

# STIs Amongst Gay Men: Rethinking the Gay “Community” Role

## Discussion Paper

November 2004

Prior to the HIV epidemic, there were so called hyper-epidemics of bacterial STIs and of Hepatitis B amongst gay men. The widespread changes in sexual behaviour made by gay men in response to HIV were sufficient to curtail the epidemics of gonorrhoea and syphilis – their incidence dropping to almost zero levels amongst gay men in the late 1980s. Even though funding for the national HIV strategy was sometimes used to fund broader and ‘general public’ sexual health infrastructure, gay men’s sexual health services and medical practices with largely gay male patients did far more HIV and far less sexual health.

Gay men’s sexual behaviour began changing almost coincident with the arrival of HAART. In many studies ‘treatments optimism’ was correlated with increased sexual risk taking – although this may be only one factor in a complex picture. While these changes did not represent a generalised breakdown of the ‘safe sex’ culture for HIV, when put together with the cessation of routine sexual health screening programs amongst gay men and their lack of awareness about STI symptoms and management, the changes were of sufficient magnitude to “drive” new epidemics of gonorrhoea and syphilis. Gonorrhoea became re-established amongst gay men in Australia in 1997, and syphilis in 2002.

The return of STIs amongst gay men led to calls to better integrate sexual health, STI control and HIV prevention and treatment. Improvements in treatments and the ‘normalisation’ of HIV as a chronic illness led to perceiving HIV as more like other STIs. It was suggested that the national HIV strategy should be part of a broader sexual health strategy. It was thought that one broad sexual health strategy would resolve some of the structural problems for many organisations in some states that did both STI and HIV prevention – but were funded through different mechanisms with different reporting requirements.

The HIV sector has resisted attempts to integrate HIV and sexual health into one strategy – preferring a separate and independently resourced national sexual health strategy. Until recently, this was the position taken by the national government. Not all HIV is sexually transmitted. By and large, STIs are not life threatening and do not have the same complications and complexity associated with their treatment. The treatments for many STIs are curative. This is not the case for HIV. The priority strategies in STI prevention are medical rather than behavioural – whereas the priority HIV prevention strategies remain behavioural interventions. STIs do not have the same social stigma attached to them as HIV infection and only some STIs are life long infections. People living with HIV are recognised as a distinct population whereas there are not ‘people living with an STI’. There were also concerns that integrating HIV and sexual health could result in a loss of focus from the national HIV strategy and a diversion of resources away from HIV into non-priority issues.



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This history has resulted in ongoing tension between the HIV sector and sexual health physicians. It also led to the characterisation of STIs and its prevention as ‘medical’ (and indeed there is a perception that that is precisely what some sexual health physicians were saying to the HIV sector) whereas HIV prevention was more ‘behavioural’ and ‘social’.

The purpose of writing this is not to debate the appropriate national strategy structures – that is obviously the subject of ongoing debate in relation to the fifth strategy. What I’m more interested in is how we in the HIV sector have responded to the challenge of the return of STIs in gay men. We need to consider how the debates over the national structures have been an impediment to us engaging with STIs in a strategic and comprehensive way.

I want to make the following points.

**A. *Addressing STIs must now be a central part of HIV prevention.***

When changes in behaviour in response to HIV occurred in the early 1980s they had a huge impact on decreasing STIs amongst gay men. This has led to a persistent belief that HIV prevention also results in STI prevention – therefore STI prevention was and remains a secondary goal to the “main game”. But STI prevention for gay men is not an automatic secondary outcome of HIV prevention – as the following tables attempt to explain.

The changes gay men made in response to HIV in early-mid 1980s		
	Impact on HIV prevention	Impact on STI prevention
Safe sex	Large	More for some STIs than other STIs – but safe sex does not prevent most STIs – only reduces the risk of transmission (and in some cases not much at all)
Less no of partners?	Some unquantified impact	Significant
In summary: The changes gay men made in response to HIV in the early-mid 1980s had the secondary outcome of preventing STIs		

The changes gay men made in response to improvements in HIV Treatments and the normalisation of HIV		
	Impact on HIV prevention	Impact on STI prevention
More partners?	More HIV transmission risk	Increased STI transmissions
More negotiated unprotected sex (or strategic positioning) based on HIV serostatus	Little or no impact on HIV transmission	Increased STI transmissions
More UAI casual	More HIV transmission risk	Increased STI transmissions
More anal sex	More HIV transmission risk	? STI transmissions
<p>In summary: While the changes gay men made in response to HAART increased the risk of HIV transmissions this was by and large balanced by the impact of HAART on decreasing HIV infectivity. However all of these changes were more likely to drive up rates of STI transmission. Because HIV treatments reduce infectivity it is now possible to keep HIV infection rates stable while rates of STIs keep climbing – <b>that is STI prevention is no longer a secondary outcome of HIV prevention.</b></p>		

The changes that have occurred in STI prevention for gay men since the beginning of the HIV epidemic		
Just prior to (and after) the beginning of the HIV epidemic <ol style="list-style-type: none"> <li>Publicly described STIs were few</li> <li>HIV prevention was sex positive and set in gay men’s culture</li> </ol>	Now <ol style="list-style-type: none"> <li>Multiple STIs – a ‘sea of bugs’</li> <li>STI prevention over medical and sex negative</li> </ol>	Impact on STIs
Screening programs were in place – both doctor and ‘client’ driven	Doctor driven screening programs are erratic (and impeded by funding barriers), ‘client’ driven may occur less?	Increase STIs
Gay men had a high knowledge of symptoms	Knowledge and awareness is much lower	Increase STIs
Gay men had a high knowledge about the necessity to complete a course of antibiotics for an STI	Knowledge is low about treatment adherence and its need	Increase STIs
STIs were just a part of being a sexual gay man – more like a sexual side effect than something to be ashamed of	Getting an STI is an indicator of being sexually irresponsible – or for HIV-positive gay men putting others at risk	Likely barrier to seeking and getting treatment
<p>In summary : Significant elements of STI control programs amongst gay men no longer function as effectively as they did – and of those things that have changed they are as much ‘social’ as necessarily ‘medical’</p>		

As HIV infection rates have started to climb, the need for parallel STI prevention and control programs has increased. We know that there is epidemiological synergy between many STIs and HIV – and that an STI infection can increase HIV infectivity and the probability of HIV acquisition – and vice versa. As HIV has returned, what we understand from seroconversion data and other social research, is that at least in Sydney and probably in Melbourne, it is associated with a ‘core’ group of sexually busy, gay community attached 30-something gay men. This is also the group amongst whom gonorrhoea was first reported and associated with syphilis. While anal gonorrhoea is still associated with this group, pharyngeal gonorrhoea is now associated with younger gay men. That is some HIV and STIs are very prevalent in the same populations – and the multiplication effect of STIs on HIV transmission risks is far greater than you would estimate than by looking at the total gay population seroprevalence of common STIs. In the early 1980s, responses to HIV had the secondary outcome of preventing STIs. *In the early 21<sup>st</sup> century, HIV infection rates are climbing – but if there were not concurrent STI epidemics it is not unreasonable to speculate that HIV infection rates would be stable or declining.* Don’t take this too far though – because about the only successful example of achieving STI control is the sorts of widespread changes made by gay men in response to the HIV epidemic . There is not some secret successful STI control methodology and some conspiracy to stop it from happening – achieving STI control is not easy without additional reasons for large changes in behaviour. However, in the conditions that exist now in the HIV epidemic, STI prevention and control must become central in HIV prevention.

***B. STI prevention is NOT solely ‘medical’ nor has it ever been. In fact it is failing because it has been left to medicine, and has not had enough attention from gay men’s health agencies.***

The table overleaf is based on a survey of 47 GPs (32 responded) who are HIV prescribers in inner, eastern and northern Sydney.<sup>1</sup> Significantly when asked what would most increase gonorrhoea and STD testing, the equal top answer is here is “Gay men need to be educated to ask for regular STD testing” – that is an educational intervention – not a ‘medical’ intervention, even when they are contextually linked in the consultation room. The authors conclude: “Sydney GPs with high HIV caseloads perceived structural barriers to gonorrhoea testing and supported a range of achievable strategies to overcome these. As the sustained epidemic of gonorrhoea in Sydney may be directly promoting HIV transmission, these strategies should be considered urgently.”

	Strongly agree / agree	No opinion	Strongly disagree / disagree
The 3-test pathology testing rule impedes my testing for gonorrhoea and other STDs	17	1	14
I feel pressure from the Health Insurance Commission about my pathology ordering practices	15	3	14

<sup>1</sup> Donovan B, Knight V, McNulty AM, Wynne-Markham V and Kidd, MR. Gonorrhoea screening in general practice: perceived barriers and strategies to improve screening rates. *MJA* 2001; 175: 412-414.

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	Strongly agree / agree	No opinion	Strongly disagree / disagree
It is necessary to swab the throat, urethra and anus of every gay man who had sex >1 partner every 3 months*	9	5	16
I have concerns about the confidentiality of the notification procedure for gonorrhoea	8	5	19
Clinical time pressures prevent me from testing for gonorrhoea	8	1	23
I'm worried about recriminations against my HIV patients with gonorrhoea†	6	3	22
I rarely think of testing my patients for gonorrhoea	6	2	24
There are too many specimens to juggle	6	1	25
The patient needs to request gonorrhoea/STD testing	5	2	25
It would offend my patients if I suggested that they need testing†	3	2	26
I am too embarrassed to do anal swabs	1	2	29
I would usually know if my patients had gonorrhoea anyway	1	1	30
I treat gonorrhoea empirically without taking a swab to avoid confidentiality/notification issues	0	1	31
<b>Which of the following do you believe would increase testing for gonorrhoea and other STDs</b>			
Gay men need to be educated to ask for regular STD testing	25	4	3
Relaxing of the 3-test rule (eg, excluding STD and HIV tests from formula)*	25	2	5
Easier pathology tests†	23	1	7
Anonymous STD notification procedure†	21	7	3
Review of Health Insurance Commission policy on frequency of STD pathology tests	21	8	3
Training or an update on gonorrhoea and STD testing†	21	4	6

STD=sexually transmissible disease. \*Two general practitioners did not respond to this question. †One general practitioner did not respond to this question.

In California, the Gay and Lesbian Medical Association puts out a list called ‘Ten Things Gay Men Should Discuss With Their Health Care Providers’.<sup>2</sup> Such a list explicitly recognizes the partnership between ‘patient’ and ‘doctor’ – and health as social practice.

***C. STI Prevention is NOT the same as HIV prevention and safe sex is for HIV prevention – NOT STI prevention***

The core educational messages for STI prevention should be:

- Know about symptoms and get them checked by a doctor
- Have regular STI screening
- Know how to ask your doctor about STI screening and symptoms
- Complete any course of antibiotics
- With a bacterial STI abstain from sex until treatment is completed
- Where a vaccine exists, get vaccinated

We can also add:

- Condoms do not prevent many STIs but reduce the risk of some
- Reducing your numbers of partners – however it is highly unlikely such a message would work. In HIV prevention a deliberate (decision was made not to focus on numbers of partners in HIV prevention.

The central messages in STI prevention are about presenting for, asking for (and even insisting on) medical interventions. The messages by and large are not about sexual behaviour. In gay men’s HIV prevention sexual behaviour is central although since the advent of HAART there are secondary prevention messages related to treatment, but unlike STI prevention, HIV treatment is not a central part of HIV ‘control’.

When I look at some (not all) of our STI prevention efforts, they seem over medical, overly diseased focussed, and unclear about what they are precisely asking gay men to do or know. They have often utilised pictures of diseased organs – in both educational forums and educational resources. This comes out of long established practice in the education of medical students and very old research that the use of such pictures has an impact on sexual behaviour. I’m not sure of the utility of such methods for gay men, especially for highly sexually active, relatively well informed men in their thirties and older. I have this fear that it reeks of anti-sex messages rather than demystifying STIs.

Condoms and safe sex often get positioned as central STI prevention strategies. They are part of the picture in reducing some STI transmissions – but only a part.

Safe sex needs to be a phrase reserved for HIV prevention and not confused with STI transmission. A recent review of prospective studies<sup>3</sup> looking at the efficacy of condoms in preventing HIV and STIs found condoms were highly effective in preventing HIV, and offered

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<sup>2</sup> Gay and Lesbian Medical Association. Ten Things Gay Men Should Discuss With Their Health Care Providers on [www.glma.org/news/releases/n2071710gaythings.shtml](http://www.glma.org/news/releases/n2071710gaythings.shtml)

<sup>3</sup> Holmes KK, Levine R & Weaver M. Effectiveness of condoms in preventing sexually transmitted infections. Bulletin of the World Health Organisation. June 2004, 82(6), pp 454-461

weak protection for Herpes, gonorrhoea, syphilis and chlamydia. Condoms offered no protection against HPV.

***D. For STI prevention amongst gay men – the time is now***

There are particular things about the current moment that make STI prevention for gay men particularly important.

In mapping sexual epidemics amongst gay men, the well known Anderson-May equation, developed in 1987, has often been used. It is:

$$r_0 = \beta c D$$

where:

$r_0$  = “reproductive rate”,  $\beta$  = per episode transmission probability,  $c$  = number of different partners,  $D$  = duration of infectiousness.

When  $r$  is greater than one, an “epidemic” is growing. When  $r$  is less than one, “epidemics” are declining. Changes in gay men’s behaviour and declines in screening and symptom knowledge have changes  $r$  from less than 1 to more than 1 for many STIs.

At the recent NSW epidemiology forum, Chris Bourne used this equation to examine the sorts of changes that might get  $r$  back to under 1.<sup>4</sup> Note he wasn’t necessarily advocating these – just listing possibilities.

These included:

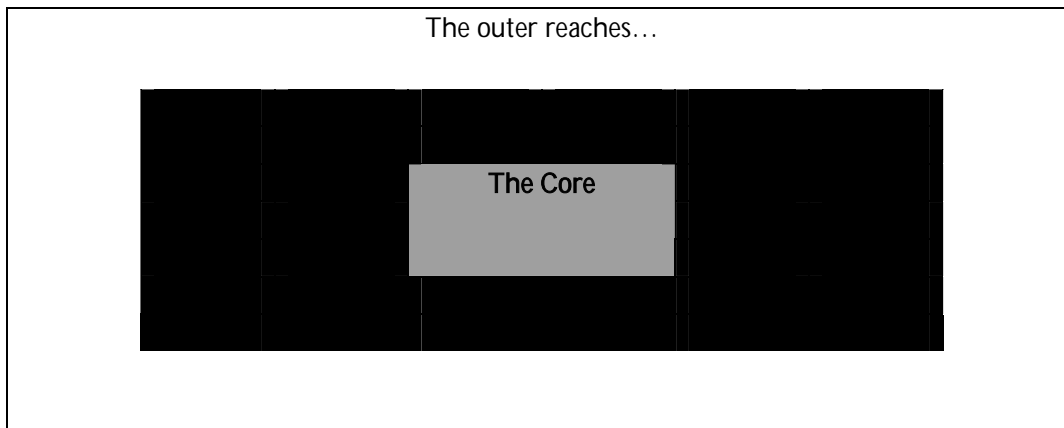
Reducing transmission probability ( $\beta$ )	Reducing numbers of sexual partners ( $c$ )	Reducing duration of infectiousness ( $D$ )
Condoms Withdrawal Non-penetrative sex PREP Vaccination Washing/douching and antiseptics Circumcision Suppressive treatment PEP	Sex education HIV/safe sex messages Moral (and legal) restrictions on behaviour / sex work Close venues or delink intoxication and sex Add quality to relationships (“community development”)	Contact tracing Partner notification Routine(eg antenatal) and selective (gay men) screening Education about early symptoms (both people at risk and health professionals) Accessible clinical services Better tests and treatments Mass treatment

Although the Anderson-May equation works well at describing the three sets of important factors – it assumes relatively random partner swapping. Later work<sup>5</sup> to mathematical model sexual

<sup>4</sup> Bourne, C. Sexually Transmitted Infections in gay men in inner Sydney, August 2004. Powerpoint presentation to NSW HIV epidemiology forum.

epidemics recognizes the central importance of a ‘core’ group of highly sexually active gay men. Complex equations to take into account this core more accurately describe the epidemic patterns seen in sexual epidemics amongst gay men.

An overly simplified schematic representation of the core group is given below. This table schematically represents the ‘core’. The grey area represents the highly sexually active ‘core’ group – who often have a lot of sex with each other. (In reality though there is no fixed central “core group” – rather periods when gay men move in and out of what may be described as a ‘core’) The black much larger group represents a group that occasionally has sex with the core group. (Of course this is totally oversimplified, however mathematical models based on these sort of models work best at mapping sexual epidemics amongst gay men.)



Importantly Australian seroconversion studies from the mid 90s were likely to describe the recently infected as a wider diverse group more characteristic of a more diffuse epidemic spread beyond the core group. Recent seroconversion studies are more likely to associate recent HIV seroconverters with “the core” group – although it is still the case that about 50% of new infections are people who would be described as outside the “core”. When the return of gonorrhoea was first described it was closely associated with the ‘core group’. It is now much more diffuse. Syphilis is still associated with a “core” group.

Once an epidemic spreads beyond the core group it is much harder to intervene in its course. For both recent HIV infections and syphilis, targeted intervention now at the “core” have more chance of interrupting future epidemic spread.

Rises in new HIV infections are a global phenomenon. The “core” is not just a local city map, but national and international in scope. Cheap and frequent international travel makes the distance between popular gay cities and sites small. Recently, genetic mapping of a sexually transmitted European Hepatitis A epidemic followed the “Easyjet” airline routes.

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<sup>5</sup> See for example Boily, M-C, Lowndes, C and Alary M. The Impact of HIV epidemic phases on the effectiveness of core group intervention: insights from mathematical models. *Sex Trans Inf* 2002; 78:pp78-90.

*E. There are a set of significant policy and advocacy issues related to STIs that need our attention.*

The three test rule, the diversion of gay men’s sexual health services into HIV (see note at end of paragraph), the funding of screening programs, the proper national strategy structures are all issues demanding our attention. (Note: This is not to imply sexual health monies were diverted into HIV – private GP clinics that had previously focussed on sexual health and STIs in gay men became focussed on HIV – the return of STIs and the increased numbers of gay men with HIV and increased complexity of treatments means we need more total resources)

In the relatively medium term antibiotic resistance to gonorrhoea will be a major problem. There is also some evidence of emerging resistance to syphilis – and the prospect of untreatable syphilis is a real possibility sometime in the 21<sup>st</sup> century unless attention is given to the development of new antibiotic agents.

*In conclusion...*

When HIV arrived upon us it got a huge amount of attention and focus from gay community leadership. The appropriate ways to respond were developed in a process involving a broad range of people. Gay men’s cultures were highly relevant to the appropriate ways to respond. For a set of reasons, responding to STIs has been seen more of an imposition and STIs as not the main game. Responding to STIs is not the province only of doctors or of ‘medicine’ – nor should it only belong with ‘educators’. We need to redefine what our role is – and that process needs some focus for both HIV educators, policy makers and the community sector leadership.

