

HIV Infections Among Gay Men/MSM — 2006 and Beyond

AFAO National Education Team (ANET)
Discussion Paper

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Introduction

This discussion paper was prepared in 2006 in response to data showing continued rises in HIV notifications among Australian gay men. The purpose of the paper was to generate discussion and critical thinking among the AFAO and NAPWA membership about what factors may be driving the rises and what a proper response to these may entail. Unlike other ANET discussion papers, this paper was not intended to rely only on evidence from published research data. As there is not sufficient data available in relation to some issues, this paper also draws on the professional experience and hypotheses of the AFAO National Education Team and its advisers.

In examining the available data and discussing these and other factors, this paper contends that the factors that are contributing to rises in HIV infections among gay men are multiple, complex, and unlikely to respond to any single or short-term response. AFAO will seek to use this paper and other work to help build a renewed and sustained response to the issue of rises in HIV infections.

What the data say

Below is a summary of major highlights of new infections data:

1. Since 1998 annual HIV notifications in Victoria have increased by more than 100% and in Queensland by more than 60% (although Queensland notifications fell in 2006 it is not yet clear if this will become a downward trend). In NSW the rate initially declined between 1998 and 2001, but then rose, and, by 2005 appears to have flattened out at the 1998 levels.¹
2. These increases cannot be explained by changes in data collection or testing behaviour.
3. While the median age of new HIV infections has stayed the same (in the late 30s) the distribution by age is now more spread out. There is both a greater proportion of new infections in men over 50 years old and in men from 20–30 years old. This may represent a spread of the site of new infections beyond the group sometimes referred to as “the core.”

¹ *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: 2005 Annual Surveillance Report*, McDonald, A., et al, National Centre in HIV Epidemiology and Clinical Research (2005).



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Behavioural monitoring and epidemiological factors

- Behavioural monitoring, mainly drawn from cross-sectional surveys of gay men in Sydney, Melbourne and Brisbane, showed an increase in risk taking behaviour between 1996 and 2001.² Rates of unprotected sex in casual encounters have stayed flat since 2001. Mathematical modelling has suggested that although the impact of improved treatments was initially to assist in driving new infections down, the effect of relatively small increases in risk-taking *and* the return of STIs would be sufficient to overcome this effect and drive increases in new HIV infections.³
- The proportion of people with HIV on treatments has slowly declined since 2002, consistent with treatments guidelines recommending later commencement of HIV treatments.
- The rates of most STIs amongst gay men continue to rise—including most of the common STIs known to be associated with increased transmission of, and susceptibility to, HIV infection.⁴
- Improved treatments have meant increased survival for people with HIV. This factor combined with increases in HIV infection over the last five years means there are now more people living with HIV in Australia than at any previous time.
- Recent high rates of new HIV infections may be one factor driving further new HIV infections. People with acute HIV infection are known to be at their most infectious in the period shortly after their HIV seroconversion. This factor, combined with the increased survival among PLWHA and a fall in the proportion of PLWHA on treatments, most likely means that the ‘community’ HIV viral load is now significantly higher than before HIV diagnoses began rising in 2000. This increased community viral load would put upward pressure on HIV transmissions.
- International surveys in the US and the UK suggest an increased proportion of men who have sex with men over the last 10 years. While there is no equivalent data in Australia there is no obvious reason that we should be different. The pool of people at risk of HIV infection may therefore have grown.
- Migration patterns of gay men may explain some of the differences seen in the Eastern States, with the rates of rises in NSW being significantly lower. Some hypothesise that the migration to Sydney by gay men has lessened due to both economic and social factors—indeed there may even be a migration of gay men away from Sydney. However, NSW is also the only state where the state government and the HIV/AIDS sector acted vigorously and collaboratively in response to rises in new infections. The subsequent fall in NSW HIV diagnoses in 2004 indicates that the NSW response may have acted as a significant circuit breaker on rising rates of new HIV infections in that state⁵.

² *Annual Report of Behaviour 2005: HIV/AIDS, hepatitis and sexually transmissible infections in Australia*, Rawstorne, P., et al. National Centre in HIV Social Research (2005).

³ Law, M., et al. *Modelling the effect of combination antiretroviral treatments on HIV incidence*. *AIDS*, vol 15, number 10, pp. 1287-1293 (2001).

⁴ 2005 saw mixed trends in relation to syphilis, with falls in NSW, SA & WA, but continued rises in Qld, VIC & Tas: *HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: 2005 Annual Surveillance Report*, McDonald, A., et al, National Centre in HIV Epidemiology and Clinical Research (2005).

⁵ The estimated numbers of newly diagnosed HIV infections in NSW were 306 in 2001, 363 in 2002, 361 in 2003, then, following a high-profile campaign addressing rises in HIV infections, the estimated number of new diagnoses fell to 337 in 2004.

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- Rapid increases in the practice use of ‘serosorting’ by HIV-positive men and, particularly, by HIV-negative men, as a means of negotiating unprotected anal sex.⁶ Among the *same group* of HIV-negative men in a large Sydney cohort study between 2002 and August 2005, the proportion of UAI (unprotected anal intercourse) acts with sex partners they believed to also be HIV negative increased from 6.4 per cent to 24.6 per cent of the total UAI reported by this group.⁷

Taken together, the behavioural and epidemiological data indicate that it is not changes in risk behaviour in the recent period driving new HIV infections, but rather a mix of factors which include:

- increased numbers of recent HIV infections;
- increased prevalence of HIV;
- decline in the proportion of people with on treatments; and
- co-infection with STIs

AFAO believes that these factors, when combined with the higher plateau in the rate of unprotected sex, are sufficient to keep driving rates of new HIV infections upwards—or at least sustain future HIV infections at a higher annual number—unless there are effective interventions.

Profiling who is becoming infected

Analysis of social research over the last ten years has identified the following factors as indicators of increased risk of HIV infection:

- i) Seroconversion studies identify a clustering of behaviours such as party-drug use, esoteric sexual practices, use of certain sex venues, use of the Internet and attendance at sex parties as being associated with significantly increased risk of HIV infection. This is often described epidemiologically as “the core group”. This population is sometimes conceptualised as ‘the problem group’. While belonging to this population carries a significantly higher risk of acquiring HIV infection, it describes only a minority of total of new HIV infections (approximately 25% in Sydney, and probably less in other states although no data is available). It should be noted that this group is not static: over time, new men enter this group and others leave. Other men regularly dip in and out.
- ii) Being the negative partner in a serodiscordant relationship was associated with an increased risk of HIV infection—although the proportion of men infected through UAI with a regular partner is less than 25% of the total number of infections among homosexually active men.
- iii) A relationship between treatments optimism and increased risk taking behaviour was observed in Australia, along with other countries, in the five years after treatments

⁶ Serosorting refers to the practice of seeking sex with partners of the same HIV serostatus, usually in order to negotiate unprotected anal sex with that partner, although other factors may also be at play. Among HIV negative men there is a presumed lower risk of HIV transmission, or in the case of serosorting among HIV positive men, no risk of HIV transmission.

⁷ Mao, L., Crawford, JM., Hoppers, HJ., Prestage, GP., Grulich, AE., Kaldor, JM., and Kippax, SC. (2006). ‘Serosorting’ in casual anal sex of HIV-negative gay men is noteworthy and is increasing in Sydney, Australia. *AIDS*. 20 (8), 1204–1206.

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dramatically improved—but there is no indication this was the cause of unprotected sex.

- iv) Gay men who inject drugs have a significantly higher rate of HIV infection risk through sexual activity (not drug use), although the numbers involved are quite small.
- v) The use of some drugs (cocaine, ecstasy, crystal, poppers, and Viagra) is associated with a higher risk of HIV infection.
- vi) As mentioned above, the median age for gay men being infected has remained in the 35–40 year old age range. However recent patterns of new infection show a flattening of the age curve with both more men over 50, and a larger proportion under-30-year-olds becoming infected.

There is no single obvious factor driving new HIV infections

Who is driving new HIV infections: people with recent HIV infection or people who know their HIV status?

When increases in HIV diagnoses were first acknowledged as a real trend in 2003, there were significant concerns within AFAO and its member organisations about a knee-jerk US-style response that would involve:

- i) Stating that the source of infection was people with HIV. (Obviously true, but it does not differentiate between recently infected people who may not know their status and people with established HIV infection);
 - ii) Targeting people with HIV in prevention and moving away from programs targeting all gay men;
- and
- iii) Putting an emphasis on disclosure as a primary prevention strategy.

The problems with this approach were perceived to be:

- a) People with recent HIV infection, who often do not yet know their HIV status were likely to be a significant driver of new HIV infections because of their very high infectivity. These people will not be reached by programs targeting people with HIV;
- b) There was no evidence that disclosure led to safer outcomes. Indeed the Australian evidence indicated that disclosure prior to sex may make unprotected sex *more* likely; and
- c) A focus on positive people and their responsibility may lead to a false sense of safety and the belief among HIV-negative men or men unaware of their serostatus that other people would take responsibility for preventing HIV transmission.

AFAO argued for the targeting of people with recent HIV infection due to its belief that people with recent HIV infection were a key driver of the rises in HIV infection. Data from the Health in Men study on serosorting among HIV-negative men has shown that in recent years the percentage of men who report negotiating unprotected sex with casual partners who are believed to also be HIV-negative has increased from 6.4% to 24.6%. This increased pool of HIV-negative men regularly engaging in negotiated unprotected anal intercourse on the

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basis of their last HIV test result, possibly with a number of different partners either concurrently or consecutively, comprise a key target population for reducing new infections.

The changed place of HIV in gay men's and gay communities lives — then and now

The consequences of the change in the positioning of HIV and its different meaning in gay men's lives is often not well-appreciated by governments and community organisations. We know how to deal with HIV if it becomes a crisis or emergency, but HIV—individually and collectively—is no longer experienced as a crisis. The current situation is a long-term health promotion challenge relating to the sexual health of gay men that is more akin to health promotion for smoking; that is, something that needs to be addressed with concerted effort over the next 10 years—but it seems that only crisis situations that can produce comprehensive action and a sustained increase of resources.

If the conditions we are experiencing now are similar to the epidemic of acute HIV infections Sydney and Melbourne experienced in the early 1980s, then the question sometimes asked by governments is why can't community organisations galvanise the same sort of effective responses mounted from 1983 to similar conditions now?

There are many differences between 1983 and the present that need to be understood. Some of the more important ones include:

i) *Levels of condom use*

At the beginning of 1982 there was almost no condom use amongst gay men. The levels of use now remain very high, although no longer sufficient to control either HIV or STIs. The continued high usage rates do make it less likely we will see the sort of explosive increases in rates of new HIV infections seen in 1982 and 1983.

ii) *Sexually Transmissible Infections*

The behavioural responses to the threat of HIV/AIDS in the early 1980s resulted in STIs almost disappearing among gay men until the mid 1990s. For HIV-negative men, infection with some STIs increases their chances of acquiring HIV. For HIV-positive men, co-infection with some STIs increases their chance of transmitting HIV. The prevalence of STIs among gay men has been rising since the mid 1990s and in particular since 2001. Rates continue to increase (with the exception of syphilis in some states) and the co-epidemics of STIs and HIV are known to be synergistic: that is, the increased rates of STIs will be one of the factors driving increases in HIV infections. The relatively poor rates of both diagnosis and treatment of rectal STI infections are particularly concerning, as they allow the survival of a reservoir of STI infections that will in turn drive new STI transmissions.

The virtual disappearance of STIs amongst gay men from 1983 to 1995 has had a long-term impact on awareness and behaviour. Many sexual health services for gay men became HIV services, and so, when STIs returned among gay men, there was a lack of capacity to appropriately respond.

iii) *Changes in numbers of men having sex with men*

Large-scale population surveys of sexual behaviour in Western countries suggest that the proportion of men having sex with men has risen significantly since 1990; parallel studies of behaviour have not been undertaken in Australia. If these trends are international ones then they may explain some of the observed increases in the number of new HIV infections.

iv) *The impact of treatments on sexual behaviour*

Dramatically improved treatments for HIV disease were widely introduced in Australia during 1996. Treatments also reduce HIV viral load and consequently HIV infectivity. Although there has been a decline in the proportion of PLWHA on treatments in recent years, Australia still has a very high rate of people on HIV treatments when compared to other western countries. However, increases in HIV infections have occurred despite relatively high treatment rates, perhaps suggesting the pivotal role of people with recent infection driving the continuing epidemic in Australia. Optimism about HIV treatments has been shown to be associated with increased sexual risk taking in many studies. Treatments are expected to continue to improve. Although the current treatments are sometimes associated with extremely problematic side effects, there have been significant improvements and more are expected. HIV is now truly approaching being a life-long, manageable infection, albeit a very expensive one. Given this, it is hardly surprising and entirely rational that gay men may alter their risk calculations.

v) *The 'de-centring' of HIV from gay men's lives.*

From the early 1980s until the mid 1990s HIV was the pre-eminent priority of individual gay men and gay communities. It was both an individual and communal response. Now HIV is not at the centre of gay men's universe. It is treatable, and it is something that is not going to be eradicated in the short term. It is no longer scary or the Grim Reaper. This change in conceptualisation is partly the reason why the re-invocation of crisis cannot work, or only work for a very short period.

vi) *From 'identity' to 'mainstream'*

In the 1980s when AIDS first arrived it was seen as a threat to the survival of recently formed gay communities. There was a strong collective response to protect those communities. Now, over 20 years later, the ways in which lesbians and gay men live their lives is very different: community and identity no longer play the central role they used to, which also means their influence on behaviour and norms is reduced. Sexual identity now may be only one small facet of the influences on gay men's values and norms. Indeed younger gay men could arguably form their sexual values and norms from their friends at university or from youth magazines, rather than from the local gay newspaper or gay community interactions. This is not to argue that community and identity no longer have a role, but it is to state:

- a) It is now more difficult for community organisations to capture the attention of gay men; and
- b) In order to effectively reach gay men it may be necessary to use approaches in the mainstream. Indeed the adoption of a broadly targeted long term sexual health approach warrants investigation and development.

vii) The use of the Internet to meet sexual partners.

Gay men's use of the Internet to meet sexual partners has risen significantly in most Australian cities since 2000. As of 2006 the Internet had become second only to gay bars as the most common site where men look for sexual partners. (This is the case in Melbourne as well as Sydney; data from Queensland is not yet available.) In 2006 between 56.3% (Perth) and 58.9% (Sydney) of gay men reported using the Internet to find sexual partners.

The nature of this medium differs from other settings where gay men meet sexual partners. The chat sites commonly used by gay men allow people to review information about a potential partner from their profile before even initiating contact, or responding to an approach. This information may include serostatus, which is sometimes indicated in explicit, but more often in elliptical or coded forms, leaving some room for misunderstanding. It is also possible to negotiate and ask questions prior to making face-to-face contact. These features can facilitate the easier meeting of people based on particular sexual interests, and the practice of serosorting. The regular use of the same sites facilitates the development of sexual networks, and it is becoming clear, new categories of relationships (i.e. "regular Internet buddy/partner"—sometimes with whom unprotected sex has been negotiated soon after initial contact).

viii) Serosorting

Probably the most significant change in patterns of behaviour identified in the last three years is the increased use of disclosure of HIV status in casual encounters. To date this has only been described; what its impact is for sexual practice and where and why it is occurring is not understood in any detail. But the changes appear to be of such magnitude they warrant a detailed investigation.

We do not yet know if these changes are being driven by the Internet (although the increase in serosorting has occurred at the same time as the rise in popularity of gay chat sites to meet sex partners), nor whether there are increasing patterns of different relationships emerging that fall somewhere between casual and regular.

Interestingly, in the United States, where disclosure and serosorting has recently been encouraged, the phenomenon is most usually seen as providing protection against rising rates of new HIV infections, whereas within Australia, where the increased practice of serosorting in casual encounters has coincided with a period of rises in new HIV infections, we tend to think of it initially as problematic and are now trying to understand its meaning.

What are we facing?

The 2006 HIV notifications data will show that new HIV diagnoses fell in NSW and Queensland, but continued to rise in Victoria. As notifications had been rising for a number of years in Queensland, it is not yet clear that the upward trend has been broken. In NSW, the annual number of notifications has fallen back but remained at a level above the nadir reached in 2001.

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Despite the welcome falls in notifications in NSW and Queensland, there is now a new set of background factors that will continue to put upward pressure on HIV transmissions among gay men:

- a greater number of people with HIV;
- a higher ‘community viral load’;
- increased rates of STIs of the type that increase the risk of HIV transmission (i.e. gonorrhoea, herpes, chlamydia, syphilis); and
- increased rates of serosorting among HIV-negative men—including men who believe themselves to be HIV-negative but are in fact HIV positive.

These factors would suggest that there is no reason to expect that notifications will naturally trend down. Without some significant changes, then:

- i) rates of new HIV notifications may resume trending up the way they had been from 2000 to 2005.
- ii) we could reach some critical mass—as experienced in Australia in 1982—and have a rapid explosion in the rate of new HIV infections.

An emerging ‘consensus prediction’ seems to be that we will not have a 1980s sort of explosion—but without intervention or change the rate of increase will continue to steadily rise.

The two scenarios above—steady increase or explosion—would have quite different impacts.

An explosion of new infections may produce crisis responses similar to 1984 and galvanize interventions, but these sort of ‘crisis’ interventions tend to produce only short-term outcomes. (It should be noted that even a short-term behavioural outcome can have a long-term impact on the rate of new HIV infections by acting like a circuit breaker).

A long-term, steady increase may be much harder to respond to. Given the improved treatments available since 1996 it is not surprising that individuals might change their risk calculations. In 1984 the scenario of the unknown, and the potential for massive numbers of deaths, produced a unique and effective response. Now what we are facing is known, and it is not the horror and tragedy of disfiguring illness and death.

Can the gay community be galvanised to respond to the prospect of a 50% seroprevalence rate of HIV in twenty years? For governments which have to pay the PBS bill the longer term prospect is worrying—to the tune of several billion dollars. But for the individual, the impact seems distant and, with further improvements in treatments, may never actually eventuate, and is therefore a problem in terms of engendering an immediate or sustained behavioural change.

Conclusions

1. There are a number of epidemiological factors making Australia more vulnerable to ongoing increases in HIV infection among gay men.
2. Increases in HIV infections among gay men are no longer being driven by rises in rates of risk practices. However, in order to reduce HIV infections we need a large decrease in risk behaviour.
3. There are important changes occurring in the structure of social relations among gay men—some rapid, others more long-term—which impact significantly on HIV transmission and on HIV prevention programs. They include:
 - Reduced participation and patronage of gay social venues and sex-on-premises venues
 - Reduced significance of gay community in values and identity formation and maintenance ('mainstream' versus 'community')
 - Reduced significance of HIV in gay men's lives—both HIV-positive and HIV-negative
 - Increasing use of 'serosorting' as a basis for negotiating unprotected sex
 - In line with Australian government policy for Australians generally, a cultural shift away from shared responsibility toward increased personal responsibility
4. The internet is contributing to rapid changes in social practice, such as a large increase in 'serosorting', in ways that are little understood and require intensive, timely research.
5. The increased prevalence of STIs amongst gay men has created conditions that increase HIV transmissions without any increase in risk behaviour among gay men. The re-establishment of STIs at endemic levels in itself requires a well-considered, well-resourced national response.
6. Overall this is a long-term problem confronting us for the next 20 years—not a short-term one which can be resolved with some quick interventions.
7. In order to address HIV in Australia a recommitment by governments and the sector is required. It will require putting HIV education back into mainstream thinking.



This paper was conceived and initially drafted by Ross Duffin, a member of the AFAO National Education Team (ANET), in mid-2006. It has been revised and updated in February 2007 by the current members of the ANET Team.