

# A social scientist's reflections on HIV prevention: sexual transmission

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Globally, over 30,000,000 people are now living with HIV. Each year, prevalence has increased as new infections outstrip the number of deaths. So although the global incidence rate is thought to have peaked—at least in some countries—the absolute number of HIV infections continues to grow (UNAIDS 2006).

Questions are being asked: Has prevention failed? What HIV prevention strategies do we have? What is an **effective**<sup>1</sup> prevention strategy? And how effective are they?

- **ABC:** (Abstinence, Be faithful, use Condoms) There is no evidence that abstinence is effective and little evidence that delaying sexual initiation works – at least in the developed world (1). While there is some evidence in some countries that monogamy (being faithful) is effective – in certain contexts, there is also evidence that it is not effective in others (see for example, married women in India and some African countries) (2,3). Condoms have an efficacy of around 95% and there is evidence that in some countries and among certain populations (gay men in developed countries) that condom use is effective, i.e. they are taken up and used consistently by a majority of the particular population (4).
- **VCT:** voluntary counselling and testing. While there is some evidence that people who test HIV-positive make moves to protect their sexual partner/s (especially their regular/committed partner), there is no evidence that VCT prevents HIV-transmission for those who test HIV-negative (5,6).
- **Treatment of STIs.** There is evidence that the impact on HIV control appears to be minimal (7,8).
- **Male Circumcision.** While male circumcision has been shown to have up to 60% efficacy for the male and insertive partner, it has not been shown to be efficacious for women or for receptive gay men. Whether male circumcision is effective or not remains to be seen (9).
- **Antiretroviral Therapy.** Recently the Swiss AIDS Commission (10) has issued a Consensus Statement declaring that under certain conditions heterosexuals with undetectable viral load are unlikely to infect their sexual partners. There has however been much criticism of the idea that 'undetectable viral load' can be translated or fashioned into an effective HIV-prevention strategy (11).

As yet we have no effective vaccine and no effective microbicide.

There have been a number of commentators recently assessing the impact of HIV-prevention programs and interventions (8,12). Potts, Halperin et al.(12) assert that prevention is failing because

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<sup>1</sup> Note on efficacy versus effectiveness: I am talking about effectiveness not efficacy. The latter is an assessment of the success of an intervention. So, for example, while condoms are 95% efficacious they are not 95% effective under real world conditions and their effectiveness varies from population to population and from country to country.



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we are adopting the wrong prevention strategies: they argue that abstinence has been shown to be ineffective as have condoms (at least in most parts of the world but particularly in southern Africa); that voluntary counselling and testing (VCT) has been shown to be ineffective as prevention with the exception of those who test HIV-positive, who on diagnosis tend to protect their sexual partner; and that treatment of STIs has had a minimal effect. They argue that we should be switching our attention to reduction in number of partners (particularly concurrent sexual partners) and to male circumcision.

Although these researchers acknowledge that condoms have been effective in certain populations and that VCT is ineffective prevention except with HIV-positive people, they (and they are typical of many who publish in *Science*, *The Lancet*, the *British Medical Journal*, and other 'high impact' public health journals), fail to acknowledge that epidemics are local and particular – in the sense that their patterning is specific to particular social, cultural and political conditions. Condoms have been shown to be effective, for example, in certain sex worker populations (Thailand) (13), in gay men in most western countries (4), and initially at least among the general heterosexual population in Uganda (14) —but not, at least as yet, in southern Africa.

On the other hand, with some insight, Richard Horton (15) (current editor of *The Lancet*) does acknowledge the importance of the social. He understands that the success of HIV-prevention programs is dependent on the social environments in which they are rolled out. He argues that “our long term defence requires a deeper understanding of the conditions under which HIV is transmitted...and how they might be changed...” The conditions to which Horton was referring are primarily **social conditions**. Yet social scientists continue to be sidelined by the majority of health researchers (16).

### **Social Public Health**

At a global level, prevention has faltered. Is it that we are promoting ineffective HIV-prevention strategies as Potts, Halperin et al (13) argue or is it that we have failed to address the social conditions in which sex and sexual risk are enacted? I believe it is the latter. Without an understanding of the local and particular forms that the HIV epidemic takes in various places and regions, we will be unable to develop successful responses to it.

One of the reasons for the weakening of the prevention effort is the immediacy of the need to treat those with HIV and the cost of anti-retroviral drugs. While HIV budgets have increased exponentially since 2001, many donors direct how much is to be spent on treatment<sup>2</sup>, thus leaving investment in prevention much depleted (16). There exists an unacknowledged tension between prevention and treatment and that while there is a great deal of rhetoric about the importance of both prevention and treatment, and some largely misguided attempts to link prevention to treatment, for example via voluntary counselling and testing (VCT), prevention has stalled in many countries (17).

However, the major reason for the stalling of prevention is that the wrong paradigm of public health is being used. Modern public health (and this paradigm is the one accepted by most public health researchers and workers) is being rolled out regardless of place, culture, social and political conditions. What is needed is what I call a social public health, a public health that acknowledges that different social conditions and social environments require different prevention responses, responses that take account of the social (17,18). I have come to this conclusion after 23 years of working in HIV in Australia – in the main with gay community and NGOs that support it. I will come back to the issue of the 'modern public health' and related issues at the end of my talk.

To illustrate what a 'social' public health looks like, I reflect on three **moments** that captured what has been and continues to be central to the Australian response; a response that is predominantly a social public health response.

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<sup>2</sup> For example, the distribution of US funds (PEPFAR) is authorised by US legislation, and stipulates that 55% of funds are to be spent on treatment, 20% on prevention, 15% on palliative care and 10% for orphans and vulnerable children, and many governments are now spending a significantly greater portion (if not all) of their AIDS budget on treating those who are ill,

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The first moment concerns the use of condoms by gay men in Australia. Gay men began using condoms in Australia (specifically Sydney and Melbourne) in 1984/5 – well before public health authorities recommended their use. Furthermore an early study in Sydney in 1985/6 (19) demonstrated that, at that point in time, one of the strongest predictors of condom use was engagement in/attachment to gay community (measured by number of friends who are gay, time spent with gay friends, attendance at gay events, use of gay bars, sex clubs and saunas, ...). What these findings suggested was cultural, normative change – social transformation, not simply individual change. The gay community provided the conditions for social change and condom use became normative.

The second moment was the identification of a pattern of sexual practice and associated with that practice, the identification of a safe sex strategy of dispensing with condoms within regular/committed sexual relationships in which both sexual partners were HIV-negative (20, 21). This strategy was called 'negotiated safety'. In the study referred to above and in later studies it had become apparent that condom use by gay men in regular relationships was declining. Instead of reading that decline in condom use as 'relapse' as the researchers from the U.S. did, we interpreted the findings differently – and, on the basis of the patterning of the data, hypothesised that it was a deliberate strategy to reduce harm without using condoms. The decline was restricted to regular partnerships. No condom use was also more likely among men in higher occupational groups, with higher incomes and higher levels of education, and for those who dispensed with condoms within the relationship, the pattern was 'never' use rather than 'occasionally' use condoms in the six months prior to interview. After some further research – qualitative research – and discussions with AIDS Council of NSW (ACON) educators, ACON used the findings to promote the Talk Test Test Trust HIV-prevention campaign (22). This campaign advised men in regular relationships in which both partners were HIV-negative that, after discussion and in the context of honesty and trust, a contract might be negotiated whereby condom use might be dispensed with within the relationship if and only if safe sex – no sex, no anal, protected only – was agreed to for any sex outside the relationship.

A complex message but a message that was effective. What the research findings suggested then and continue to suggest – was that with the advent of the HIV test and in the context of regular relationships and with community backing and support, 'negotiated safety' was a strategy that would reduce harm (23). And although not as effective as 100% condom use (findings indicate that although the great majority of men keep to the contract – there is some HIV-transmission in the context of negotiated safety), the sustaining of safe sex was strengthened if men were provided with choice and the strategy was implemented properly. It is of interest to note that while the U.S. researchers were extremely critical of negotiated safety – many are now promoting serosorting – without acknowledging the difficulty of knowing one's casual sexual partner's HIV status – or indeed one's own HIV status if one has been engaging in lots of serosorting (seroguessing) in the context of casual sexual encounters (24).

In Australia and some countries in western Europe, negotiated safety has been accepted as one of the safe sex strategies – proportion of gay men using this strategy in the context of regular relationships has increased in Australia (25) – again confirming a normative / cultural change or social transformation in the context of social conditions afforded by gay community, by medical knowledge (the advent of HIV testing) and in the context of regular sexual relationships.

The third moment concerns the use of the drug methamphetamine ('crystal meth'). In response to the growing concern about drug use within gay community, we identified a patterning of sexual practice that was predictive of seroconversion and this patterning included 'crystal meth' use. It was not the case that there was a simple linear relationship between methamphetamine use (or any other drug, for that matter) and unsafe sex or seroconversion but a complex set of relationships between certain 'adventurous', esoteric and risky sexual practices, illicit drug use and Viagra use, on the one hand, and seroconversion, on the other (26). Much of this practice was located within specific gay sexual subcultures in which large numbers of HIV-positive men participated. This patterning of practice, including the use of crystal meth and Viagra, has been confirmed (27): any unprotected anal intercourse within these social milieus or contexts was especially risky vis-à-vis HIV transmission. In order to address this pattern of risk, which was particular to a sexually adventurous subculture of gay men, HIV-prevention strategies specific to that subculture had to be developed.

What these three moments illustrate is the central role of gay community and its subcultures in regulating sexual practice and its associated risk. Working alongside and with community and with the NGOs that support community, we, the researchers, in describing the patterns of their sexual practices, began to reach an understanding of the social and cultural conditions of HIV transmission among gay men in urban areas in Australia. That understanding informed the government and non-government HIV-prevention responses of community and gave Australia effective prevention programs – notwithstanding the recent upturn in HIV infections in Victoria and Queensland – which has been shown to be a function – at least in part – of the break-down or at least fragility of the partnership between NGOs and government in those two states and a concomitant lack of funding of the NGO sector – especially with regard to prevention (28).

There are two other moments (current moments) that I want to say something about – and I will return to these later: these are the moments created by the sudden interest in male circumcision as HIV-prevention, and the Swiss Consensus Statement concerning undetectable viral load.

### **Lessons learned**

The following lessons were learned from our work with communities and NGOs:

- 1: communities can and do respond to the threat of HIV if supported and funded
- 2: the importance for researchers to work with communities and to see the world from the community point of view as well as from the point of view of the researchers' academic disciplines
- 3: the importance of acknowledging and building on the responses of the community, and not imposing, as the outside expert, 'one size' fits all interventions such as monogamy, condoms, abstinence, and male circumcision.
- 4: the importance of acknowledging that social transformation and change can and does occur if the focus is on community and not simply (and I would add simplistically) on the individual as the agent of change
- 5: the importance of the ways in which new medical technologies are understood by community and taken up (appropriated) by community – HIV test status, knowledge of viral load, etc..

It is imperative to understand the social, cultural and political conditions of sexual practice and associated risk of HIV-transmission. If one doesn't understand these conditions and work with them the HIV-prevention is highly likely to fail. Many of these social conditions can be captured by working with the concept of sexual practice and not with the somewhat simplistic concept of sexual behaviour. We will change sexual behaviour only if we change sexual practice – whether that is sex within a regular relationship or marriage or concurrent partnership – or sex within a casual encounter – or sex within sexually adventurous sub-cultures. We need to understand what these practices signify, and how these different practices are enacted in everyday life.

One size does not fit all: what works with gay men in urban Australia may not work with rural men in remote towns in Australia, with heterosexuals in southern Africa, or PNG, or with the clients of sex workers in China, ...

'Social' public health acknowledges that persons are constituted in the social and recognises that actions/ behaviours are socially produced. They are not unconnected individuals but are persons connected through complex webs of social relationships. Typically this model and its variants are informed by social science notions of practice, social transformation, and collective agency. Importantly, social scientists who developed these theories were inspired by the collective practices of prevention already at work in various communities, particularly the gay community at the beginning of the epidemic. They observed and interpreted and resisted imposing solutions from the outside.

These social theorists argue that individual behaviour and "choice" is always mediated and structured by social relationships, which are in turn traversed by important differences in community, social status, class and other structural differences such as gender and age. In other words, individual behaviour is always contextual, always socially embedded. For these theorists, prevention information is not passively imbibed by individuals but must be actively taken up (appropriated)

through talk and collective action within a given social context in order to acquire meaning and become effective.

Prevention interventions/ programs in a social public health are focused on resourcing communities or groups to educate and skill their constituent members, on changing normative understandings and expectations, and acting on their behalf to advocate for change. There is support for **social** movement. Within this model, success (and failure) lies in the ability of policy makers and researchers to enter the life worlds or take up the positions of members of the communities or populations at risk and understand the world from their point of view. It lies in policy makers' and researchers' ability to be critically reflexive and to build on the understanding and practices of the communities at risk and to harness their collective energies and attempts to respond – in this case - to the risk of HIV. In this model failure to respond effectively to the threat of HIV is understood as the inability or unwillingness of government (and civil society) to act – not as the failure of the individual.

### **Challenges for the future**

There are two challenges I focus on: the first is the growing medical dominance in the area of prevention.

#### *Biomedical Prevention*

Since 1996 and the advent of antiretroviral therapy, medicine and the associated dominant public health paradigm, the 'modern' public health, have gained strength. The HIV prevention response within this modern public health paradigm is to educate, advise and counsel the individual to adopt safer practices – condoms, clean needles, via voluntary counselling and testing typically in the context of health care – a hospital or clinic setting. Prevention is essentially top down – from the expert to the individual – who is the recipient of the advice and the counselling. Risk-taking is positioned as a function of a *misperception* of risk or a lack of information on the part of the individual. Or risk taking is ascribed to psychological factors such as lack of "self-esteem" or "self-confidence" or to other more pejorative factors such as 'anti-social' or addictive personalities that compromise the ability of the individual to make "rational" choices, or to act on the information received. The individual is held responsible and blamed if s/he does not act rationally or appropriately. Stigma and discrimination are the natural if unintended consequences of this 'modern' public health – particularly in the context of the epidemiological naming of 'risk groups'. Stigma and discrimination are reinforced by the epidemiological categories developed in order to respond effectively to a virus, a virus that is continuing to spread along societies' fault-lines of race, gender, sexuality and class.

Recently we have witnessed what most commentators are now recognising as a failure of the modern public health strategy to test and test and test (6): the WHO and UNAIDS program of VCT (voluntary testing and counselling) is clearly a **prevention** failure. However in some countries there is a continued commitment to testing as prevention and in many of these countries there has been the move to make testing routine, provider-initiated or mandatory.

Whatever the publicly espoused line on VCT as prevention, there is agreement that prevention efforts need to be renewed and strengthened. And within medicine, circumcision is currently the new toy – the silver bullet. Randomised controlled trials have shown male circumcision to be around 60% efficacious for the male insertive sexual partner only. There has been some talk of eventual indirect impact on women and receptive partners but that is a long way off. In the haste to promote and rollout circumcision, there has been a glossing of efficacy with effectiveness. There are no data on effectiveness and little research has addressed the issue of risk compensation. Will circumcised men be more or less inclined to use condoms? A recent paper (29) modelling the impact of male circumcision indicates that for example if men are around 60% less likely to use condoms with casual partners after being circumcised then there are likely to be more infections among women – rather than fewer. The authors conclude: "Risk compensation could dent the impact of the intervention (circumcision), so it will be especially important for safe-sex messages to be reinforced for men being circumcised." But these 'safe-sex messages are the very ones that researchers promoting circumcision have argued are ineffective (12).

So although no one really knows whether the gains made by circumcision will be wiped out by increased condomless sex, circumcision is being vigorously promoted across not only southern Africa (where it indeed may have some positive impact) but elsewhere – e.g. in China and much of Asia – where male circumcision is not typically practised.

While male circumcision has been embraced by most in the medical profession, the potential prevention benefits of antiretroviral therapy for people living with HIV who have undetectable viral load, (the Swiss Consensus Statement) has been responded to extremely negatively by most in public health (10, 11). While reliance on undetectable viral load under the conditions set out by the Swiss HIV-1 advisory group may not be a sensible strategy for all, it may provide an effective harm reduction strategy for those in serodiscordant regular relationships. The controversy generated by the release of the Swiss Statement fails to address contexts – in this case the social contexts in which antiretroviral therapy and support health services are available and the interpersonal context of serodiscordant regular relationships.

The second future challenge lies in the recent push for the end of exceptionalism. Roger England in a recent paper (30) asserts: "Vast sums of money have been wasted through national commissions and in funding esoteric disciplines and projects instead of beefing up public health capacity that could have controlled transmission."

These are strong words and I assume the reference to 'esoteric disciplines and projects' is a reference to social science and perhaps the interventions and programs developed and managed by non-government organisations. England's views are extreme, however they are certainly compatible with a modern public health that ignores the social disciplines as either too esoteric or using the wrong methods.

As I have argued above, without social science public health initiatives may well fail – at least up until a vaccine of at least 70 – 80% efficacy is found. None of the other HIV-prevention methods work for everyone, but many of them do work for particular populations. There is not one answer to this epidemic but as many answers as there are sexual practices, that is behaviour patterned by social and cultural conditions.



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