Suggested Reference


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HIV epidemiology and behavioural outcomes – towards control?

Satellite session:
Primary prevention of HIV among gay men: why do we need it?

Dr Peter Saxton
Director, Gay Men’s Sexual Health research group

AIDS 2014 Melbourne 20-25 July
Main messages

• Low HIV prevalence and steady HIV diagnoses

• Sexual partner patterns for MSM are complex

• Condom use high

• Attitudes about condoms affirmative
Annual numbers newly reported with HIV in New Zealand, 1985-2013 by mode of transmission

Source: AIDS Epidemiology Group, Department of Preventive and Social Medicine, University of Otago.
Note: Includes HIV cases newly reported by Western Blot antibody testing and viral load testing.
Annual numbers newly diagnosed with HIV in New Zealand, 1996-2013 by place of infection

Source: AIDS Epidemiology Group, Department of Preventive and Social Medicine, University of Otago.
Note: Includes HIV cases newly diagnosed by Western Blot antibody testing and viral load testing.
HIV transmission in NZ concentrated among MSM

Total NZ population
- Gay/bisexual men
- Other

~2.5%

HIV acquired in NZ in 2013
- Gay/bisexual men
- Other/unknown

78%

Note: (1) Includes both homosexual/bisexual and homosexual/bisexual/IDU
(2) In 2013, 90 people diagnosed with HIV were thought to have been infected in New Zealand of whom 70 (77.7%) were MSM.
Source: AIDS Epidemiology Group, Department of Preventive and Social Medicine, University of Otago on 12 June 2014.
HIV prevalence in MSM ~ 5%

<table>
<thead>
<tr>
<th>Group</th>
<th>% HIV +</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>4.41</td>
</tr>
<tr>
<td>People who inject drugs (non-MSM)</td>
<td>0.32</td>
</tr>
<tr>
<td>Heterosexual men</td>
<td>0.12</td>
</tr>
<tr>
<td>Heterosexual women</td>
<td>0.14</td>
</tr>
<tr>
<td>Current sex worker</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Sentinel sexual health clinics 2005/6

<table>
<thead>
<tr>
<th>Group</th>
<th>% HIV +</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM (AKL)</td>
<td>6.0</td>
</tr>
<tr>
<td>MSM (NZ, Not AKL)</td>
<td>4.8</td>
</tr>
<tr>
<td>MSM (Not NZ)</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Gay community venues 2011 (Auckland)*

*overall 1.3% undiagnosed


In lowest third of countries, per capita HIV diagnoses among MSM

"Late" HIV diagnoses among MSM with CD4 <350 in northern European countries*, Australia and NZ (2005-10)

% CD4<350

- Denmark
- France
- Netherlands
- United Kingdom
- Australia
- New Zealand

* For which CD4 information available for >50% new diagnoses


Undiagnosed HIV infection among MSM

% +ve undiagnosed


Increase in HIV testing among MSM

% Ever tested (location-based surveys)

- 2002
- 2004
- 2006
- 2008
- 2011
- 2014 *

Transmission rate declining

Estimated no. MSM living with diagnosed HIV

HIV incidence : prevalence pool ratio among MSM


Source: Saxton et al. ISSTDR, 2009 Jun 28–Jul 1, London. (updated estimates)
Reproductive rate = \( \beta \cdot c \cdot D \)

- Average probability of transmission per contact
- Sexual contact patterns
- Duration of infectiousness
- Anal sex / condom use
- Sexual connectivity
Gay Auckland Periodic Sex Survey (GAPSS)

Recruitment at Big Gay Out, then bars and sex-on-site (SOS) venues simultaneously over subsequent week.

Gay men’s Online Sex Survey (GOSS)

Recruitment starts after GAPSS on Internet dating sites.
Short gap length
No. of male sexual partners <6 months

GAPSS (n=7,286)

GOSS (n=2,382)

Sexual partnering is complex

GAPSS (n=7,013)
- No sex with a man
- One regular only
- 2+ regulars only
- 2+ regulars and casual sex
- One regular and casual sex
- Casual sex only

GOSS (n=2,308)
- No sex with a man
- One regular only
- 2+ regulars only
- 2+ regulars and casual sex
- One regular and casual sex
- Casual sex only

Concurrency is common

GAPSS (n=2940)

Sexual exclusivity among MSM who have a current regular partner (BF or FB)

GOSS (n=714)

Denominator is respondents with a current regular sex partner of at least 6 months duration.
Concurrency is common

GAPSS (n=2940) Sexual exclusivity among MSM who have a current regular partner (BF or FB)

GOSS (n=714)

Denominator is respondents with a current regular sex partner of at least 6 months duration.
Condom use
During anal intercourse with casual partner/s <6 months

Response options: “always”, “almost always”, “about half the time”, “very rarely”, “never”. Separately for insertive and receptive anal intercourse.

Source: GAPSS. * preliminary data
Condom use

During anal intercourse with casual partner/s <6 months

Response options: “always”, “almost always”, “about half the time”, “very rarely”, “never”. Separately for insertive and receptive anal intercourse.

Source: GAPSS. * preliminary data
**Attitudes**

"Condoms are OK as part of sex"

**GAPSS**

Response options: "strongly agree", "agree", "disagree", "strongly disagree".


"I would sometimes rather risk HIV than use a condom for anal sex"

**GOSS**

Response options: "strongly agree", "agree", "disagree", "strongly disagree".

**Attitudes**

"I don’t like condoms because they reduce sensitivity"

Response options: "strongly agree", "agree", "disagree", "strongly disagree".


"HIV/AIDS is a less serious threat than it used to be because of new treatments"

Response options: "strongly agree", "agree", "disagree", "strongly disagree".

Attitudes

“I would never be willing to use condoms for anal sex”

Response options: “strongly agree”, “agree”, “disagree”, “strongly disagree”.

Condom use at first sex

By year of first anal intercourse

Source: GAPSS; GOSS. Question asked in 2006 survey round n=2834
Thanks

A/Prof Nigel Dickson; Director, AIDS Epidemiology Group, University of Otago

Tony Hughes; Scientific Director, NZAF
Acknowledgements

**AIDS Epidemiology Group data**
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**GAPSS / GOSS behavioural surveillance study**
A/Prof Nigel Dickson (AEG), Tony Hughes (NZAF)  
14,841 responses from participants 2002-2014

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Photographs courtesy of NZAF, Charlie Hautono.