

PREVENTING AIDS:
A NEW PARADIGM FOR A NEW STRATEGY

THE ANXIETY OF KNOWLEDGE

Science builds on what is known, but assessing the epistemological status of our knowledge is still one of the most difficult tasks. What we think we know can stand in the way of knowing more. This is especially true, perhaps, in this time of AIDS, and with respect to sex. Knowledge about sex is hedged with many constraints, moral, linguistic, practical, social, and cultural. And because HIV is sexually transmitted, knowledge of AIDS is limited by the similar constraints, giving rise to new limits on language, knowledge and action: stigma, secrecy, disclosure, ‘coming out’, ‘disclosing one’s status’, the ethics of disclosure, the ethics of sexual research, and so on. These aspects of the AIDS epidemic are problems not just of knowledge, but of knowledge about the kinds and limits of knowledge. There is, in other words, an epistemological crisis. Words like ‘disclosure’ and ‘stigma’ have, in effect, been newly coined for this epidemic: their meanings today are so closely associated with AIDS and HIV that their previous usages and contexts (legal and religious, respectively) have been all but forgotten.

Claude Levi-Strauss pointed out that a ‘native theory’ of something is often very difficult to re-think because everyone already knows. This is especially true of sex, and is increasingly true of HIV prevention strategies and theories of how it came to be and how it might one day go away. ‘Conscious models which are usually known as “norms”,’ said Levi-Strauss,¹ ‘are by definition very poor [models of social realities] since they are not intended to explain the phenomena but to perpetuate them.’ Everyone, it seems, already ‘knows about sex’, and to develop new models of it has proven extremely difficult despite the apparent failure of many of the intervention methods based on such models. Similarly, strategies for HIV interventions have become almost fossilised around the ‘ABC’ approach. The notion of ‘abstinence,’ in particular, has been taken up into religious systems of self-justification and ideology that resist even the most robust scientific evidence that it does not work.

The issues surrounding the global epidemic of HIV and AIDS, then, are increasingly about knowledge, what counts as knowledge, and how knowledge might be applied. Prevention strategies aim to increase the knowledge that people have about the virus and its consequences despite the evidence that knowledge—especially knowledge about sex—does not necessarily influence sexual behaviour. We reason—often without evidence—that the more people know, the more they will seek to change their attitudes towards sexuality and the more they will adhere to safe sex practices. ARV treatment strategies rely on patients being sufficiently knowledgeable to motivate themselves to stick rigidly to the daily timetable of the daily treatment regimens.² Without this, the treatment runs the risk of producing more resistant strains of the virus in the body and in the population at large. Strategies aimed at getting people to test themselves voluntarily for the presence of the virus in their bodies are based the notion that knowledge of one’s ‘status’ will allow a person to adapt to it in ways that maximise their

¹ Levi-Strauss 1952: 321.

² Cameron 2005.

own health and that of others. Some intervention strategies have relied on what has come to be called ‘disclosure’—evidently based on the idea that knowledge of one’s status is at first necessarily secret—disclosure of a new and different state of being as the result of being host to the HIV virus. Consistent and honest disclosure would certainly help those concerned with public health to know the scale of the problem and help those who are infected or affected to deal knowledgeably with their own status.

The medical and biological sciences struggle valiantly against a growing tide of infection in order to increase their knowledge about a virus that is too small to see with ordinary microscopes, and whose very success (as a virus) relies on its protean and changeable nature that uniquely equips it to ride the sexual network. We believe that ultimately more complete knowledge of the chemistry and biology of the virus will enable us to destroy it, or at least to limit its damage. Political leaders in democracies build their strategies on what the public knows and believes about political issues that affect them. Citizens’ knowledge about HIV and AIDS is a critical part of any social or political strategy aimed at coping with its menace. Finally, production and management of knowledge about the epidemic itself has become a significant part of global health care and information systems, and plays in role today in most of the social science, medical, health care and public health disciplines. Vast databases are maintained by the UN, by governments, and by research institutes. Much of this is made available on the Internet and research continues to fill numbers of specialised AIDS journals as well as many other journals in many disciplines.

It seems that the more knowledge we have about it, the more anxious we become. One of my students in Johannesburg, Zodwa Radebe, who has worked in AIDS research and prevention, remarked to me once, ‘the more I learn about HIV and the more people I work with who are HIV positive, the less I seem to know; the more my understanding is shaken.’ Knowledge of AIDS is like knowledge of sex, then: it is anxious knowledge.

President Thabo Mbeki’s attitude towards AIDS is scarcely influenced by science—indeed, it has been anti-scientific—but many South Africans are sympathetic with it. His political ‘instinct’ tells him that people cannot easily be led in directions that they do not want to go. The majority of the South African population do not want to face the terrible facts any more than the President does. The anxiety about knowledge of AIDS comes in part from the political and cultural divisions about what kind of knowledge about AIDS should count, and how it should be used. Medical pluralism in South Africa has allowed a considerable range of therapeutic responses to AIDS. Traditional healers and even Minister of Health, Manto Tshababla-Msimang’s special diet and emphasis on good nutrition have helped some, it appears, while others have died. But ARVs do not cure AIDS, after all, and they do not work for everyone. The on-going debate about the legitimacy of science, though a disaster for prevention, has deep roots in southern African culture. These are symptoms of a pervasive anxiety of knowledge.

By the time HIV was discovered, Uganda already had a ‘native category’ for it and an established discourse. In Uganda, we have seen that HIV was already endemic south-western Uganda for some time before science identified a causative agent. This appears to have given Ugandans a head start in knowledge and allowed them to understand it as ‘normal illness’ It meant that they were able to ‘adopt’ the affliction as their own and deal with it honestly, with clear political leadership, within cultural familiar cultural frameworks, and with the use of science and medicine. The contrast between this and the politicised and adversarial response in South Africa is sharp and clear.

Paradoxically, however, knowledge of AIDS has not, for the most part, halted its advance, especially in South Africa. The central role that knowledge has assumed in the development of

epidemic—in charting its advance and impact, in finding and implementing ways to combat it, and, above all, in the knowledge of one’s own HIV ‘status’ and the decision to ‘disclose’ or to ‘deny’—has become as problematic as the disease itself. Today, HIV is as much a disease of knowledge as it is of the body.

In the case of all other medical conditions, knowledge has increased our capacity to treat and to deal with them to the extent that virtually every disease and condition is treatable. This is true of HIV infections and of AIDS, too, but medical knowledge alone has not been enough to turn the tide. Communication technology has also blossomed over the same period. Almost no one is beyond its reach. Multiple channels of public communication bathe nearly everyone in oceans of information every day. Perhaps in no other case has knowledge been mobilised so forcefully and at such cost as in the struggle against AIDS ... and with less effect.

It is now clear to science that more knowledge about HIV and AIDS does not lead to change in attitudes or sexual behaviour. It is increasingly apparent that knowledge about sex is part of complex, culturally elaborated codes of behaviour concerning gender, personal identity, community morality, status, prestige, family and household organisation, and much else besides, including politics and economics. While it is not enough simply to know more about HIV and AIDS, it is also clearly detrimental to personal and public health to know nothing at all, to know only a little, or to know the wrong things.



In considering the HIV/AIDS epidemic, we need to be strict about the domains of knowledge and the types of logic and argument that pertain to them.

On the one hand, we must be clear that the inexorable progress of the virus is a purely biological phenomenon, not a moral one. People are infected without regard to their moral status; viruses are not moral agents. In the case of flu, no one is blamed when the fever and chills start, and no one is blamed for the coughs and runny noses. Fortunately, we do not die from the ordinary kinds of flu, and this evidently lightens its moral loading. But even in the Great Flu Epidemic of 1918, moral evaluation was not a part of the diagnosis. This, unfortunately, is not the case with HIV infections. The virus is sexually transmitted, for most part, and sex is always beset by moral strictures. But the moral part of it has nothing to do with the actual biological processes involved in the epidemiology and biology of the virus.

On the other hand, we need to be strict in understanding that the sociology of sexuality is not biological. While desire for sexual contact, touch and love, are certainly biologically rooted and essential for our sense of well being and physical health, the ways in which this is achieved are highly variable. The existence of desire, we have learned, does not determine the shape of the institutions, stratagems, or behaviours that satisfy those desires, any more than the apparently biological capacity for language in humans determines what language any one of them will speak. The variety of ways in which the sexual impulse is expressed—or suppressed—is vast and apparently unlimited. Thus, we can not reason from biology to the sociology of sexuality. Nevertheless, when people make statements about ‘uncontrolled sex’, ‘promiscuity’ or ‘immorality’ being the cause of the HIV epidemic, they are often reasoning—if ‘reason’ is the right work—from the notion that sex is biological and, for some, uncontrollable.

To moralise about the biology of sex and epidemiology, or to biologise the sociology of it, are equally disastrous options. But we often do not know where the boundaries between sociology and biology might be ‘in fact’, or where they—morally, or politically, or philosophically speaking—should be.

The ‘ABC’ approach has been called a ‘social vaccine,’ thus medicalising a complex sociology. It is a suggestive metaphor, is a misapplication of medical approaches to what is in fact a complex sociological phenomenon. It attempts to apply a reductive and deductive methodology inappropriately to a domain that can best be approached ethnographically, historically, as a complex set of meanings and interactions. The reduction of this to a medical methodology which attempts to isolate single causes of ‘symptoms’ in a functionally closed system of the body does not allow us to adequately conceptualise the complex open systems of social and cultural life.



BEYOND ‘ABC’

Until now, the ‘ABC’ approach—or one or other of its components—has formed the basis for prevention strategies. These methods only attack the HIV transmission network indirectly.

It is increasingly clear that our effort to halt or even slow the progress of AIDS is failing. This is especially true in southern Africa, a region that has the largest number of people living with HIV in the world. This is not because people do not know what causes AIDS, that HIV is transmitted through sexual contact or that it is incurable and eventually fatal. Surveys show us that nearly 100% of people know this. The vast majority of southern Africans also know at least some ways to prevent it. Campaigns often seem feeble and misguided in South Africa, but surveys show us that almost no one is ignorant of AIDS, its causes and consequences. Why, then, has this knowledge failed to cause an effect?

In some categories and age groups in South Africa nearly one in two people is likely to be infected. Overall, the rate is much lower, but chances are one in ten, at best, that a new partner will be HIV positive. If the chances of contracting a fatal disease are so high, why do so many continue to have unprotected sex?

It may be true, of course, that education campaigns are having an effect, and that HIV prevalence would be worse if not for the fact that everyone is so knowledgeable. But this is scarcely adequate. In South Africa alone, HIV is still infecting an estimated 2000 people per day. Each day, too, 1000 people die of AIDS despite a much-delayed, but now functioning ‘roll out’ of antiretrovirals in government clinics across South Africa.

In fact, many people have changed their sexual behaviour, but even the changes that have occurred are not sufficient. Why?

To answer these questions requires a shift in perspective. Strangely, we must turn away from the obvious facts that sex provides personal pleasure, and that people desire fulfilment through passion, and that most people wish to have children.

Desire and pleasure do not cause AIDS, and do not transmit it. The moralising discourse that frequently accompanies AIDS education campaigns often makes it seem as if they do. Religious groups that advocate ‘abstinence’, for instance, often stress the importance of ‘controlling desire’, or ‘delaying pleasure’. This resonates strongly with the high value that religion—especially Judaism, Christianity and Islam—places on resisting temptation, self denial, and sacrifice. The virgin is the symbol of all of this, and the paragon of purity. Associated as it is with sexual excess and unbridled passion, AIDS appears to be custom made for recruitment to these religious sentiments. The Abrahamic religions, rooted in the Book of Genesis and the idea of the fall from grace, praise the denial of desire as the root of virtue. None of this is relevant to AIDS and its prevention. Excessive and inappropriate moralising may even hinder effective prevention.

The logic for abstinence is primarily religious, not epidemiological. Sexual desire and passion lead to sexual contact, but transmission of the virus only occurs if sex is part of a much larger network, and only under certain conditions. The high and rising birth rate in Uganda with falling or stable HIV prevalence, versus the low and falling total fertility rate with rising HIV prevalence in South Africa, demonstrates this. Appeals for abstinence are heeded primarily by those who are already inclined towards it for other reasons, usually religious. The Nelson Mandela 2005 AIDS survey in South Africa, for instance, reported that only 10% of youth who had never had sex said that they were abstaining because of fear of HIV or other STIs; most were just not ready or lacked a partner.³ While abstinence from sex protects absolutely against sexual infection, the abstinent also do not transmit sexual infections. The truly abstinent few, then, are largely irrelevant to the problem of HIV transmission. For the rest, abstinence is only temporary, and their limited removal from the sexual network—or delayed entry—has a negligible impact on the transmission of HIV. Money and effort spent on promotion of abstinence, even if and where it is effective, is therefore wasted.

The role of sex in procreation—making babies—is also largely irrelevant in the quest to control AIDS. The fact that fertility fell in South Africa while HIV advanced unchecked shows this truth conclusively. The two ‘side effects’ of unprotected sex—pregnancy and HIV (or other STI) infection—are apparently unrelated.

The knowledge people have about sex and its consequences does not necessarily translate into self-protective action. Is this merely fatalism? To a degree, the answer is yes. Many people do express the opinion that now that AIDS is so common, there is little they can do to prevent it.

But this points to an even stronger desire to engage in sex than we can account for through our ordinary theories of human behaviour. People are willing to risk their lives for it. Is it merely a biological drive that we can do little to control? The history of humanity gives us many examples of religious groups and cultures that have successfully imposed cultural or religious restrictions on sex. In some cases, such as the most puritanical sects of early Shakers in America, this has been so effective that the lack of sex caused them to die out entirely. Other sexually puritanical religious sects must constantly recruit new members to compensate for their inability to reproduce themselves. So, the answer to the question about whether sex is an uncontrollable biological drive is ‘no.’ It can be controlled by exceptionally strong cultural beliefs, especially religious beliefs, and by powerful policing of these. But such control is only desired, and possible, in small, strongly motivated groups of people. Apart from this, sex is far too important to the vast majority to be controlled in this way.

It may seem to some that the current epidemic must be caused by an over indulgence in unprotected sex. This seems unlikely. Judging from surveys on sexual behaviour, albeit limited and incomplete, South Africans do not appear to have any more sex than, say, Norwegians or Americans.⁴ Since pregnancy is the other main consequence of unprotected sex, if South Africans were having unprotected sex more than others then the birth rate would also be high. In fact, this is not the case. Thus it appears that the amount of unprotected sex South Africans engage in cannot be the reason for rising HIV. Why then is HIV so prevalent?



³ Shisana, Rehle, Simbayi, Parker, Zuma, Bhana, Connolly, Jooste, Pillay, et al. 2005: 70

⁴ Wellings, Collumbien, Slaymaker, Singh, Hodges, Patel & Bajos 2006.

ASKING THE RIGHT QUESTIONS

When science fails to answer questions such as these, it is often because the wrong questions have been asked. Since the beginning of the epidemic twenty years or so ago, research on AIDS, and approaches to combating it have focused on the behaviour and psychology of the individual. This is hardly surprising because sex occurs between individuals, not social structures. The obviousness of this fact has blinded nearly everyone to the larger picture.

Since sex has been seen as 'behaviour', preventive measures have been based on getting individuals to make isolated decisions. This has failed. We can begin to see this 'larger picture' when we understand that sex is in fact a relation between two or more people. In other words, it is a social relation. This allows us to see sex acts as building blocks of social structures, and to develop prevention strategies that aim at the social level at which HIV is transmitted across populations.

The 'ABC' approach to prevention relies on the individual's moral decisions. It was first formulated by a Catholic priest in Tanzania in the 1980s, and was popularised by Uganda. The UN agencies and USAID further promoted it as the Ugandan solution to HIV reduction. The first two terms, abstinence and being 'faithful', rely primarily on religious precepts. In its original formulation, the 'C' (condoms) was promoted only for those who could not abstain or be 'faithful': they were the last resort for moral failures. This 'original' interpretation is again gaining ground in Uganda where Evangelical Christianity, driven by wealthy American fundamentalists, is sweeping the nation. Whatever its effect, it neglects the even more fundamental social values of sex, and is not informed by an understanding of the importance of sexual networks. Where intervention by so-called faith-based organisations (FBOs) have been successful, it probably has more to do with the fact that they address cultural issues within the context of relevant social groupings and structures than with anything having to do with abstinence or even moral positions.

Sex is the basis for all primary social bonds in human society. The *relationships* formed by sex are probably more important than the momentary pleasure any individual derives from it, and it is this that drives our need for sex. In fact, primates, including humans, spend more time having sex than any other animals. Decades of anthropological research on mankind's nearest genetic relatives, the bonobo chimpanzees, show that they spend a great deal of their time engaged in sex and sexual play. Humans, like their primate relatives, 'naturally' engage in sex because we are the most social of animals and sex is a fundamental part of our social nature. Sex, then, is a relation, not just 'behaviour'.

This insight helps us to understand why calls for abstinence are not effective. While abstinence from sex does guarantee immunity from infection, it is a price few are willing to pay. This is not a moral failure. It is, anthropological speaking, what makes us human; perhaps all too human. A shift towards seeing the fundamental social value of sex, however, can also shift our perspective in the effort to stem the tide of HIV.

This new understanding is to be found not in individual behaviour, but rather in how people are linked into larger structures as the result of social *relations* that sex creates and sustains. Anyone who has sex with more than one other steady lifetime partner (one who also *only* has sex with his/her steady partner) is necessarily involved in a sexual network that links their sexual relationship to all the other sexual contacts that their partners have had or will have with other partners. Depending on how many partners people have, this network can quickly grow to encompass virtually an entire nation of sexually active people.

HIV is an infection of sexual networks as much as it is an infection carried by people. Looked at in this way, the motives for sex, or characteristics of gender and sexual orientation do not

matter. Rather, the shape, timing and extent of the sexual networks are of paramount importance. Similarly, whether sex takes place in marriage or outside of it is less important than the sexual links that are formed. This perspective moves our attention away from the moral decisions individuals make to the more abstract level of the network.

Judgments about the morality of sex are important to preserve human dignity and the value of sex itself, but often hinder the effectiveness of programmes aimed at limiting HIV. Suspicions about condoms, religious strictures on talking honestly about sex, and the high moral value placed by some on abstinence, have been counterproductive. A focus on networks may obviate some of these concerns.

Sexual networks are formed and given shape by the number of sexual partners that people have, the frequency with which they have sex, and the timing of their sexual encounters. This determines how efficient the network will be in transmitting the virus. For instance, a person who has sex in the month after being infected him/herself will be vastly more likely to pass on the infection. If such a person has sex with more than one person during this time, the chance of passing HIV onto the wider sexual network is huge.

Sexual networks in which each person is linked to multiple others, or in which people switch between several 'steady' partners over a short time, are much more likely to transmit HIV. When people have sexual contacts in many different places, perhaps quite distant from each other, the network becomes a highly efficient transmitter of the virus to all parts of the network.

These networks function like highway networks, electrical transmission networks or even the Internet: every point in the network is reachable from any other. Moreover, such networks remain highly efficient transmitters of people, goods, power or HIV, even when many links may be broken. The Internet was designed specifically to be resistant to attack. Some sexual networks may be like the Internet.

The South African sexual networks are clearly highly efficient transmitters of HIV. This can be accounted for by the fact that the population is highly mobile and closely interlinked in overlapping dense sexual networks.

By contrast, networks that are highly localised, or 'clustered', with few connections to the 'outside', or in which people do not change partners frequently, will be very slow to transmit the virus. It now appears that HIV was already endemic in small human populations in central Africa for many decades before the virus was first identified in the early 1980s. It remained limited to small populations, however, and did not escape from these isolated clusters of sexual partners.

This was the case in Uganda. Uganda has been hailed as the only African country in which HIV prevalence has fallen. Attempts to discover why this happened have been inconclusive. In fact, the decline in HIV prevalence in Uganda was so sudden that ordinary epidemiological models can not account for it.

The sudden drop in HIV prevalence in Uganda, as we have seen, was a comprehensive and sudden collapse of the nation-wide sexual network that was caused by many factors: death from AIDS, the 'ABC' factors, and, above all, the intensive involvement of all aspects of society, government, business, labour, schools, churches, mosques, traditional healers, chiefs and others. The sexual network suddenly stopped transmitting HIV efficiently and HIV prevalence fell faster than could be accounted for by either individual decisions to practice 'safer sex' or by death alone. Ultimately, it was the collapse of the sexual network that led to Uganda's apparent success.

For many reasons, HIV went global in the 1980s, however, and spread around the world. Can HIV now be put back into the ‘bottle’ of small local populations? The answer does not lie in individual decisions about whether to have ‘risky’ sex, but rather in how the broader sexual networks—now nation-wide and global—might be reconfigured to make them more resistant to transmission of HIV.



A NEW PARADIGM

With these perspectives in mind, we can return to the questions that we began with: Why do AIDS education campaigns apparently have such little effect?

To the extent that they fail to change the configuration of the sexual networks, AIDS education campaigns alone are unlikely to change the progress of the epidemic. This is true for all networks. For instance, if a few electrical sub-stations in an electrical transmission grid fail, the entire network does not crash, though it might be less efficient in transmitting electricity to all parts of the grid. If the long-distance power lines fail, however, the entire electrical transmission network can collapse. As long as the transmission lines remain up and functional, the failure of a few, or even many sub-stations, can be compensated by re-routing the flow of electricity around them. The same effect can be seen in road networks. For an ordinary network of local roads, if storms damage a section of roadway, cars and trucks can go around the problem on other roads and still reach their destinations. It might slow them down, but they will still get there. If, however, the channel tunnel that now connects England and France were blocked, it would simply no longer be possible to drive between the two countries. The two national road networks would be isolated from each other.

The same effect can be seen in sexual networks. Two countries have had exceptional success in controlling infection: Uganda and Thailand. Thailand’s HIV problem was primarily restricted to prostitutes and their clients. AIDS education campaigns were effective in getting prostitutes and their clients to use condoms in their transactions. This interrupted the network that might have allowed HIV to flow freely into the larger population. By increasing the resistance of the network to HIV, the network collapsed, and HIV prevalence fell rapidly.

Uganda is more complex because the epidemic encompassed the entire sexually active population. Large scale and integrated programmes across all sectors of society and government were effective in changing sexual behaviour. But Uganda is also highly differentiated by class, ethnicity, status, residence, and religious affiliation, among other things. The population is largely rural and not very mobile. There were also many deaths from AIDS. All of these factors had the effect of eliminating links between clusters of sexually linked people, and the whole network collapsed. HIV was no longer transmitted efficiently over the network, and HIV prevalence fell dramatically. The clustered or ‘lumpy’ shape of Ugandan sexual networks multiplied the effect of death and individual decisions to use condoms or reduce the number of sexual partners.

In South Africa, there are few social differences that prove to be barriers to sexual contact. The population is highly mobile, relatively wealthy compared to Uganda and the rest of Africa, and highly urbanised. Its sexual networks are extremely efficient. Even though education campaigns have been effective—and surveys show that they have been at least as effective in South Africa as they were in Uganda—they have had little effect on the network. This is because the South African network is highly interconnected, like a local network of roads, or a regional power grid. Even though many links in the sexual network have been eliminated, there are still enough links to ensure efficient transmission of the virus to everyone.

It is clear that merely the accumulated effect of individual decisions, or levels of knowledge, can not be effective unless they change the shape of the network.

Sexual networks, not individuals, are the ‘transmission lines’ through which HIV flows across the country. Education and awareness campaigns that miss these facts—and all have so far—are likely to fail. So far, especially in southern Africa, they have failed.



A NEW STRATEGY

This shows us a new direction for AIDS prevention, one that focuses on the sexual networks that most people are largely unaware of. This new direction should not replace the efforts that are already being made, but rather build on these by shaping sexual networks so that they are less efficient at transmitting HIV.

Preventive strategies must still rely on the knowledge, choices and practices of individuals, but the new approach is oriented towards rational engagement at the social level rather than isolated decision-making at what are inevitably inconvenient moments of sexual arousal.

This approach does not ask people to abstain from sex. We now know that this has had little impact. Instead, it seeks to limit exposure to the broader sexual networks of a region, a nation, and the world. The new approach also seeks to avoid moral imperatives and moralising. Instead it seeks to expose the hidden sexual networks that transmit HIV and to change them into less efficient transmitters.

There are a number of new preventative measures that can be put into practice.

First, we must encourage people to limit themselves to one partner at time. Overlapping sexual involvements create highways for HIV, especially if shifts between partners occur more frequently than a month or two. This is similar to the ‘be faithful’ message of the ‘ABC’ mantra, but it avoids the moralistic overtones of the call for ‘abstinence’, the first letter of the triad.

Second, we must make people aware that the timing of their shifts to new partners is especially dangerous. If people would wait for at least a month between new partners, the sexual network will be much more resistant to the flow of HIV. This is because newly infected people are most likely to infect others in the first month or so after infection has occurred. Once in the blood, the concentration of virus rises rapidly until the immune system begins to respond. After about a month, the quantity of viral copies fall to a point where the chance of infecting others is relatively small. Studies of so-called ‘discordant couples’, those who continue to have regular unprotected sex despite the fact that one is HIV positive and the other negative, show that the chance of infection for the uninfected partner is small. Eventually, the levels of virus rise to high levels again as the HIV positive person begins to enter full blown AIDS. HIV may eventually be passed on in these couples, of course, but if no new partners are involved, especially during the period of high viral load, then transmission to the large population can be avoided.

Third, the efficiency of HIV transmission across sexual networks is greatly increased if people have sex far from their own locale. Keeping sex close to home makes long distance jumps across the network more difficult for HIV. Eventually, as in Uganda, the efficiency of HIV transmission in the sexual network collapses.

A new approach to prevention that takes these facts to heart can be simply expressed.

- ‘One at a time’. Having multiple partners within a short period of time provides multiple links in the sexual network through which the virus can spread rapidly. This message avoids the moralising that is inherent in the call for ‘abstinence’, and does not deny the value and importance of sex itself. It reduces the density of the sexual network, and thus increases its resistance to the flow of infection.
- ‘Give it a break’. Waiting at least a month before starting sex with a new partner helps to ensure that a newly infected person is less likely to pass on the virus during the period of high viral load. Timing is critical.
- ‘Keep it close to home’. This message operates on the ‘diameter’ of the sexual network. It can be interpreted literally as ‘keep sex in the home’, that is, in the marriage or with one steady partner. Again, it avoids the moralising message. More than this, however, long distance links are most likely to connect pools of infection to each other by bringing everyone closer to everyone else in the network. These occur amongst those who travel. Research has identified long-distance truck drivers, and migrant workers as culprits. Sexual contact far from home is equally likely, however, for those who travel on business or to seek work, or during travel for funerals, rock concerts, visits to family, or even for religious pilgrimages. While keeping sex local may make it more difficult to achieve the fabled one night stand at a conference in a distant city, it would have a powerful effect on making the sexual network more resistant to transmission of HIV.

The approach can also be packaged as ‘One, One, One’⁵:

- ‘One at a time’,
- ‘One month between’ and
- ‘One locale or community’.

Built on a different conceptual platform than the familiar ‘ABC’ set of preventive measures (abstain, be faithful, condomise), this new approach can greatly increase the effectiveness of prevention. Rather than relying on the cumulative effect of many individual decisions to practice safe sex, this strategy acts on the configuration of the network itself. It does not rely on moral judgments and commitments, but on more practical considerations. As the network becomes more resistant to the flow of infection, it will have a multiplier effect on each individual decision that decreases each person’s risk.

Because sex is inherently a social act, rather than merely a ‘behaviour’, this approach can refocus prevention efforts on a social ethics, in addition to an individualistic morality.

Crucially, this approach does not replace other approaches, but works synergistically with them. Its *multiplier effect* increases the impact of any individual decision. Together with the ABC message, this approach to prevention could help to turn the tide.



⁵ This should not be confused with the UNAIDS ‘Three Ones’ goals that it has set for achieving more effective AIDS prevention strategies, that is, one national plan to fight HIV/AIDS, one national coordinating body in each nation, and one national monitoring and evaluation system.