of AIDS, TB, malaria, parasitic infection and all the diseases of poverty.

Because Alma Ata was revolutionary and threatened a certain *status quo*, it was rapidly abandoned. As Werner and Sanders (1997) observe, a selective, politically sanitised (and thus unthreatening) version of PHC *without the emphasis on social and economic development*, was reduced to a few high priority technological interventions determined by international health ‘experts’ rather than communities.

The only ‘progress’ possible in public health today and in the fight against AIDS is a return to the wisdom of Alma Ata — armed at the turn of the century with twenty more years’ evidence of the negative health effects of savage free market neoliberalism (Douthwaite, 1999). The ‘triumph’ of capitalism in the Russian Federation, for example, has been accompanied by collapse of health services and spectacular increases in morbidity and mortality.

The threat of Health for All to the *status quo* of the international economic order is nothing compared to the threat to the earth and all its peoples of structural violence — poverty, powerlessness, chaos and catastrophe — whether manifested in hunger, terror, environmental disaster or epidemics of disease such as TB or AIDS.

**Macroeconomic factors influencing health in the era of ‘globalisation’**

By and large, the international AIDS community has made the individual its unit of analysis and its focus for intervention, despite 150 years of solid experience illustrating the futility of this approach in addressing public health problems.

Furthermore, as discussed below in relation to self determination of nation states, individuals and their communities (in both rich and poor countries) have rarely been further removed from the ‘corridors of power’ and from self agency than in today’s globalised world!

The term ‘globalisation’ almost always refers to the penetration into far corners of the world of a specific economic doctrine — neoliberalism, an unfettered ‘free’ market and blind faith in ‘growth’. It does not refer to the spread, for example, of worker, environmental, social security or human rights protection, which are clearly elements to be considered in the promotion and protection of health and the prevention of AIDS.

In the era of ‘globalisation’ a number of macroeconomic factors have assumed enormous importance in the distribution of wealth and power between and within nations, and in the degree to which nation states exercise sovereignty including the management and prioritisation of internal affairs such as health and education.

**Macroeconomic and political factors to be considered in relation to health especially in developing countries**
- The value on the world market of a country’s major commodities for export
- The level of its external debt
- The level of food security it has achieved (or been allowed to retain),
- The strength of its public sector and especially the budget share for health and education
- Disparities in wealth, income and power of its own population (gross inequalities have been shown to damage overall health status) (Chapter 14, Werner & Sanders, 1997)
- The degree of democratic control exercised by its people, without let or hindrance from external powers (for example the support of elites/national leaders favourable to economic interests of external powers)
- The extent of its self determination/sovereignty; its degree of dependence on global financial factors/ powerful nations outside its control
- Its involvement in wars and low level conflict, and the security of its most vulnerable populations often displaced by violence or forced to migrate by the undermining of local productive capacity and the destruction of traditional livelihoods
It is not that the AIDS community does not talk about poverty. On the contrary, it is the most fashionable subject at the moment\textsuperscript{28}. Poverty reduction (rather than eradication) is on everyone’s lips in the alliance of WB/IMF/WTO/G8, the UN agencies dealing with AIDS, government aid agencies, and the ‘charitable’ foundations such as Ford, Rockefeller and now Bill and Melinda Gates.

In sanctimonious tones, they lament the persistence of poverty but in a perverse reversal of logic, they advocate for massive attacks on a few killer diseases (malaria, TB and AIDS) in order to ‘create prosperity’ and for investments in health care in order to ‘allow development’ (WHO, 2000).

The international financial institutions are dominated by a few powerful nations (in particular the USA with the Federal Reserve and Treasury) — themselves representing the interests of their transnational corporations. The alliance referred to above largely determines policy and strategy of the international health community and is devoted to the ‘Washington Consensus’ on neoliberal economics.

The subject is vast and cannot be dealt with here. Excellent overviews are provided in Amin (1997), Chomsky (1999) and CETRI (2001). In summary the ‘consensus’ is imposed globally through monopoly of five critical areas: technology, worldwide financial markets, the planet’s natural resources, media and communications, and weapons of mass destruction. It is imposed on poor countries through debt, exploitative terms of trade, brute strength (as last resort or simple threat)\textsuperscript{27} and structural adjustment programmes which are the cause of brutal and massive impoverishment of popular majorities in the South and East. (International People’s Tribunal to Judge the G7, Tokyo, 1993).

The result of the ‘consensus’ is a net transfer of resources from South to North — an arrangement which, unsurprisingly, the great powers seem to wish to make ‘sustainable’!

For example, the stated aim of the Heavily Indebted Poor Countries (HIPC) initiative is to “bring down debtor countries’ external debt to sustainable levels” (UNAIDS/World Bank, 2001, p. 4). As a long term, easy and reliable supply of funds, debt is far too valuable to the architects of the Washington consensus to be cancelled; it must be made sustainable!

**Trillions through a fair economic order or millions through aid/charity?**

There is not only a reversal of logic but there is a striking disproportion in these health initiatives which invariably rely on international aid. Firstly, such aid, on average brings about one and half times more funds back to ‘donor’ countries than the sums ‘donated’. Secondly, the sums are pitiful (millions) compared to the sums which would be released in a fair financial system (billions and trillions).

For example, it was estimated that a minimum of US$ 7–10 billion was required for the Global Fund for AIDS, TB and malaria (Meeting on Access to Care for PLHA, 2001). The princely sum of US$1.6 billion appears to have been committed so far with only US$700 million available in 2002. According to a recent report the United States of America has pledged US$200 million for 2003 (Global AIDS Alliance, 2002).

- Its natural resources, the degree of national control over these, and the extent to which the fruits of its exploitation benefit the people
- Its vulnerability to natural disasters.

In today’s ‘globalised’ world, any examination of the relationship between poverty and health has to include both national and, above all, international financial mechanisms and structures and the impact of these on all aspects of society.

Much is made of international travel and the spread of microbes as the link between globalisation and disease but by far the most significant link is the effect of the former on national capacity to provide for basic needs. Corporate-led globalisation has brought countries to their knees — Argentina, a country with immense riches, is only the most recent example (Kalfon, 2002). States without sovereign power, forced to open up their economies to foreign investment and to trade under grossly unequal conditions, stripped of their assets and reduced to bonded labour for the production of cheap raw materials for export to rich countries, cannot provide for the needs of their population — even if they so wish. They are bankrupt and dangerously ripe for further exploitation.

**Self determination of nation states**

The current crisis in democracy must also be understood and resolved if nation states are to take responsibility for meeting the basic needs of their populations, in health and other areas. Ramonet (1997, p. 1) has observed that “financial globalisation is a law unto itself and it has established a separate supranational state with its own administrative apparatus, its own spheres of influence, its own means of action; that is to say the International Monetary Fund (IMF), the World Bank (WB), the Organisation for Economic Cooperation and Development and the World Trade Organisation (WTO). This artificial world state is a power with no base in society. It is answerable instead to the financial markets and the mammoth business undertakings that are its masters. The result is that real states in the real world are becoming societies with no power base.”

In the same vein, Chossudowsky (1997, p. 25) reports that “the state system in the West is in crisis as a result of its ambivalent relationship to private economic and financial concerns. Under these conditions, the practice of democracy in the developed countries has become a ritual. No policy alternative is offered to the electorate. As in a one party state, the results of the ballot have virtually no impact on the actual conduct of state economic and social policy. In turn the state under the neoliberal policy agenda has become increasingly repressive in curbing the democratic rights of its citizens”. For a review of the links between the promotion of ‘democracy’ and its links with global economic interest rather than with human rights see Evans (2001).

**Poverty and powerlessness are the original taboo subjects**

With the exception of some brave and outspoken NGOs\textsuperscript{25}, the international AIDS community steadfastly refuses to address poverty, powerlessness and inequality. As root causes of the AIDS pandemic and above all as the focus of action, these are taboo subjects.
By contrast, developing country debt — regarded by many as immoral, irresponsible, illegal and impossible — amounted to US$2,400 billion in 2001! Debt relief has turned out to be a cruel deception. Between 1996 — when the ‘Heavily Indebted Poor Countries Initiative’ started — and 1999, debt increased by 25%! Poor countries’ debt repayments are many times larger than the resources they can devote to health and education — and invariably eat up most of their export earnings (For a full review, see Toussaint, 1999).

Unfair terms of trade account for colossal losses to poor countries, particularly in Africa. Trade barriers in the North cost the economies of the South an estimated US$100 billion a year (Secretary General UN, 2001). Trade consists today, as it always has, of the exchange of expensive manufactured products from the centre for cheap primary products from the periphery (Amin, 1997). Many of the world’s poorest economies are forced by the Structural Adjustment Policies of the WB and IMF to export more and more ‘primary’ commodities (WTO, 2000). Gains and losses from trade liberalisation for 2002 are estimated at 141.8% (increase) for the high income countries and 2.6% (decrease) for African countries (Madeley, 1996). For a full review see New Internationalist (2001a) and Oxfam (2002).

Currency speculators gamble US$1.5 trillion daily. ATTAC (Action for a Tobin Tax to Assist the Citizen) which is now an international movement, proposes taxing these activities. At 0.25% this would earn US$250 billion a year — enough to provide food, basic health care and education to all the developing world. Experts have said there would be no particular difficulty in introducing this tax (Ul Haq, Kaul & Grunberg, 1996).

A fair economic system — not ‘aid’ nor charity — is required and desired so that sovereign states may be allowed — without exploitative interference — to provide for the basic needs of their own populations.

Blaming national leaders: another diversion

In an interesting variant on the exaggeration of individual agency, the international AIDS community has found another diversion — national leadership. This is now regularly cited as a key element in the success of a country’s response. But governments, especially in developing countries, are rarely in control of their own economies.

With the best will in the world, most national leaders in developing countries cannot insist on public services, food security, a basic needs approach or a strong state role.

These decisions are taken discreetly at meetings behind closed doors with a small group of visitors from the International Monetary Fund and the World Bank — without consultation with parliaments or any national, elected representatives.

Keet (Africa Trade Network, 2002) reports for example that “the IMF and its structural adjustment programmes and the rules of the WTO deprive Africa of all liberty to decide fiscal, monetary and economic policy”. Changari (2002) adds that ‘the IMF decides on all political and economic policy to be implemented, in the place of people and their elected representatives’.

Bello (2000) summarises the problem as follows: “The WTO and the IMF are highly centralised, highly accountable, highly non-transparent global institutions that seek to subjugate, control or harness vast swathes of global economic, social, political and environmental processes to the needs and interests of a global minority of states, elites and transnational corporations”.

Rarely mentioned either is the fact that powerful nations play a very prominent role in the placing and removing of leaders of developing countries and in the policies they are allowed to implement once in power. This is another aspect of the crisis in democracy. By and large, only those who can be relied on to promote the interests of the powerful nations and their multinational corporations will survive as leaders in developing nations.

Methods used to ensure placement in developing countries of leaders favourable to Northern interests include: military coups, low intensity warfare, bombing, terror, infiltration and repression of popular movements, assassination of democratically elected leaders, bribery of members of national elites, and military support to right wing dictatorships and their paramilitary forces — planned, directed and funded by powerful nations, usually the USA through the CIA (For full reviews of these activities see Blum, 1995; Pilger, 1999; Chomsky, 2000).

Those national leaders who fail to toe the line, who assert national sovereignty, let alone plead for a fair deal for their own people, will be punished in ways that really hurt — embargoes, further trade restrictions, or impossible terms of debt repayment — or they may have short lives — political or otherwise.

The UN agencies: time to bite the hand that feeds them?

It is the responsibility of international health authorities to identify the determinants of health (and disease) and to advocate for policy and action which will contribute most effectively to the goal of Health for All.

This is true even if some or most of the policy and action advocated lies outside the health sector and will be implemented or undertaken by other actors — ministries of public works, agriculture, trade or finance, or international agencies.

In particular, WHO and UNAIDS advocacy role should go well beyond the biomedical sphere. The Massive Effort for example — which targets the big three, TB, AIDS and malaria — is a joint effort of various UN agencies with the specific purpose of bringing a multisectoral perspective to a key health initiative. Macroeconomic factors determining the global creation and distribution of wealth should be its prime focus of attention and macroeconomic reform its first priority.

If food, water, sanitation, basic health care and housing are the quickest, cheapest, most effective ways of achieving health for all, then the international health community should be advocating this. The rich countries achieved a reasonable standard of health for their populations through public health measures such as these.

If these basic needs can only be met when countries’ national capacities are freed from the stranglehold of debt and unfair terms of trade and from the destabilising chaos of financial flows then they must recommend this. As Frank (2002, p. 28) reports: “a sea of cash sloshes from shore to
shore...$1.5 trillion daily round the world' generating continual instability which translates in poor countries into 'mounting debt, capital flight and currency collapse'.

We should not forget either that “thirty years ago, sub-Saharan Africa was self sufficient in basic food staples” (Madeley, 2000, p. 71). If national food security requires a degree of protectionism rather than unfettered free trade, it must be strongly advocated. There could be no clearer public health imperative.

If the obstacle to such advocacy is the hand that feeds the international AIDS community, then the time has come to bite it. That hand is the alliance of WB/IMF/WTO, the G8 — even occasionally the UN itself and the transnational corporations influencing their policies.

The WHO has undertaken to investigate, advocate and act on the links between poverty and health and a Commission on Macroeconomics and Health has been set up for this purpose. It is therefore essential that the more significant part of this two way relationship be properly investigated. Unfortunately, as indicated in the title of its report (Sachs, 2001): ‘Macroeconomics and health: investing in health for economic development’, the Commission focuses on the less significant part of this relationship.

Whilst poverty is a critical determinant of disease, health is not a critical determinant of poverty; it is an exacerbating factor in situations of deprivation. No amount of health delivered to a Haitian or Tanzanian today is going to provide her or him with prosperity tomorrow or the next day. It will allow her or him to survive where others die in rather precarious conditions — perhaps until the next bout of illness.

To those who continue to claim that ‘the poor will always be with us’ or that ‘there are too many of us with too few resources on this earth’, we must reply again that there has been an unprecedented creation of wealth over the past 20–30 years and that redistribution has not yet been tried. We must repeat the statistic that has been quoted ad nauseum: the richest 20% of the world’s people ‘share’ 82% of the world’s resources; the poorest 20% share 1.4% (UNDP, 1996).

Inequalities are accelerating fast. In 1960 the richest 20% had 30 times more income than the poorest 20% in 1995, they had 82 times more (Ramonet, 1998). This is not some unfortunate accident, nor is it an act of god. It is a structured process.

Poverty eradication not poverty alleviation should be the aim because redistribution is perfectly feasible. Freedom from poverty as a human right would bring in its train freedom from ill health, from exploitative labour, from displacement as a refugee, from sex work, from violence of many kinds including war — and from indignity.

**Foundations for an alternative AIDS strategy?**

The essential elements of an alternative approach to AIDS would be the removal of macroeconomic root causes of the diseases of poverty and the creation, in poor countries, of the conditions necessary for the public health improvements achieved between 50 and 100 years ago in the rich countries.

There will be no need to bite the hand that feeds it because ‘it’ will have no keeper. The beauty of a fair international economic order lies in the fact that nations, communities and families left to their own devices are quite capable of meeting their own basic needs. Removing the obstacles to self determination is the task to be accomplished.

The international AIDS community needs to ally itself with the tremendous movement for social and economic justice today. As a start it might wish to make immediate debt cancellation and the introduction of a Tobin-type tax, its funding source for the first few years, followed swiftly by the first steps towards fair trade, bringing trillions of dollars to public health efforts within the long promised new international economic order.

The strategy itself would be based on a pyramid of actions and interventions each building on the level below with macroeconomic reforms as the foundation, food security and the meeting of basic needs including primary health care as state responsibilities at the second level, IEC and community action next, building on a solid system of national social security, and finally, interventions directed towards the enabling of individual protective behaviour at the top — which is where it should be — as the flowering of human rights in the fertile terrain of social and economic justice. In short we need to take up where we left off thirty years ago and remind ourselves that ‘what the social world has made, the social world, armed with knowledge, can undo’.

**Notes**

1. See for example the conclusions of Van Griensven and Rezza (2001) in an overview of epidemiology and social issues: ‘Twenty years into the epidemic, we have not been able to halt the spread of HIV, particularly in developing countries’.

2. Invariably Senegal, Thailand and Uganda, (see for example WHO, 2000).

3. Far from benefiting from the global imposition of neoliberal doctrine, the 100 poorest countries of the world, which include most African nations, have suffered decreases in per capita income over the past 15 years (Speth, 1996, quoting UNDP figures). Africa’s share of world trade (which itself has increased by 30% since 1995) has declined from 8% to 2%; the share of the 49 poorest countries today is 0.4% (Africa Trade Network, 2002).

4. It is typically stated that ‘the virus is spread mainly by behaviours’ (IMPACT/FHI/UNAIDS, 1998) without further elaboration and with the understanding that behaviour change is the response. Less neutral terms are also employed: irresponsible, high risk or promiscuous behaviour. More coyly, we are reminded that it all comes down to activities taking place in the bedroom.

5. Specter in the New Yorker (2001) dispels any doubts. Unhampered by evidence, he asserts confidently that ‘Indian men, once married are more likely to remain faithful than men from many other cultures. In much of Africa, on the other hand, there is little stigma attached to sexual promiscuity.’

6. “The AIDS emergency and the desire to save lives lowered the level of ethical, theoretical and methodological self control of researchers” (Fassin, 1999, p. 49)

7. Piot and Timberlake (1998) reverse both logic and history when they claim that nineteenth century public health “recognised that the social, economic and political health of a community or nation is dependent on the health and human rights of its citizens”. It was of course the other way round.

8. Readers could be forgiven for thinking that poverty was invented by AIDS in the 1980s. “AIDS is condemning millions to misery and poverty” (UNAIDS/World Bank, 2001, p. 9). “AIDS creates and
result in a triple burden of ill health and a new kind of mortality crisis. Infectious and parasitic diseases spread unchecked, death rates attributable to TB approach those of cardiovascular disease; the incidence of HIV and AIDS also rockets...” (LeSar & Porter, 2001, pp. 72, 75).

19 Economic growth is related neither to ‘progress’ nor to improvements in quality of life (Douthwaite, 1999). Furthermore, a Washington research group (CEPR, 2000) has challenged UNDP’s claims of ‘thirty years of impressive growth’ trumpeted by the G8 at Genoa. Using the same data they have shown that between 1980 and 2000 there was a clear decline in progress. The poorest countries’ growth went from 1.9% annually to 0.5% a year, the middle income countries from 3.6% to just under 1% and even the rich countries also showed a slowdown. Thus even on its own terms, neoliberal economics has failed.

20 Such as Health Action International (HAI), People’s Health Assembly (PHA), Oxfam, Save the Children, Médecins sans Frontières (MSF) etc.

21 In grotesque bad faith, low income countries are now being instructed by the WB and the IMF to make ‘genuine’ efforts towards poverty reduction, in order to qualify for further assistance or debt relief (Hecht, Olusoji & Semini, 2002).

22 At the Ministerial Meeting of the WTO held in November 2001 in Doha, Qatar, the US and the EU were accused of playing Russian roulette with the global trading system. ‘In mounting huge pressure for their own agenda, they pushed the meetings to the brink of collapse. In the end the developing countries had no choice but to sign up. It was more acquiescence than consensus’ (Coates quoted in Timms, 2002, p. 68).

23 It is argued that responsibility for trade should be returned to its rightful place which is UNCTAD (United Nations Commission for Trade and Development) so that people rather than profit be at the centre of all negotiations.

24 The Dakar Conference on Debt in Africa held in 2000 called for immediate and unconditional debt cancellation and reimbursement of sums illegally recovered given that the debt has been paid many times over.

25 Susan George (1976) presented compelling arguments over 20 years ago for the abolition of international aid. The arguments today are even stronger as the dependency relationship has dramatically deepened.

26 The composition of the UN Security Council and its power of veto — used almost exclusively by the USA, and occasionally by its lackey the UK — (Chomsky, 2000, pp. 3–4) unfortunately, reflects the same global power imbalance.

27 At Carletonville, there is a community-led HIV programme in a South African gold mining community of about 200,000 people, including 70,000 migrant miners.

28 It is argued that responsibility for trade should be returned to its rightful place which is UNCTAD (United Nations Commission for Trade and Development) so that people rather than profit be at the centre of all negotiations.

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References


