Partner numbers, partnership patterns and sexual practices in MSM

Implications for HIV incidence and appropriate prevention responses

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Content

- Context - The debate over partner numbers and concurrency in MSM
- What do Australian data say?
  - Partner numbers and partnership patterns
  - Changing sexual practices
- Implications for prevention

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Context – A longstanding debate

- The 15 years following identification of HIV/AIDS were characterised by marked declines in numbers of both new HIV infections and STIs in MSM

- Broad agreement that this was the result of
  - effective generalised and targeted public education and health promotion strategies for HIV
  - widespread adoption of safer sex, primarily condom use, and having fewer new sexual partners
  - selective mortality of individuals with high-risk sexual lifestyles

- Most credit is attributed to education and increased condom usage, actual contribution of reduced partner change/concurrency never estimated

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Context – A longstanding debate

- **Consequently few HIV social marketing campaigns targeting gay men have ever had partner reduction as a core or even secondary message**

  - history of MSM's moral and legal repression requires sexual health promotion messages be "sex positive"
  - Avoid messages *'burdened with heterosexist values'* - that don't celebrate gay men as being different
  - partner change and reduced partner numbers were not proved effective strategies without enacting other supportive practices (e.g. condom use)
  - question degree to which 'monogamy' was a value gay communities and service organisations should be perpetuating given uncertain value in HIV prevention

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Changes in sexual behaviour in the 1980s affected HIV & STI rates

Behavioural changes	Impact on onward HIV transmission	Impact on onward STI transmission
Safer sex (esp. condom use)	Large	Greater for some STIs than for others, especially by reducing likelihood of onward transmission
Fewer sexual partners	Unquantifiable because population prevalence unknown	Significant overall because resulted in less exposure to infectious agents or index cases

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Early partner number messages

Changed prevention thinking post-2000

Low technology interventions

Safer sex education

Fewer sexual partners

Altered sexual repertoires

'Negotiate safety agreements'

Condom usage

HIV testing

High technology interventions

Risk reduction behavioural strategies

Negotiating medical knowledge (e.g. Viral loads and strategic positioning)

Poz-poz sex

Increased uptake of testing

ARV treatment

Post-exposure prophylaxis

Pre-exposure prophylaxis

STI screening

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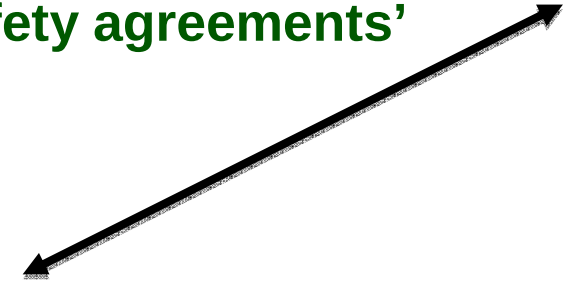

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Some relevant background

HIV notification rates converging in the 3 eastern states and holding steady (~1000/yr)

- No change in proportions recently tested for HIV(~80% in last year)
- Indirect partner number messages part of HIV/STI campaigns since 2000

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4 Key Data Sources

- Gay Community Periodic Surveys (GCPS)
  - Annual behavioural surveillance in Sydney, Melbourne & Queensland (1998 – 2006)
- Health in Men (HIM) Cohort
  - Prospective cohort with HIV incidence and changes in UAI as main outcomes (2002 -2007)
- Positive Health (pH) Cohort
  - Prospective cohort of HIV-positive MSM examining sexual behaviour, STI and treatment experience (1998 -2007)
- Three or More Study (TOMS) Survey
  - Cross-sectional community survey involving web and P & P questioning (2008)

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Key sexual practice changes

- Relationships with men
- Number of partners
- Unprotected anal intercourse /regular partners (UAIR)
- Unprotected anal intercourse /casual partners (UAIC)
- Disclosure and other risk reduction practices

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Relationships with men

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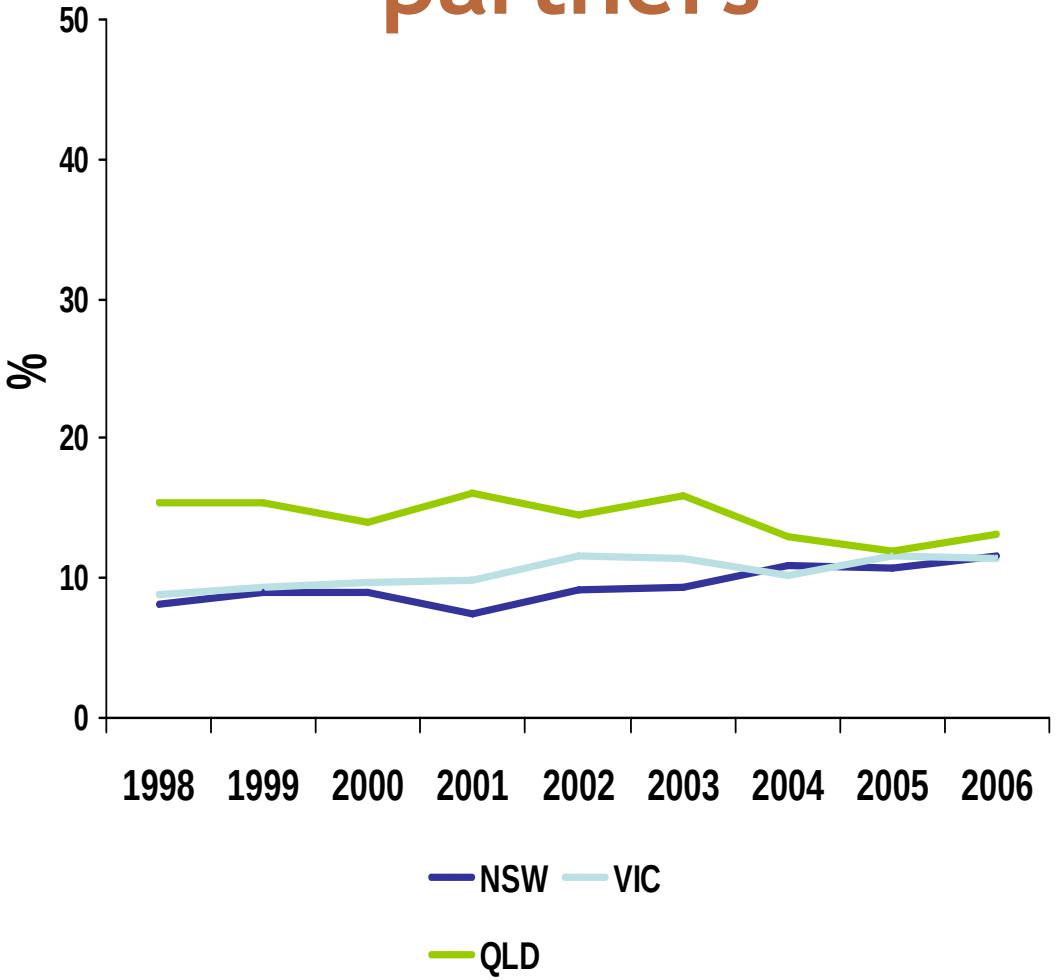
Men who reported no current sex partners



Source: NSW, VIC and QLD Periodic surveys, 1998-2006, men aged 30-49

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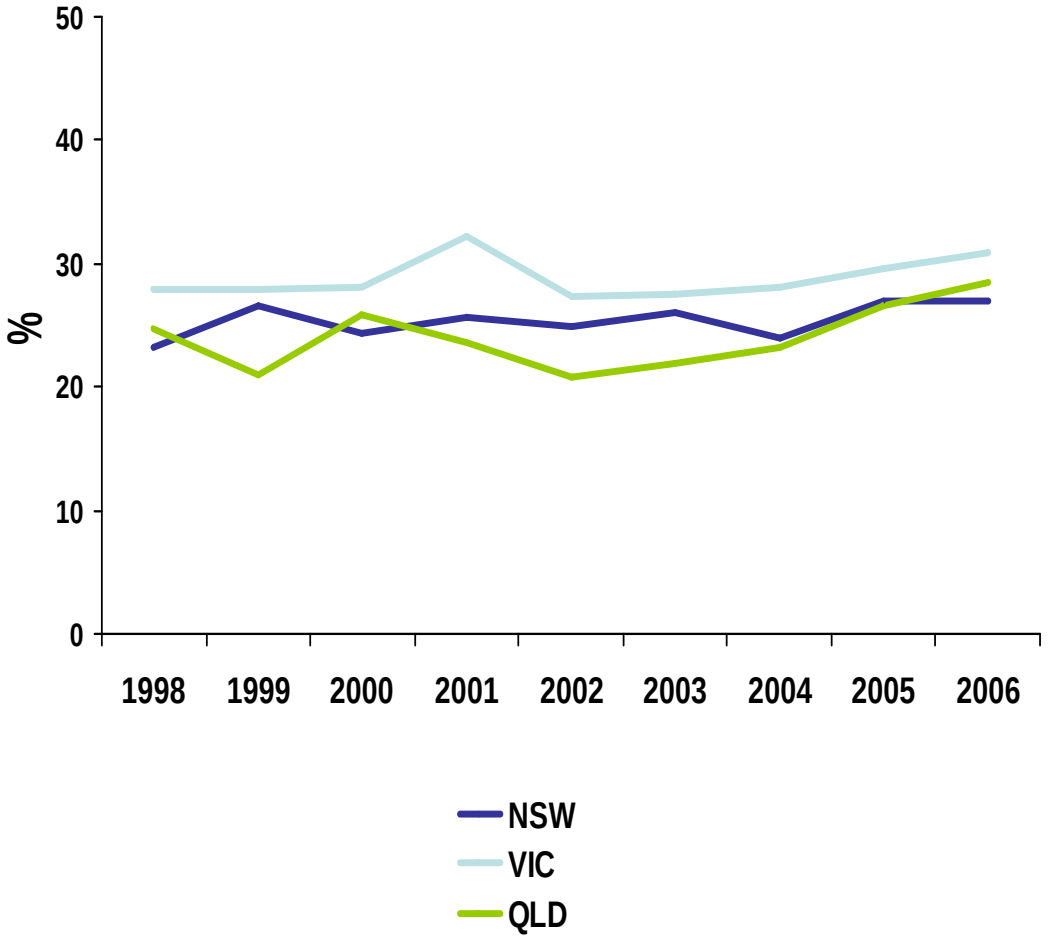
Men in monogamous relationships



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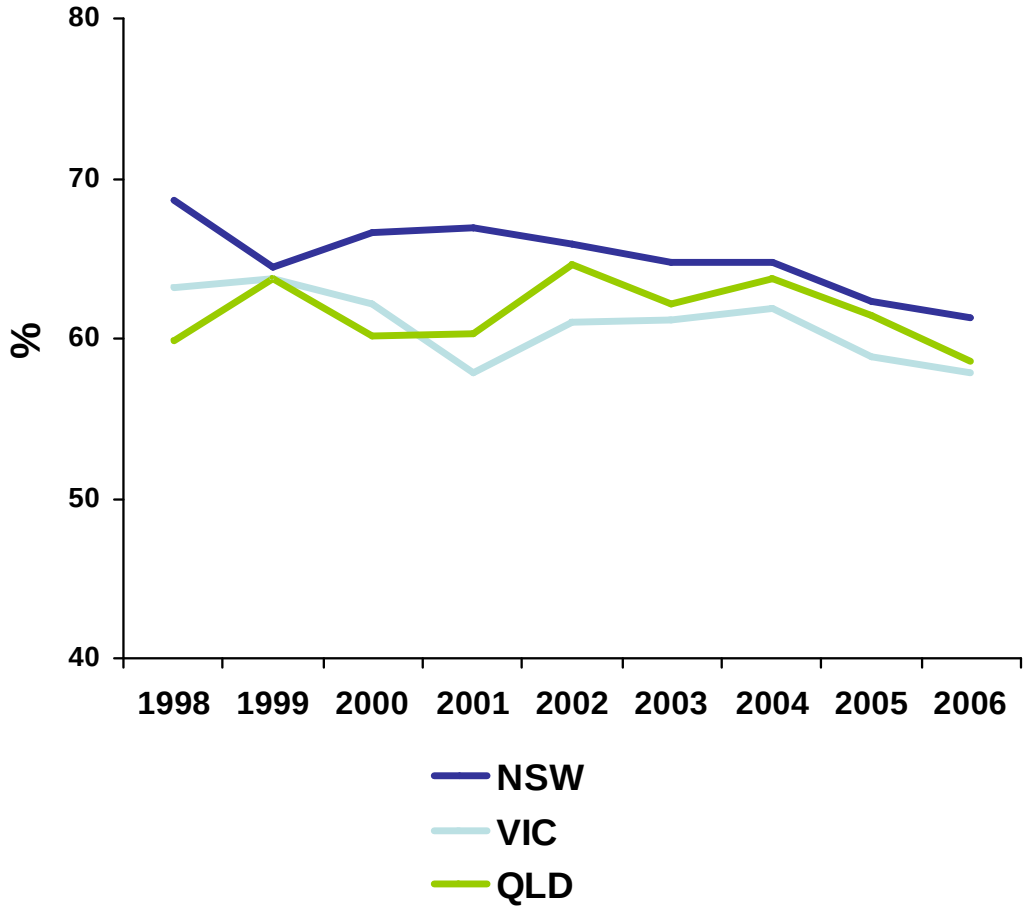
Men who reported having casual partners



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Number of sexual partners

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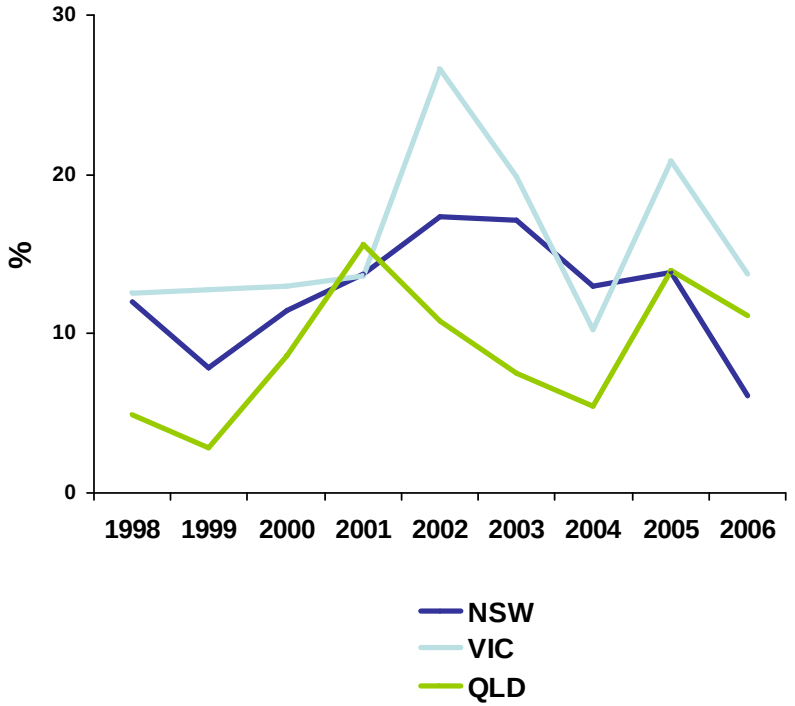
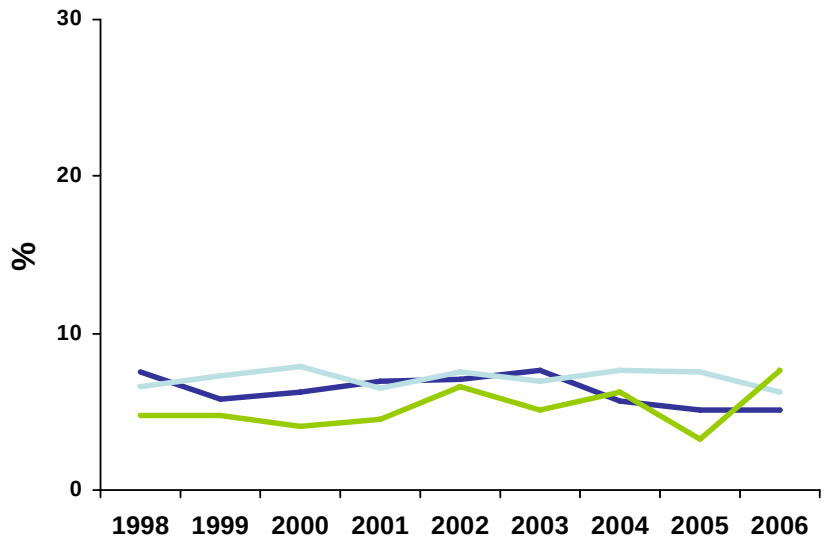
Proportion of men who had 50+ partners in the past 6 months

HIV positive men



HIV negative and unknown-serostatus men



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Unprotected anal intercourse

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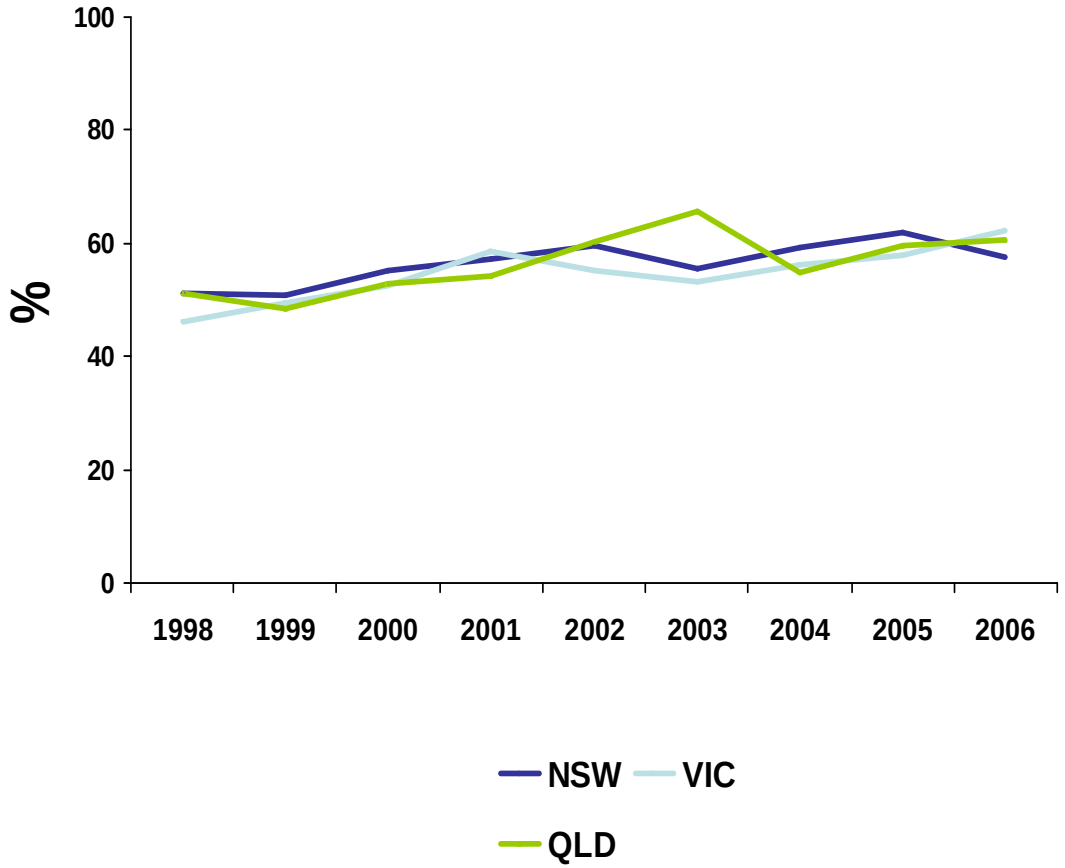
Unprotected anal intercourse with regular partners (UAIR)

Note: the sample includes only men who had sex with regular partners



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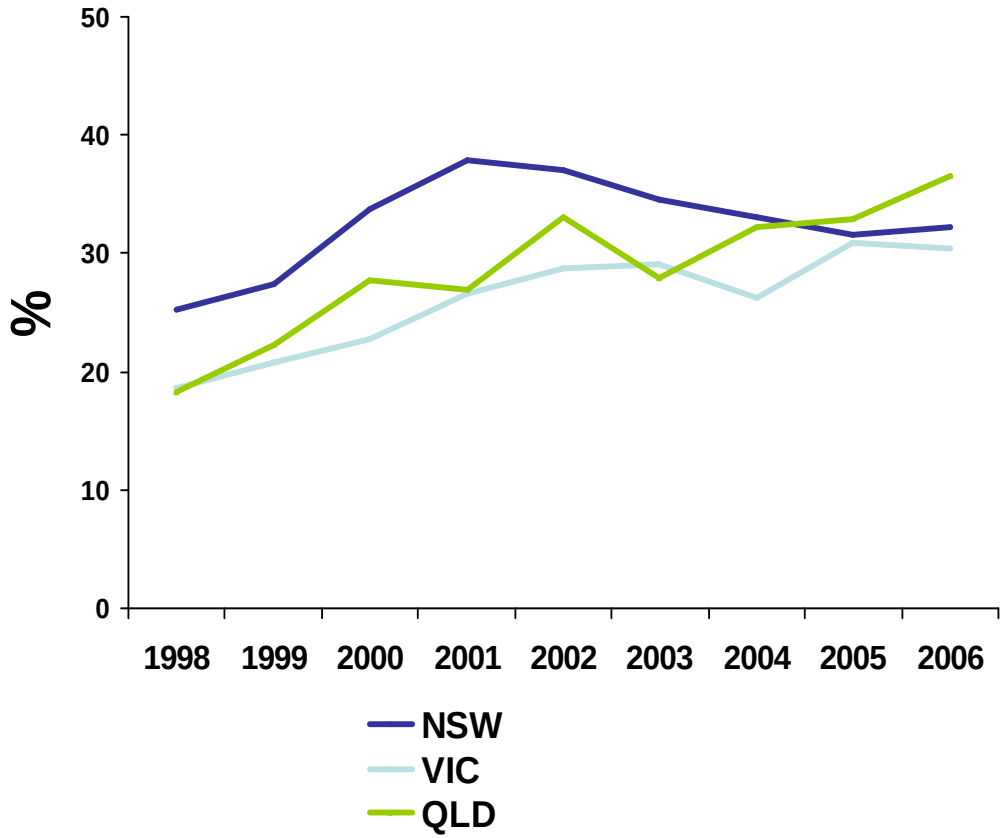
Unprotected sex with casual partners (UAIC)

Note: the sample includes only men who had sex with casual partners



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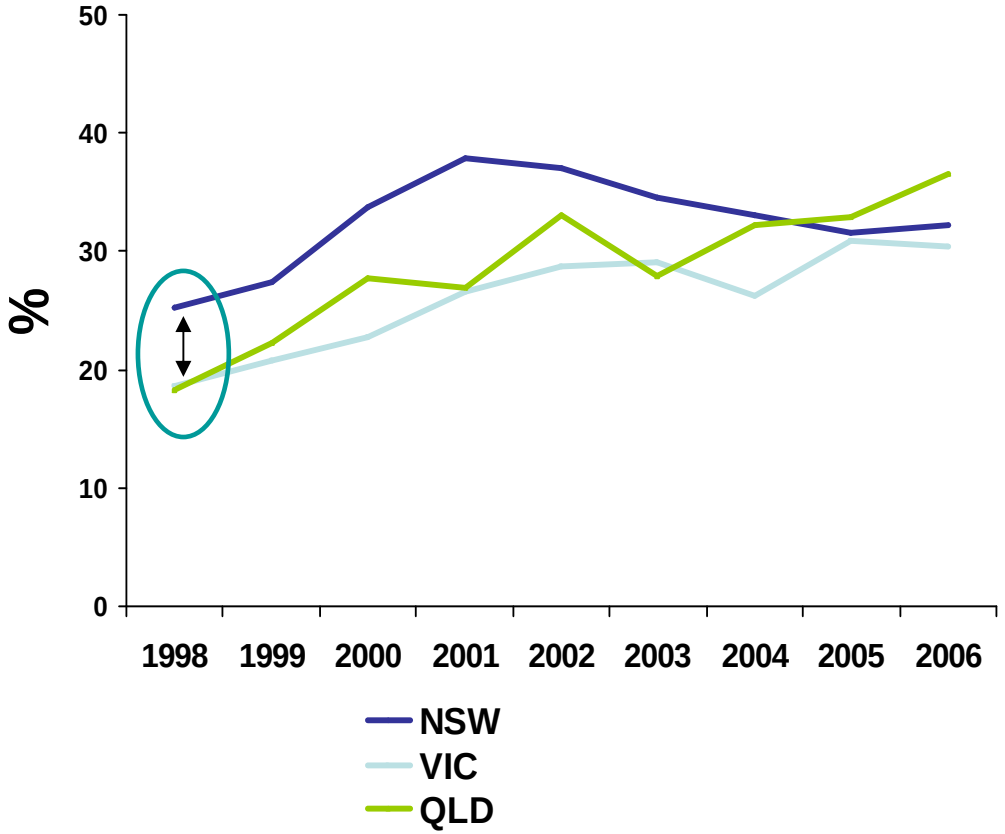

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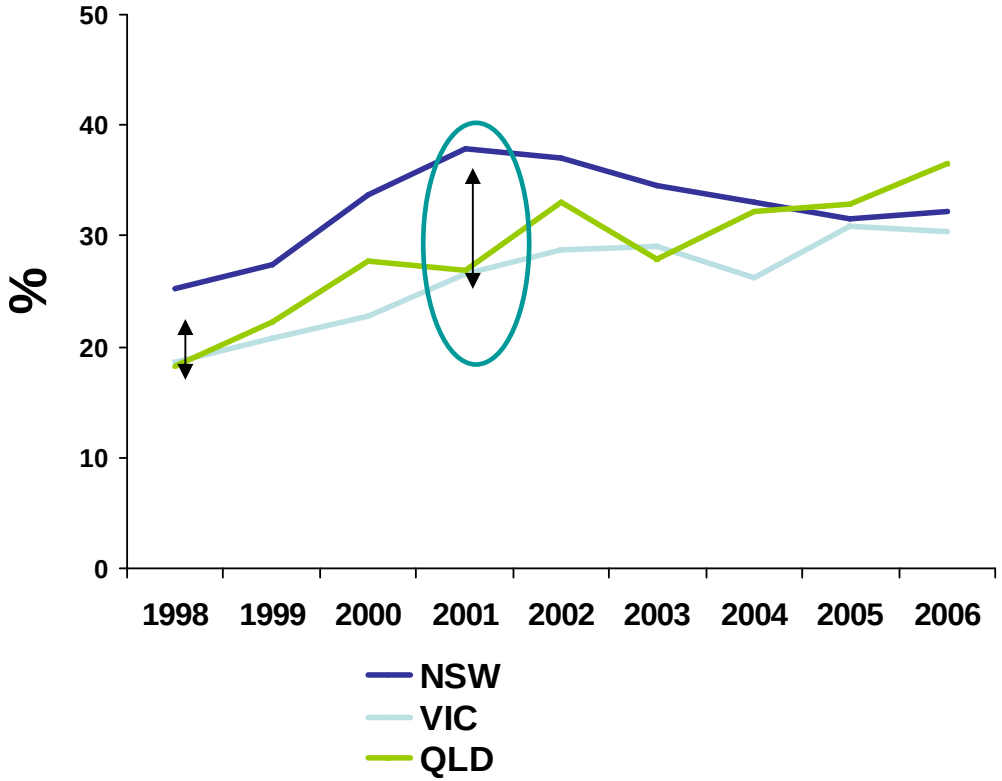

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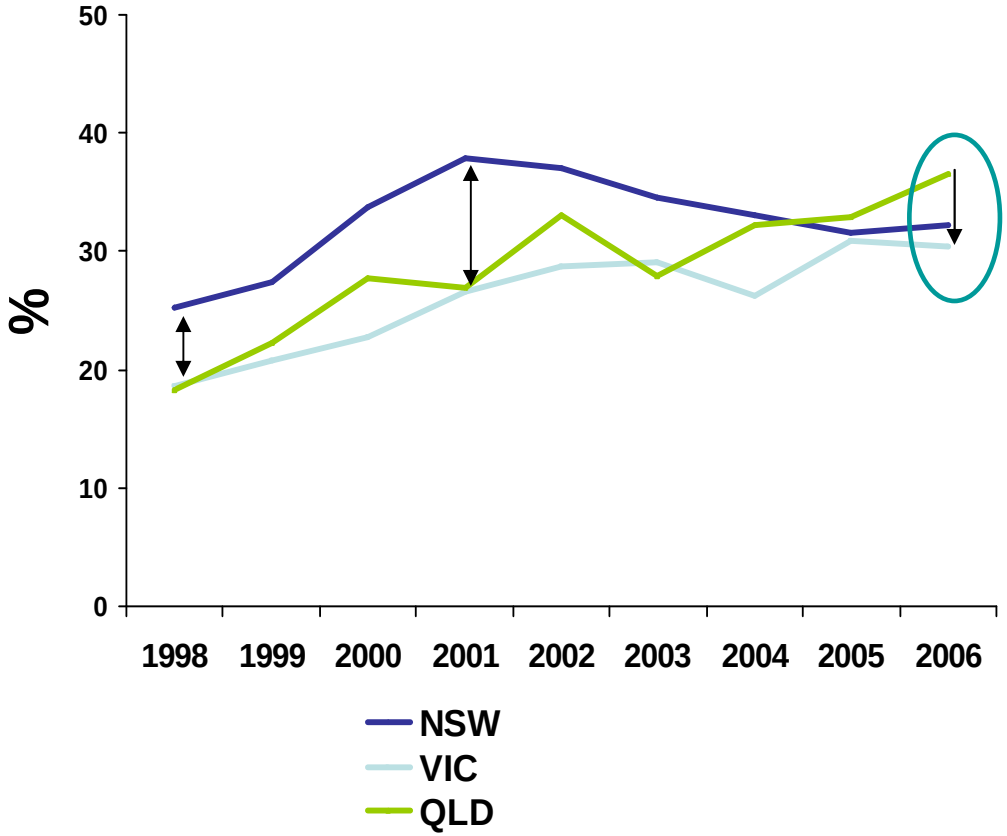

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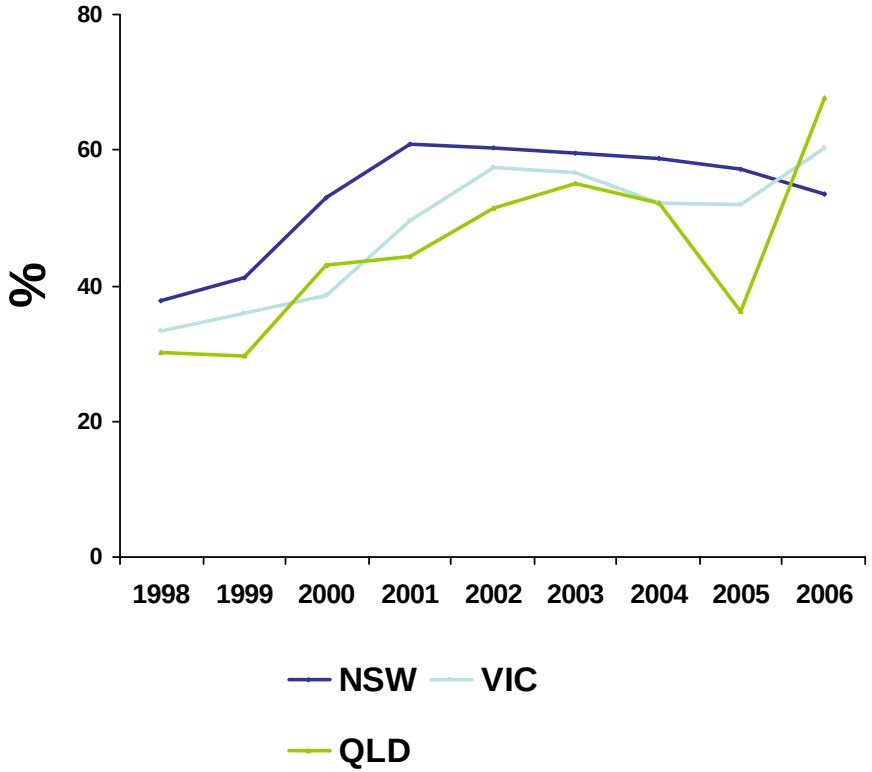
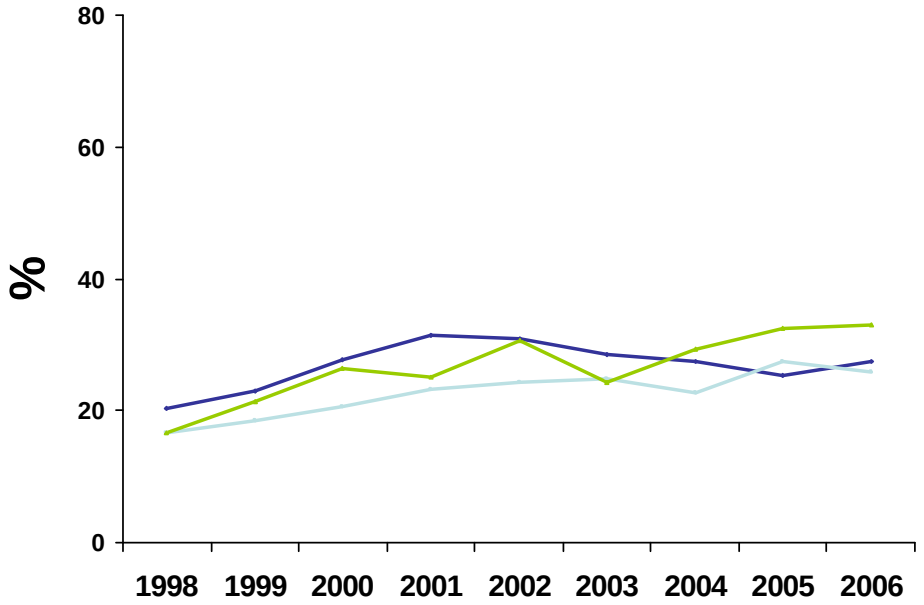
UAIC, by HIV serostatus of respondents

HIV positive men



HIV negative and unknown-serostatus men



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Disclosure

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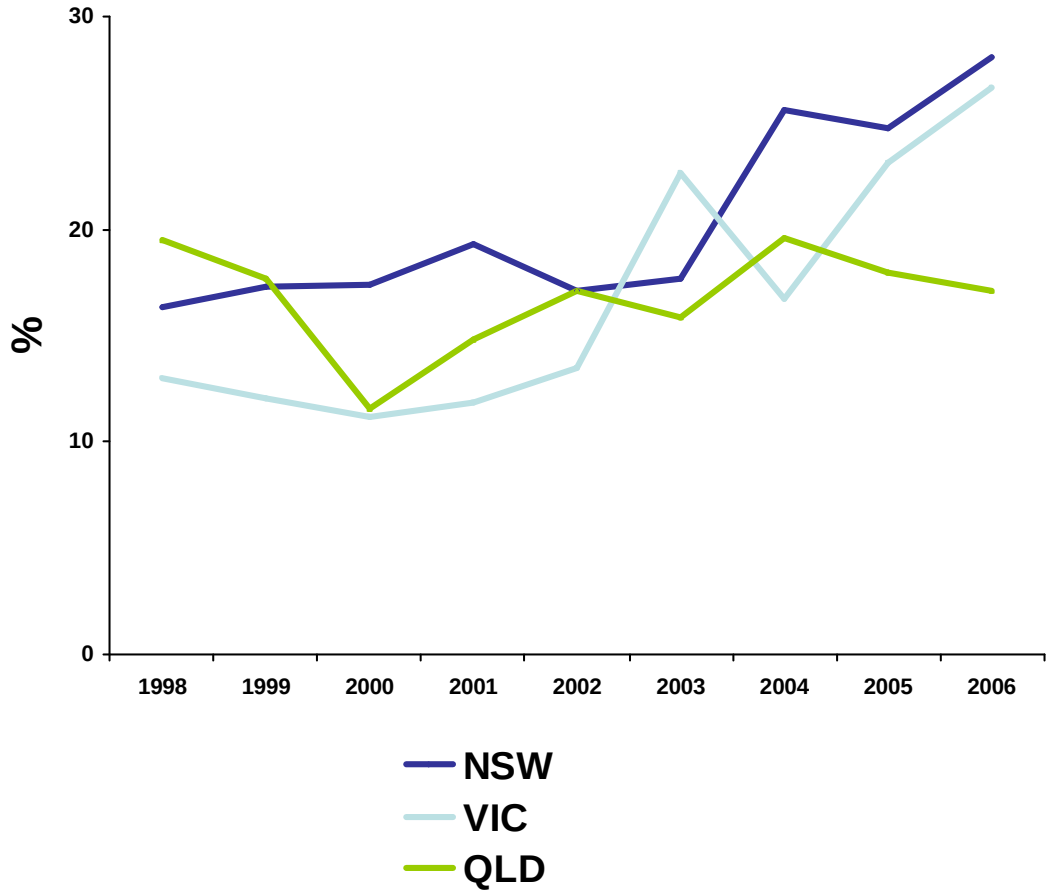
Men who reported UAIC and always disclosed serostatus



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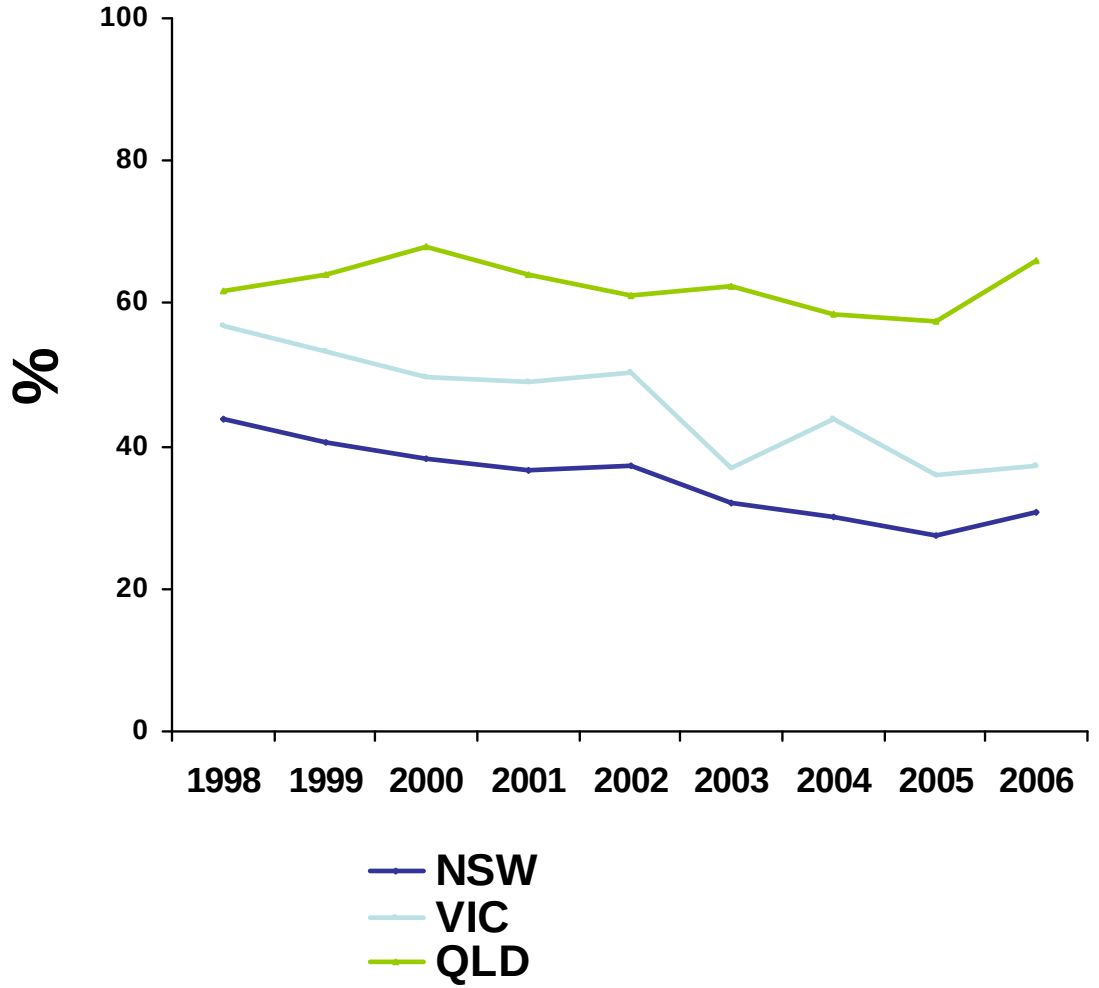
Men who reported UAIC and never disclosed serostatus



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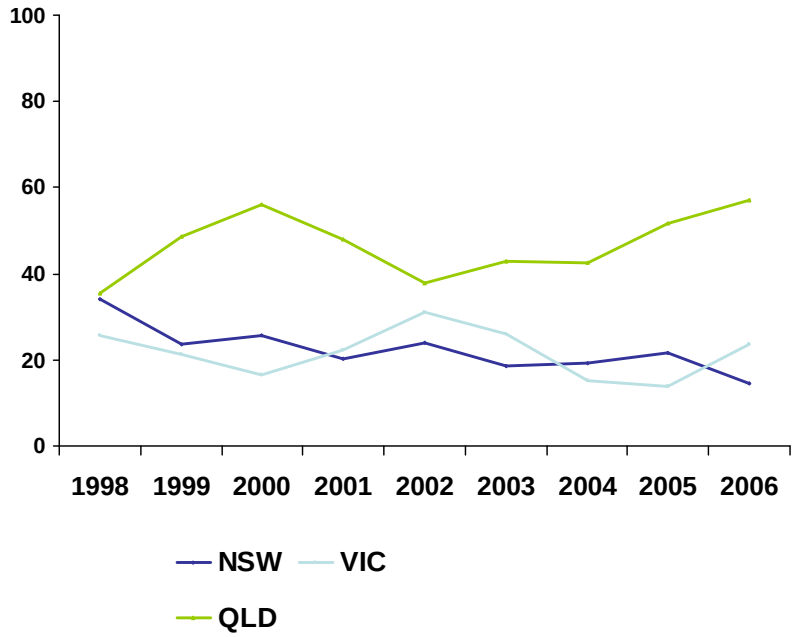
Men who never disclosed serostatus in the context of UAIC, by serostatus

HIV positive men



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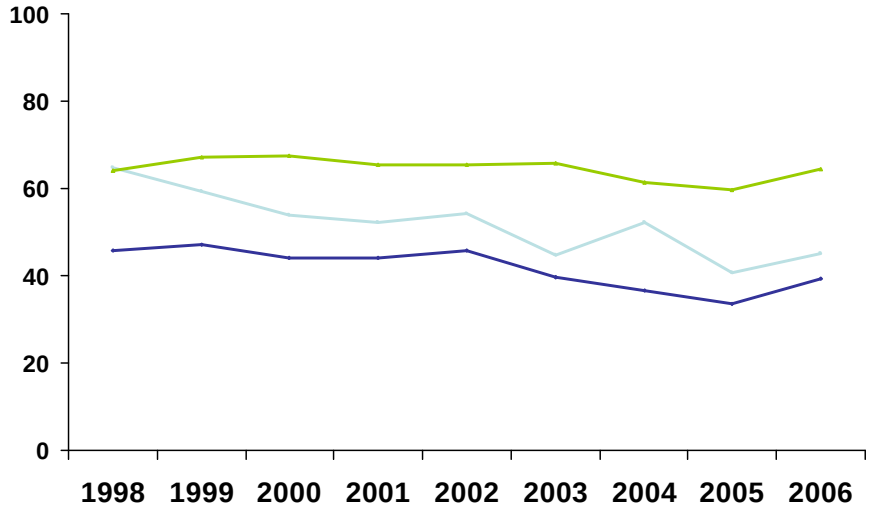

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Effectiveness of Risk Reduction Behaviours

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Overall effectiveness of RRBs

	n	Incidence (per 100PY)	HR	95% CI	P value
No UAI	**7**	**0.34**	**1**	**---**	**<0.001**
Of RRBs*	**27**	**0.99**	**3.01**	**1.31-6.92**	
Other patterns of UAI	**13**	**3.56**	**10.83**	**4.31-27.17**	

*** Negotiated safety, sero-sorting, strategic positioning, withdrawal**

- 88% of total follow-up where UAI occurred
- 63% of total seroconversion
- Relative risk to other patterns of UAI (HR=0.28, 95% CI 0.14-0.54)

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Risk Reduction Behaviours in HIM

- RRBs were very common in HIV negative men
- Compared with no UAI, negotiated safety and strategic positioning were not associated with increased HIV risk
- Each of the RRBs examined was associated with an intermediate HIV risk between that of no UAI and that of other patterns of UAI
- In the presence of serosorting/disclosure other RRBs are unlikely

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Practices among those with recent multiple partner events / group sex

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Among those with recent multiple partners …..

- About 25% of all men reported UAI at last group sex event with other than their regular partner
- Serosorting/disclosure and withdrawal were the most common risk reducing practices in UAI
- HIV-neg men most likely to use strategic positioning /withdrawal
- Men with group sex experiences had higher rates of recent HIV and STI testing and in GCPS

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Summary

Overall Australia has seen a much smaller increase in HIV notifications in MSM than other industrialised countries

Trends in partnership and sexual practice suggest:

- Explanation for increases comes from relatively small changes that have incremental impact
- No suggestion that partner numbers and concurrency are becoming more popular or centrally implicated
- However, growing popularity of risk reduction behaviours (RRBs) and use by some HIV-neg men particularly

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Implications for prevention

- Integrate technology and behavioural prevention messages and strategies
- Concurrency messages can be positive
- Innovative structural and sexual network interventions can limit risk associated with multiple partners
- Understand and support accurate use of risk reduction behaviours

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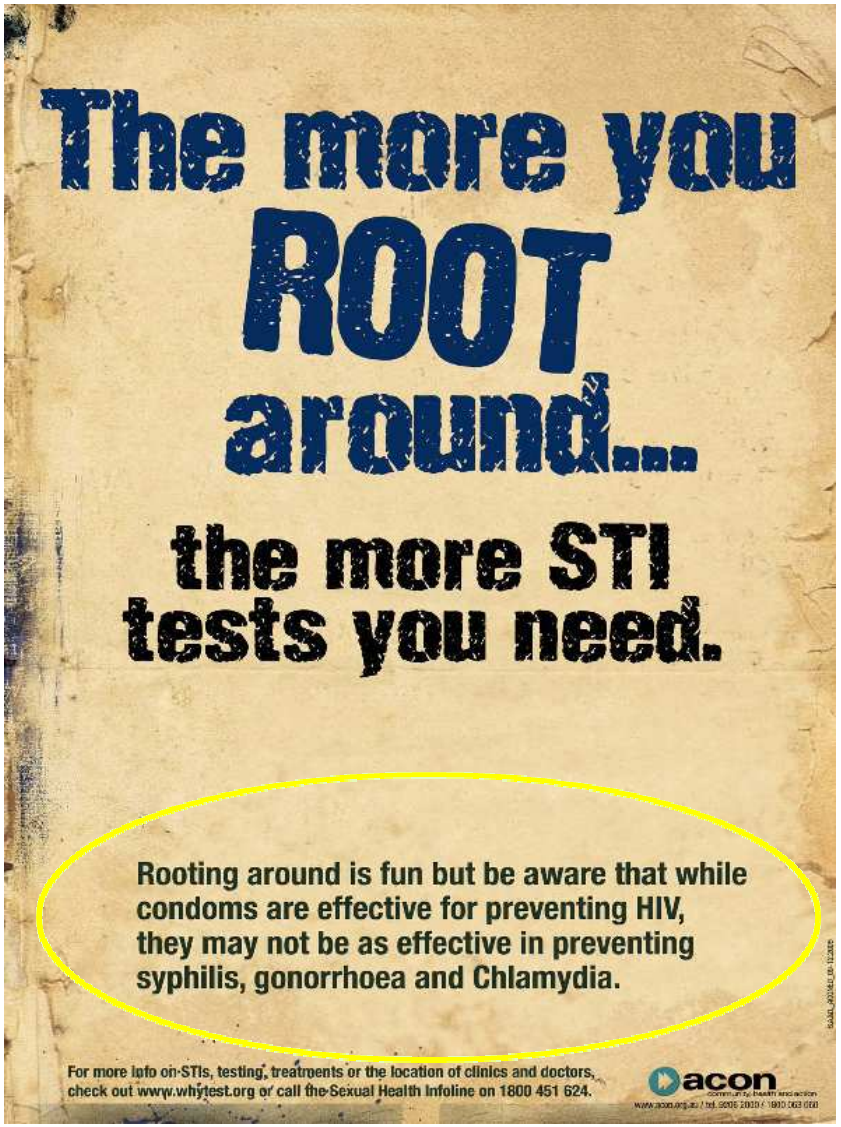
Integrate technology and behavioural prevention messages and strategies

HIV-prevention information whether about behaviours or technology 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 part of everyday life.

For example, condom use becomes normative within communities and populations – *one has to explain why one is not using a condom, not vice versa. The same can happen even more easily with technology (e.g. PrEP)*

But normative practices can be fragile when poorly supported or undermined by external developments.

Concurrency messages can be sex positive



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Structural Interventions

Example: Using regulation of sex clubs / sex on premises venues to limit opportunities for onward HIV transmission by modifying the environment within these spaces California 2004 –

- Require explicit policy statement prohibiting UAI
- Removing private rooms; recommending lighting levels
- Condom and lube dispenser for every 3.3 m^2 of floor space
- ‘Chill-out ‘ spaces with health information/services
- Distribute health information on patron departure

  (e.g. availability of PEP and location of STI services)

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Structured Sexual Network Interventions

Individual-focused interventions are unlikely to alter the relationship between high- and lower-risk individuals or the structure of risk in environments

AIMS and PRINCIPLES:

- Alter / 'fracture' some sexual network structures
- Focus on institutions that facilitate extended partner mixing or that disrupt ecologies of communities (e.g. prison systems)
- Fragment extended networks (e.g. sex clubs) by pulling low- and high-risk individuals apart or encouraging assortative mixing (e.g. 'specialist' websites)
- Maintain basic human rights

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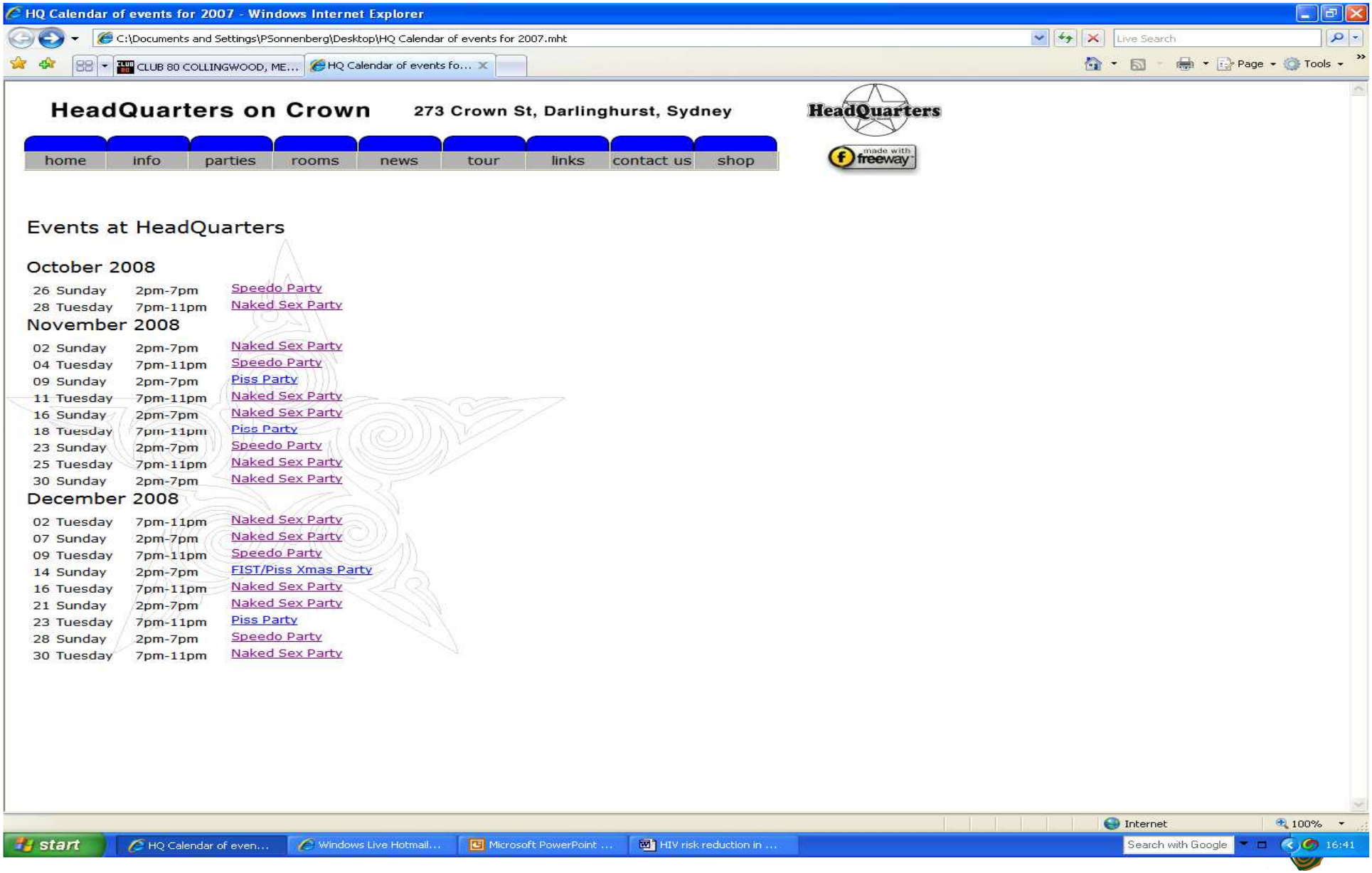
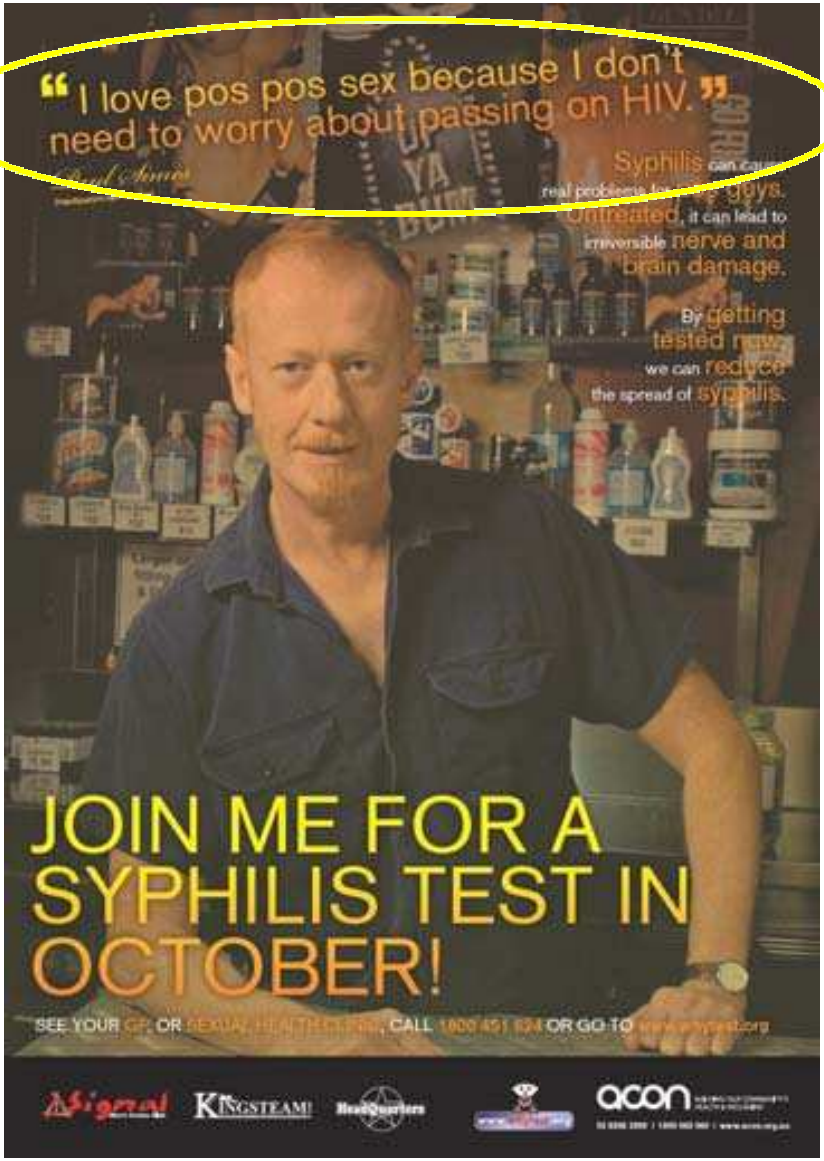
Fetish Parties - Fragment Extended Sexual Networks & Promote Assortative Partner Mixing



Promote collective action



Support appropriate risk reduction behaviours

We understand relative efficacy of risk reduction behaviours but little about how they are employed

Key questions:

- Understanding of relative efficacy
- Determinants - rules or context
- Understanding negotiation/disclosure
- Understanding fallibility of different strategies
- Knowledge of secondary strategies – e.g.PEP

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Conclusions

- Evolving partnership patterns and changing sexual practice require an adaptive prevention response

- In Australian context partner reduction messages are part of the integrated response and would of little benefit on their own

- Other components are needed and driven by:
    - Embracing technology and the bio-medical
    - Local knowledge and social understandings
    - Supporting MSM communities in transition

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