

**‘A Think Tank: Why are HIV Notifications Flat in NSW 1998-2006?’
30 April 2007**

CONSENSUS STATEMENT

The NSW HIV Think Tank was organised by the Health Promotion Sub-Committee of the NSW Ministerial Advisory Committee on HIV/AIDS and Sexually Transmissible Infections. It brought together leaders in HIV epidemiology and social research, clinical sexual health, the HIV community response, and officers from the Communicable Diseases and AIDS/Infectious Diseases Branches of the NSW Department of Health. An observer also attended the meeting, from the Australian Government Department of Health and Ageing.

The history of the Australian response to HIV and AIDS bears testament to the importance of both an evidence-based policy platform and an effective partnership between government, community, researchers and clinicians. These features have enhanced our ability to modify behaviours that put people at risk of HIV infection and have enabled containment of the spread of HIV infection more effectively than comparable jurisdictions. Indeed, in contrast to comparable countries, Australia has a low prevalence of HIV in all populations, including among homosexually active men. We also have very low prevalence among injecting drug users and sex workers, so that in terms of risk and those living with HIV, the Australian epidemic remains as it began: overwhelmingly, an epidemic among homosexually active men.

However, in other aspects, the HIV epidemic continues to evolve and with effective treatments and the consequent improvement in survival after HIV infection, we are now faced with an increasing prevalence of HIV among homosexually active men across Australia. There are also apparently different rates of HIV notifications in different States. Notifications in NSW over the last ten years appear to be fairly stable but notifications are rising in Victoria, Queensland, Western Australia, and South Australia¹.

The meeting focussed on infections among homosexually active men because they constitute a majority of annual HIV notifications and are the dominant source of fluctuations in notifications. The meeting analysed data in relation to NSW, Queensland and Victoria as comprehensive and comparable data, in relation to key factors, is available for all three states.

¹ Recent notifications trends in Western Australia diverge from the pattern seen elsewhere in Australia and historically in Western Australia, with an increasing proportion of new notifications in West Australian residents attributed to heterosexual contact overseas.

The purpose of the NSW HIV Think Tank was to explore this apparent difference between NSW and these other States, to confirm if the apparent difference does actually reflect a real difference in infection rates and to explain the difference. Doing this is important for a number of reasons. The purposes included:

- to check that the situation in NSW is at least stable;
- to understand what has been different in the NSW epidemic and response that needs to be maintained and reinforced;
- to explore what more needs to be known or done to guard against future increases; and
- to reduce the present rate of notifications.

The NSW response to the epidemic is a “work in progress” and the Think Tank is an important way to check in, to review and to refresh strategy. During the Think Tank, leading HIV researchers from both epidemiology and social science disciplines, together with NSW Health Communicable Diseases Branch epidemiologists, presented the results of a detailed examination of all the available data from the last ten years. Representatives of the Australian Federation of AIDS Organisations, the AIDS Council of NSW, People Living With HIV/AIDS NSW and sexual health practitioners presented the results of work they had done on the particular nature of the NSW response and its evolution and social researchers presented data on the differences in the gay communities in different States, together with an account of interviews with key informants across sectors, specifically conducted for the Think Tank.

The following are the findings of the NSW HIV Think Tank.

Notification Trends

Workshop participants agree that HIV notifications for NSW have remained relatively stable over the period 1996 – 2006.² This is a different trend to that observed in Queensland and Victoria, where substantial increases have been recorded over the same period. Historically, the population rate of HIV diagnoses in NSW has exceeded that of Victoria and Queensland. The rate of both newly acquired HIV infection and newly diagnosed HIV infection in Victoria has now converged with that of NSW and was equal in 2006.³

² The increase between 2001 and 2003 was offset by a decrease between 2003 and 2006. The reason for this apparent increase was discussed with explanations including both a real increase in notifications that was effectively responded to with concerted public health action and an increase in “new infections” notified, in part caused by an intensive primary diagnosis research project that may have caused different testing practice on the part of high caseload GPs.

³ There is a similar though less marked trend in newly acquired HIV, which is a different measure to diagnoses, representing only those notifications of HIV infection that are known to be recently acquired. New technology is improving the capture of new infection but the number of notified newly acquired infection should be thought of as the lower limit of the true number of new HIV infections. Improving the use of this technology to test for new HIV infection is a priority for improving our understanding of HIV incidence in future.

This is also divergent from trends observed in comparable North American and European countries, for which long term surveillance data is available, which have also recorded substantial increases in HIV notifications among homosexually active men since around the turn of the century.

NSW stands out among comparable jurisdictions both within Australia and overseas as a jurisdiction with a stable rate of notifications among homosexually active men.⁴

The reasons for the increases in HIV notifications vary among overseas jurisdictions. In some locations, there have been considerable increases in HIV testing, which have contributed to the increases in notification. Nevertheless, in almost all jurisdictions for which data are available, there are increases in HIV risk behaviour, in sexually transmissible infections, and in HIV, suggesting that the increases in HIV are likely to reflect an increase in HIV incidence.

The Think Tank agreed that observed differences in notifications in Australia reflect differences in HIV incidence and are not primarily an outcome of changes in testing patterns or notification procedures.

In NSW, and nationally, the average age at HIV diagnosis in men is increasing and is now around 38 years. In NSW, but not in Victoria and Queensland, there is evidence of declining HIV incidence and prevalence in men aged less than 35 years. At the same time, there is an increasing HIV prevalence among men aged 50 years or more.⁵

Explanation of differential trend

There has been a stabilisation and a subsequent decline in reported rates of unprotected anal intercourse with casual partners (UAI-C) among homosexually active men in NSW from 2001 to 2006, including among HIV positive men. This trend is not observed in Victoria or Queensland, where rates of UAI-C have continued to increase to the extent that they now equal or exceed those seen in NSW, nor is this trend observed in similar overseas jurisdictions for which data is available. This is the single most important explanation of the difference between the States - but it is not the only one.

There are a number of other factors that have also contributed toward a stabilisation of HIV notifications in NSW. None are by themselves as significant in explaining the difference between NSW and Queensland/Victoria

⁴ The lack of a notification system and therefore data in California means that we are not sure about San Francisco, although there is some evidence from clinic surveillance that there may be a plateau of diagnoses there.

⁵ These are also both important facts. The indications of decline in both incidence and prevalence among younger homosexually active NSW men is potentially very welcome news and the higher rate of infections among older men indicates a need for targeted action to increase prevention effort among older homosexually active men in NSW. Further work on how much age segregation there is among homosexually active NSW men is also important, including in terms of sexual activity.

but they are important in understanding differences in the sexual practices and cultures of homosexually active men in the different States. Taken together, these sometimes quite small differences, across a range of these factors, can still be important

1. Decreasing trends in factors which increase risk:

In NSW there has been:

- a reduction in the proportion of homosexually active men since 2003 reporting high numbers of sexual partners (stable in Queensland and Victoria);
- an increase in the proportion of NSW men, since 2003, reporting no current sexual partners or only having sex with one partner (stable in Queensland and Victoria);
- a reduction in the proportion of men who do not know their HIV status (in all three States);
- a reduction in the proportion of HIV positive men, who practice UAI-C, who have never disclosed their HIV status to casual partners (reduction also in Victoria, increase in Queensland)), and
- a stabilisation of usage rates of a group of illicit drugs associated with parties, which are also associated with risk behaviours and with HIV infection (against an increase to similar levels in Victoria and Queensland).

2. Increases in factors, which decrease risk

In NSW there has been:

- an increase in the proportion of HIV positive men reporting undetectable viral load, irrespective of the proportion on treatment, indicative of improved treatments efficacy and effective clinical practice (shared with Queensland and Victoria);⁶
- an increase in the proportion of men reporting recent HIV and STI tests in all three states; and an increase in the frequency of testing among sexually active men in NSW. The rate of anal STI testing is higher in NSW than other states. Homosexually active men's knowledge of their serostatus was higher in NSW than in Victoria in Queensland;⁷ and

⁶ It was agreed that it would be useful to monitor on a periodic basis the viral load of patients in a sentinel group of clinical practices to monitor this important factor.

⁷ Participants also agreed, however, that it is a priority to understand better the dynamics of testing, serosorting and risk reduction, which it was agreed may both reduce and increase risk, depending on how men understand their strategies.

- an increase in the proportion of men who always disclose their serostatus in NSW and Victoria (maintaining a higher level in NSW) and trending downwards in Queensland.

3. Changes in sexual practices and culture – regular relationships

In NSW there has been;

- a decline in the proportion of relationships between partners where one man is HIV positive and one is HIV negative (serodiscordant) compared with no decline in Queensland and Victoria; and
- an increase in seroconcordant relationships in which the partners are both HIV negative (this rate has also remained stable in Queensland and Victoria).

In all three States, there has been an increase in unprotected anal intercourse between regular partners (UAI-R) in seroconcordant and serodiscordant relationships. This may make the decrease in serodiscordant relationships in NSW and Victoria an important background factor in explaining the variation in new infection rates between these two states and Queensland.

Participants agreed that another factor that needs to be better understood is the difference between States in the effectiveness with which HIV negative men in seroconcordant relationships negotiate sex - both within and outside their relationships. Participants suspected that there might be some differences given the different educational approaches implemented in response to the emergence of this practice in the mid to late 1990s. This is important because relationships are still the site of around a quarter of infections.⁸

Investment and Interventions

As noted in the preamble to this Consensus Statement, the history of the HIV epidemic in Australia clearly demonstrates the importance of continuing critical evaluation of the evidence. Risk behaviour is modifiable and is open to intervention. At the beginning of the epidemic, unprotected anal intercourse was an almost universal practice among gay and homosexually active men. Concerted action on the part of affected communities changed this rapidly. Significant investment has since been made in maintaining infrastructure and implementing interventions to sustain behavioural change, now for over 20 years. An example of this renewal of strategy and investment ensured a timely and co-ordinated response to rises in notifications when first reported in NSW in 2003. NSW is the only place in the world with available data where HIV risk behaviour is decreasing among homosexual men.

⁸ It is suspected that the AIDS Council of NSW education strategies explicitly addressing this issue may have had a more protective impact by being more direct and sustained but there no data was available to evaluate this suspicion.

Australia has a good record, having largely contained significant spread of HIV infection beyond homosexually active men, while sustaining and continuously renewing the response within the gay community. However, it is crucial not to rest on our record and to continually respond to changes in both the epidemic and the practices and cultures of those at risk. The Think Tank also considered whether there has been a difference in the infrastructure, investment, intensity and effectiveness of the response over time in the different States.

A number of strengths were noted in the NSW response, which have not been present to the same extent, or as continuously, in either Victoria or Queensland. In particular, the following are noted:

- A very effective partnership between government, clinicians, researchers and the community. Participants, including those working at a national level, noted the clear, well-supported mechanisms for liaison and priority-setting, frankness of debate, the sharing of evidence, the absence of blame and the respect of different roles among NSW partners. The response to the 2003 increase in notifications was cited as an example, which triggered collaborative discussions to understand the problem and find an answer, not a scapegoat. A significant initiative involving HIV and sexual health specialists, local GPs and health promotion staff from AHS and CBOs, to improve the response to underlying problems in homosexually active men's sexual health has led to a plateau and reduction also in syphilis infections in Sydney men. Sydney is one of very few locations that have seen a reduction in syphilis incidence among homosexual men in recent years.
- A comparatively high per capita investment in HIV prevention programs targeting homosexually active men. Since the absorption of the previous Commonwealth matched HIV funding in the Public Health Outcome Funding Agreements ten years ago, NSW has maintained its investment in HIV overall and in HIV prevention in particular, with reviews and reinvestment implemented as needed, or in response to particular challenges - such as the 2003 increase in notifications.
- Related to both of these points has been the maintenance of a skilled workforce in HIV health promotion and policy, with key personnel working across different settings, including community-based organisations, Area Health Services, the National Research Centres (based in Sydney) and the NSW Department of Health. The maintenance of a skilled workforce within the Department of Health has enabled the Department to maintain a leadership and coordination role in the response.
- Comprehensive social marketing initiatives, which have targeted both broad and specific audiences of gay men, including HIV positive men. The Think Tank received a comparative analysis of campaign material from NSW and

one other State. The NSW material stood out in terms of both the diversity and volume of education material but also in the range of different homosexually active men to whom it spoke. Also noteworthy was, its clear integration with other interventions (eg a comprehensive range of community development and group support programs, sexual health testing and treatment, mental health and self-esteem and drug harm initiatives.) The NSW material had clearly evolved over time, responding to changes in gay culture and the place of HIV within it and had adopted a wider focus on homosexually active men's health - in response to evidence that this was an effective way to get the HIV prevention message across. The analysis also included an assessment of where new approaches had not worked and had consequently been adjusted. Participants agreed that there was clear evidence of a highly professional, well-resourced and high volume social marketing operation in NSW.

- A health promotion response that prioritises and integrates issues of service access, clinician support and education. This point was especially highlighted following the discussion of social marketing response. The evidence is that health promotion social marketing works best when reinforcing well thought through clinical and service responses. Since 2000, in particular, there has been significant evidence of a much more effective social marketing and health promotion collaboration between the HIV and sexual health sectors, to link social marketing to a health promotion message - along with investment in developing more appropriate sexual health services in high prevalence areas. Also in this context, the move of both ACON and PLWHA (NSW) to a health promotion approach has improved their impact and reach to homosexually active men. Participants noted that ACON health promotion activities clearly spoke to HIV positive men and PLWHA health promotion activities also had a prevention focus.

Community and Responses

In addition, there are features associated with gay communities and the place of HIV positive men within them, as well as the orientation of key community organisations, which have facilitated an effective ongoing response to HIV/AIDS within NSW. The Think Tank heard specific evidence comparing the nature of gay community in NSW, Victoria and Queensland. The comparison between NSW and Victoria received most attention although the prominence of the experience of homophobia in Queensland was noted as a significant result. Comparing NSW and Victoria the following differences were noted.

- A stronger association with and participation in *gay* community networks by HIV positive men in Sydney, and less association with *HIV positive* networks and organisations, relative to those in Melbourne. There is evidence of HIV positive homosexually active men in NSW feeling better able to disclose their

serostatus, to participate as gay men in gay community and possibly also, to find seroconcordant sexual partners.⁹

- A reorientation of the leading HIV prevention and service organisation in NSW - ACON - towards gay and lesbian health, without diminution of HIV prevention effort, reflects this association. Participants noted that this had been controversial at the time in NSW but did seem to have positioned ACON to continue to speak effectively to a range of gay and homosexually active men, including the large number for whom HIV was no longer as central to their sense of identity as gay men.
- An explicitly stated shared responsibility for HIV prevention education in NSW between PLWHA NSW and ACON resulting in a program - enacted in collaboration with Area Health Services and clinicians – which targets all gay men, regardless of serostatus.

Additional factors

In addition, there appeared to be a number of factors which may have an effect but for which data was unavailable or not able to be considered, and which warrant further investigation. Participants highlighted the following;

- Clinical data on treatment status and viral load, which could usefully be collected on a regular survey of sentinel practices in different States;
- Development of a more accurate picture of HIV incidence through effective utilisation of improved/more sensitive assays, to measure new infections rather than relying on new diagnoses data.
- Lack of information about the movement of PLWH/A between States after diagnosis.
- Extent of accuracy in establishing HIV negative status within assumed HIV negative seroconcordant relationships.
- Comparative effectiveness between States in respect of agreements around sexual behaviour within assumed HIV negative seroconcordant regular relationships.

Ongoing concerns

It was also agreed that there are a number of issues which may potentially jeopardise the stable trend in NSW. These issues divide into those which require

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sustained intervention in order to further reduce notifications and/or those about which we need to increase our understanding in order to maintain an effective response. They are:

- Ongoing high rates of STIs among homosexually active men in NSW.
- Relatively high rates of recreational drug use, especially among specific subcultures of gay men, including use of the drug crystal methamphetamine, which is specifically associated with particular high-risk sexual sub-cultures. This has continued to increase in all states¹⁰.
- A rate of UAI-C, which, while declining, remains at levels above those seen prior to 1996.
- Serosorting by status and possibly by age, and risks associated with incorrect assumptions about both.
- Better understandings of serosorting and of age mixing, including information on HIV transmission among older (40+) men. If current trends continue, within a few years most HIV transmissions in homosexual men will occur in those aged over 40.
- Improved understanding of the effectiveness or risk of using assumed low viral load as a protection strategy in UAI role of negotiation about viral load in potential risk episodes.

¹⁰ Participants agreed also that it would be useful to research the sexual networks that operate in the different gay communities in the States to understand to what extent particular practices of serosorting and sub-cultures reduce or, in different settings may amplify, risk.

APPENDIX A: PARTICIPANTS

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APPENDIX B: KEY DATA SOURCES

NSW Health
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SURVEILLANCE AND RESEARCH DATA SOURCES USED IN PRESENTATIONS

Data Source / Study Name	Lead	Study Design	Collection method	Numbers of participants	Available Data
Gay Community Periodic Surveys	NCHSR & NCHECR	Repeated cross-sectional surveys 1996 -2006 (ongoing)	Self-administered paper-and-pencil questionnaire distributed by trained recruiters in gay social and sex-on-premises venues, sexual health clinics and community events.	Varies by state and year. Only participants aged 30-49 are included in analyses. Samples in 2006: NSW – 2320, VIC – 1042, QLD – 532	Demographics, sexual partnerships, sexual and health related practices, drug use and HIV/STI testing
Health in Men Cohort (HIM)	NCHSR & NCHECR	Open Observational cohort study 2001 – 2006 (complete 06/07)	Interviewer administered detailed questionnaires and collection of biological specimens.	Varies by year. In 2006 – 866 HIV negative men (residents of NSW only)	Demographics, detailed measures of sexual practice and partnerships (episode level) , health related practices, drug use and confirmed HIV/STI testing

Positive Health Cohort (pH)	NCHSR & NCHECR	Open Observational cohort study 1999 – 2007 (ongoing)	Interviewer administered detailed questionnaires and some collection of biological specimens.	Varies by year. In 2006 – 270 HIV positive men (residents of NSW only)	Demographics, detailed measures of self-perceived health, treatment, social and clinical experiences. Limited questioning on sexual behaviours – since 2003
Australian HIV Observational Database (AHOD)	NCHECR	Observational Cohort (1999 – 2007) (ongoing)	Clinics submit data relating to clinic visits to NCHECR	>2000 throughout Australia	Prospective data on clinical health status and treatments from 1999
Private Lives	ARCSHS	Cross-sectional Questionnaire (2005)	Internet based, self-completed questionnaire providing a national survey of GLBTI	5,476	Social issues and impact on health and health service use. Report from http://www.latrobe.edu.au/arcschs/private_lives.html
HIV Futures	ARCSHS	Repeat Cross-sectional Survey of PLWHA (Bi-annually since 1997)	Self-completed pen and paper as well as on line versions Self complete survey, also online	~1,000 each time	Demographics, health status, treatment, health services, social and clinical experiences, Sexual relationships, home, work and money. Report available: http://www.latrobe.edu.au/arcschs/futures5.html

