Time to get beyond the sex act: Reflections on three decades of AIDS reductionism

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After 12 years at the head of UNAIDS, Dr. Peter Piot has left and a new Executive Director, Dr. Michel Sidibe, has been appointed. AIDS has killed 25 million people worldwide. It has stabilized at a high level in many of the worst affected countries where it has reduced life expectancy to levels not seen since the 1950s and it is spreading fast in newly vulnerable regions of the world. (UNAIDS, 2008) The pandemic is far from over and Dr. Sidibe faces a considerable challenge.

For 25 years, AIDS policy and strategy have been based on assumptions about differences in sexual behaviour and practices across the world. These assumptions are not only implausible but have been shown to be mistaken. Only a very small part of the huge variation in HIV prevalence between regions has been either explained or addressed – the part which might reasonably be attributed to differences in individual sexual behaviour. At the same time, various plausible explanations for which there is considerable evidence have been ignored¹.

Nearly three decades into the epidemic, it is time for UNAIDS, under a new Executive Director, to explore a broader perspective and to seek explanations for what we might call "the unexplained remaining variation." (Katz, 2002)

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Do variations in individual behaviours explain the HIV epidemic?

The United Nations programme on AIDS (UNAIDS)² was established in 1996 to lead a multisectoral and multidisciplinary response to the pandemic, which would emphasize its social and economic determinants. In turn, the World Health Organization was to focus its HIV/AIDS activities on biomedical and technical health issues.

From the start of the epidemic in the early 1980s, individual behaviour has been put forward, implicitly or explicitly, as the main explanatory model for understanding the epidemiology of HIV infection and in particular for explaining its rapid spread and high prevalence in sub-Saharan Africa. This has restricted prevention efforts to action at the individual level: promotion of safer sex, condom use, and information, education, and communication (IEC) campaigns.

The assumption that individual behaviour accounts for most of the variation in HIV prevalence – from between 15% and 28% in the worst affected countries to between 0.1% and 0.5% in many industrialized countries (UNAIDS, 2007) has gone largely unquestioned for nearly three decades. This is despite evidence from both WHO (Carael et al, 1995) and UNAIDS (Carael and Holmes, 2001) that sexual behaviour varies little between countries and regions (with large variations within communities) and that sexual practices do not have a clear relationship with HIV prevalence. What emerges from the literature with consistency is that multiple, mostly serial, casual and unprotected sex is common in Africa, Europe,

¹ As a general observation, the international AIDS community has been extraordinarily averse to alternative thinking, even in relation to the role of transmission of HIV in health care settings, which is not the subject of this text, but for which there appears to be very good evidence. (see for example Gisselquist 2008)

² The United Nations programme on AIDS, was originally co-sponsored by UNICEF, UNDP, UNFPA, UNESCO, WHO, and WB.

the USA and parts of Asia, with most men everywhere having more partners than most women. (KIT/SAfAIDS/WHO, 1995)

In a 2006 Lancet series on reproductive health, senior WHO staff member, Paul van Look, Director of Reproductive Health Research, acknowledged that "[t]here is a misperception that there is a great deal of promiscuity in Africa, which is one of the potential reasons for HIV/AIDS spreading so rapidly . . . But that view is not supported by the evidence." (Canadian Press, 2006) Dr van Look made this statement in relation to a study which showed that multiple partners and premarital sex, for example, were more commonly reported in industrialized than developing countries. (Wellings, 2006)

This is perhaps the single most important, most overdue conclusion in relation to the 30 year HIV/AIDS epidemic. Yet its implications appear to have been entirely ignored as has the notion that HIV infection – like all infections, bacterial, viral and parasitic – flourishes in the fertile terrain of compromised immune systems that are the inevitable result of miserable living conditions.

Population-wide vulnerability to HIV in terms of deficient immune systems has been neglected by both WHO and UNAIDS as a determinant of high levels of infection - in sharp contrast to well accepted public health approaches to other infectious diseases. Is this not the most significant "AIDS exceptionalism"? Poor nutrition and coinfection with the myriad other diseases of poverty including tuberculosis (Toossi, 2001), malaria (Abu-Raddad et al, 2006), leishmaniasis (Reiner and Lockslev, 1995), schistosomiasis (Bentwich et al, 2008), and other parasitic infections (Harms and Feldmeier, 2002) have been neglected (with the notable exception of sexually transmitted infections, see below) as root causes of susceptibility, infectiousness, and high population transmission rates. This neglect is not for want of evidence. There is an enormous literature on the immunology of co-infection and the immunological correlates of micronutrient deficiencies many of which have significant implications for prevention of HIV infection. (see Stillwaggon, 2006 for a summary)

A quintessential disease of poverty

Ninety per cent of all HIV infections are in developing countries, 70% of these are in sub-Saharan Africa, where 75% of the deaths have occurred. (UNAIDS, 2008) In industrialized countries, poor and marginalized communities are the most affected by the epidemic. It is important to bear these figures in mind because the assertion that AIDS is a disease of poverty has often been qualified as simplistic.

The social and economic determinants of the AIDS pandemic have never been addressed in their entirety either by UNAIDS or by WHO. Many will protest that the connections with poverty were recognised from the start. This in true, but in a curious reversal of logic, attention has focused almost exclusively on the economic impact of AIDS on communities (UNAIDS, 2006) rather than on *poverty as a determining factor of extreme susceptibility and infectiousness*.

Both UNAIDS and WHO acknowledge the importance of social and economic factors such as labour migration, various forms of exchange of sex for survival, gender power imbalances and population movements due to war and violence. (Wojcicki and Malala, 2001; Schoepf, 2004) However, the solutions proposed to these problems are almost always focused on the residual preventive action possible at the level of individual behaviour, rarely on the larger macroeconomic and political context determining social and economic vulnerability, and practically never on preventive interventions increase population-wide to resistance to infection – which is surely the raison *d'être* of public health.

UNAIDS (2000) observed 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 drugs related behaviour*" (my emphasis). This very narrow context still neglects

vulnerabilities determined by the environment and experienced by entire populations.

Biological vulnerability irrespective of individual sexual behaviour

Biological vulnerability suggests that HIVnegative people whose immune systems are weakened by poor nutrition and challenged by chronic coinfections are more vulnerable to HIV infection and that HIV-positive people in the same condition are more infectious. *Increased susceptibility* of the first group and *increased infectiousness* of the second group result in high population transmission rates.

With the exception of sexually transmitted infections (STIs), there has been a failure to consider biological factors which may enhance HIV transmission. It was established early on that in the presence of STIs, the risk of infection with HIV is significantly increased (Flemming and Wasserheit, 1992) and indeed control of STIs is a priority strategy. There is strong evidence that co-infection with non-sexually transmitted infections, such as those mentioned above, also increases susceptibility to HIV infection in seronegative people and infectiousness in seropositive people. (Bentwich et al, 2000)

As a factor in *disease progression*, malnutrition has always been acknowledged and nutritional supplementation is recommended as part of standard care for AIDS patients. There is no shortage of evidence on the adverse, even devastating, effects of malnutrition, undernutrition and specific nutritional deficiencies on immune function and in turn on susceptibility to infection and capacity to cope, once infected. 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 has received little attention.

In relation to both co-infection and under- and malnutrition, attention has focused on problems *after the event* rather than *before the event* (the event being initial HIV infection). But keeping HIV-negative people uninfected is a priority strategy. Primary prevention should not be limited to condom use and safer sex. It should include mass treatment (prevention, detection, control) of common co-infections (in particular parasitic) and local food production and food sovereignty respectively. These are valuable interventions in their own right and they are far easier and cheaper than treating HIV infection with antiretrovirals.

In exploring the 'unexplained remaining variation', a critical research question is per-sex act transmission rates for HIV in populations suffering multiple co-infections and under/malnutrition – a situation typical of many poor communities in Southern Africa and other high prevalence regions. In healthy European populations, the per-sex act transmission rate appears to be low (Downs and De Vicenzi, 1999) but something is clearly making the virus highly infectious elsewhere.

Gender diversions

The vulnerability of women (and the extreme vulnerability of young women) to HIV infection was recognized relatively early on and it is now well understood that this vulnerability is both physiological as well as socioeconomic and cultural. In terms of the latter, the AIDS community realized that prevention messages promoting monogamy and safer sex were mostly irrelevant to women as they have little or no control over their partners' sexual behaviour, including condom use.

But in a most unfortunate development, gender inequality has been put forward today as the root cause of the pandemic. (Rao Gupta, 2002, Lewis, 2004) Women in sub-Saharan Africa carry a risk of contracting HIV at a rate 500-1000 times 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.

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 sexual behaviour of African and European men? The answer, according to studies mentioned above, is: "hardly different at all."

How can it have escaped the notice of experts making this assertion that *men* in sub-Saharan Africa are several hundred times more vulnerable and oppressed than European, US American, or Australian *women* in this and almost all other respects? This apolitical gender debate – typical of what we might call neoliberal pseudo-feminism – ignores structural inequalities between countries, and has resulted merely in shifting the blame from all African people to all African men.

Gender inequality itself is embedded in the real root causes of high rates of HIV prevalence, namely, poverty and powerlessness of people of both sexes in many poor countries. Feminist analysis, rooted in social justice, recognizes 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) has noted, "If equality means entitlement to an equal share of the profits of economic tyranny, it is irreconcilable with liberation."

Social and economic determinants of health

Economic tyranny today consists of economic policy imposed on developing countries, with no democratic consultation, by the international financial institutions³ on behalf – and in the interests – of their controlling member states (USA, UK, and the rest of the G8) and their transnational corporations.

Enforced liberalization, deregulation, and privatization have resulted in the destruction of local agricultural production and community self sufficiency, the dismantling of public services, neocolonial exploitation of human and material resources, labour migration, the break up of families, and rural and urban destitution, as the Report of WHO's Commission on Social Determinants of Health (2008), among others, has shown. And AIDS is the price that is paid by farmers, migrant workers, miners, long distance truck drivers, their wives, girlfriends, occasional partners – and all of these people's children.

The emergency response is condoms and IEC. The long term response for a sustainable impact is local and national capacity to meet basic needs – at the very least in terms of food security and primary health care, with sovereign states, in control of their own economies so that people and communities may reliably provide for themselves.

A social justice and human rights based approach to AIDS

Food, water, sanitation, basic education, and health care, physical security – and decent work in non-exploitative employment useful to their own communities, in short emancipatory development – are a large part of the solution to AIDS in Africa as they are everywhere for all the diseases of poverty.

Making populations resistant to infection – which is what the rich countries did – is primary prevention, far more primary than condoms or safer sex. If controlling the pandemic requires land reform, protection of national production and resources, and rejection of free trade agreements, so that women and men can create and maintain decent lives for themselves in their own communities, that is what the international health community and indeed all the international organizations whose core business is the improvement of human conditions on earth, must recommend and support.

To those who claim that such matters lie outside the mandates of WHO and UNAIDS, let us remember that the above is nothing less than a return to the principles of the Alma Ata Declaration in which Health for All was predicated on a New International Economic $Order^4$.

In anticipation of the argument that these things are complex and even utopian, let us distinguish between what is complex and what is *not wanted by powerful minorities*. Current policies as Stillwaggon (2004, p.9) points out, are aimed at behaviours that we are least likely to affect. "Even

³ World Bank, International Monetary Fund and World Trade Organization

⁴ Note that in WHO's "revival" of Primary Health Care (see the World Health Report 2008), a new (fair, redistributive) international economic order is absent, as is any mention of health as a human right.

Liberation IEC

- 1. At the individual level, condoms and safer sex are our only protection. *For individual protection, ALWAYS use condoms and pass that message to everyone you know!*
- 2. Sexual behaviour is more or less the same everywhere but HIV/AIDS takes hold and spreads rapidly in populations suffering multiple deprivations including under- and malnutrition, chronic co-infection (and consequently, compromised immune function) and unsafe health care. *Reject victim blaming as racist, unscientific, and a diversion from effective action; confront the establishment with its own evidence!*
- 3. At the population level the domain of public health primary prevention is the provision of safe, health-enhancing conditions of life so that people's immune systems function optimally and provide the protection against infections for which they were designed. *Fight for social and economic justice and claim your rights including the Right to Health* (PHM/CETIM, 2007).

land reform is easier and more amenable to policy instruments than getting all the glue-sniffing 8 year olds in San Pedro Sula to use condoms with sex tourists or police officers looking for sexual payoffs. Many of the macroeconomic reforms such as control of financial flows, or a Tobin tax, and even a fair trade regime, are simple and could be implemented tomorrow with an immediate positive impact.

Liberation IEC

An alternative AIDS strategy will start with the essential information for the mobilization of people to insist on a solution which is comprehensive, rational, and based on scientific knowledge and public health experience.

A genuine human rights approach to AIDS

The international AIDS establishment has loudly trumpeted its commitment to respect for human

rights in the fight against AIDS to the point of deafening 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 stigmatizing. 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 US American) approach to human rights – one which steadfastly ignores *collective* social, economic, and cultural rights – among the five supposedly 'indivisible' human rights in favour of *individual* civil and political 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

General Comment No 14. (UNHCHR 2000)

- Point 4: ... the right to health embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions and a healthy environment.
- Point 5: ... The Committee recognizes the formidable structural and other obstacles resulting from international and other factors beyond the control of States that impede the full realization of article 12 (*of International Covenant on Economic and Social Rights, Ed*) in many States parties.

(1993) are practically never addressed. Discussion, still today, 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 inhumane and degrading treatment.

An alternative strategy will insist on achieving respect for the Right to Health through application of the principles clearly set out in General Comment No 14.

An Alternative Strategy for AIDS, in line with human rights principles and the Preamble of the People's Charter for Health will identify inequality, poverty, exploitation, violence, and injustice as root causes of the diseases of poverty including AIDS, and will hold accountable national governments and international organizations including health authorities to challenge powerful interests in the struggle to halt the AIDS pandemic.

References

Abu-Raddad LJ, Patnaik P, Kublin JG. Dual infection with HIV and malaria fuels the spread of both diseases in sub-Saharan Africa. *Science* 2006; 314 (5805): 1603-1606.

Bentwich, Z et al. Concurrent infections and HIV pathogenesis. *AIDS* 2000, 14: 2071-2081.

Bentwich Z et al. The helminth HIV connection: time to act. AIDS 22(13) 1611-1614, August 20,2008.

Canadian Press. Sexual behaviour myths challenged in new study. <u>www.cbc.ca/health/story/2006/11/</u> 01sexbehaviour.html (June 30, 2007)

Carael M, Cleland J, Deheneffe JC, Ferry B, Ingham R. Sexual behaviour in developing countries: implications for HIV control. *AIDS 1995*, 9(10) pp. 1171-1175.

Carael M, Holmes KK. Dynamics of HIV epidemics in sub Saharan Africa: introduction. *AIDS* 2001; 15: (suppl.4).

Downs, A.M. and De Vicenzi, I. Probability of heterosexual transmission of HIV: relationship to the number of unprotected sexual contacts. European Study Group of Heterosexual Transmission of HIV. *Journal of Acquure Immune Deficiecny Syndrome, Human Retrovirology*. 1996 April 1; 11 (4) 388-95. Essex, M. (2001) *No news yet on a vaccine for Africa?* Paper presented plenary session, 12th ICASA Ouagodougou, December.

Fleming D.T. and Wasserheit, J.N. (1999) From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sexually Transmitted Infections* 75, pp 3-17.

Gisselquist D. Denialism undermines AIDS prevention in sub-Saharan Africa. *International Journal of STD and AIDS*. 2008:19: 649-655.

Greer, G. (1999). *The Whole Woman*. London. Transworld Publishers.

Harms G, Feldmeier H. Review: HIV infection and tropical parasitic diseases – deleterious interactions in both directions? *Tropical Medicine and International Health* 2002; 7 (6): 479-488.

Katz A. AIDS, individual behaviour and the unexplained remaining variation. *African Journal of AIDS Research* 2002; 1: 125-142.

KIT/SAfAIDS/WHO. (1995) Facing the challenges of HIV/AIDS/STDs: a gender-based response. Geneva, WHO; Amsterdam, Royal Tropical Institute; Harare, Southern Africa AIDS Information Dissemination Service.

Lewis S. Gender inequality and AIDS. Plenary Address, 12th Retrovirus Conference, San Francisco, February 8, 2004.(<u>www.thebody.com/content/art13364.html</u>(accessed Jun 21, 2008)

People's Health Movement/Centre Europe Tiers Monde. La Santé pour Tous: Se réapproprier Alma Ata. Geneva PHM/CETIM, January 2007.

Rao Gupta, G. (2002) How men's power over women fuels the HIV epidemic. *British Medical Journal* 324, pp183-184.

Reiner SL, Locksley RM. The regulation of immunity to *leishmania major. Annu. Rev. Immunol.* 1995; 13: 151-177.

Schoepf, B. "AIDS in Africa: structure, agency and risk" in *HIV/AIDS in Africa. Beyond epidemiology* ed. Kalipeni, E. et al. Oxford, Blackwell, 2004 121-132

Stillwaggon E. *AIDS and the Ecology of Poverty*, Oxford University Press, Oxford, 2006.

Stillwaggon, E. *Critique of the behavioural paradigm: AIDS and the ecology of poverty.* International AIDS Economics Network Pre-Conference, Bangkok, July 2004. Toossi et al. Increased replication of HIV 1 at sites of mycobacterium tuberculosis infection :potential mechanisms of viral activation. *Journal of Acquired Immunodeficiency Syndrome* 28(1) pp 1-8.

UNAIDS. Report on the global HIV/AIDS epidemic: June 2000, UNAIDS, Geneva.

UNAIDS/World Health Organization. AIDS epidemic update: December 2006, UNAIDS/WHO, Geneva, 2006.

UNAIDS. Report on the global HIV/AIDS epidemic: June 2007, UNAIDS, Geneva.

UNAIDS. 2008 Report on the global AIDS epidemic. UNAIDS, Geneva, 2008.

UNHCHR. Substantive issues arising in the implementation of the international covenant on economic, social and cultural rights. General Comment 14 (2000).<u>www.unhchr.ch/tbs/doc.nsf/(symbol)/E.C.12.2000</u> .<u>4.En</u> (February 8, 2009)

(Wellings K, Collumbien M, Slaymaker E, Singh S, Hodges Z, Patel D, Bajos N. Sexual behaviour in context: a global perspective. *Lancet* 2006; 368: pp 1706-1728.

Wojcicki, M and Malala, J. Condom use, power and HIV/AIDS risk: sex workers bargain for survival in Hillbrow/Joubert Park/Berea, Johannesburg, *Social Science and Medicine* 2001; 53: 99-121.

World Health Organization/Commission on Social Determinants of Health. *Closing the gap in a generation: health equity through action on the social determinants of health.* WHO, Geneva 2008.



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