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University College London
Do MSM test for STIs/HIV as per 2016 national guidelines and what factors influence testing?
Findings from a large online community-based survey in England

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On behalf of:
David Reid, Dr Peter Weatherburn, Stella Fabiane, Paula Blomquist,
Dr Catherine Mercer, Dr Gwenda Hughes
Background

- MSM continue to be disproportionately affected by STIs & HIV

- New HIV diagnoses sourced from the HIV and AIDS Reporting System (HARS). All other data from specialist and non-specialist SHS (GUMCAD returns)
- * First episode; **Includes diagnoses of primary, secondary & early latent syphilis
- Chlamydia data from 2012 onwards are not comparable to data from previous years (please see ‘Notes’ slide for more details)
- Data type: service data

UK national sexual health care among MSM guidelines 2016: STI/HIV testing

HIV-ve MSM

Annual STI including HIV testing among all sexually active men

3 monthly STI (HIV) testing: ‘at-risk’
- >10 sexual partners in last 12m
- Condomless anal sex with unknown/serodifferent HIV status partner in last 12m
- Multiple or anonymous partners since last tested
- Any unprotected sexual contact with a new partner since last tested
- Drug use during sex over last 6 months

*Clutterback et al, Int J STD & AIDS 2017
**UK national sexual health care among MSM guidelines 2016: STI/HIV testing**

**HIV-ve MSM**

- Annual STI including HIV testing among all sexually active men

**HIV+ve MSM**

- Syphilis serology annually in sexually active men

**3 monthly STI (HIV) testing: ‘at-risk’**

- >10 sexual partners in last 12m
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*Clutterback et al, Int J STD & AIDS 2017*
Aims

Qs 1. Does STI (and HIV) testing behaviour among MSM reflect national STI/HIV testing guidelines:
   a. for annual testing
   b. for 3 monthly testing among men ‘at-risk’ of STIs/HIV

Qs 2. Is STI knowledge and engaging in at-risk behaviours associated with STI/HIV testing among MSM?
Methods

• Online survey: March-May 2017 in UK
• Recruitment: gay-orientated dating websites (Grindr/Scruff/Gaydar)
• Men aged >15 & sexually active in the last 12m
• Engagement in at-risk behaviours:

HIV-ve MSM

• >10 sexual partners in last 12m
  • Condomless anal sex with unknown/serodifferent HIV status partner in last 12m
  • Multiple or anonymous partners since last tested
  • Any unprotected sexual contact with a new partner since last tested
  • Drug use during sex over last 6 months

HIV+ve MSM

• >10 sexual partners in last 12m
  • Condomless anal sex with other HIV+ MSM
  • Men <20 years
  • Recreational drug use associated with sex/chemsex
Methods

11 TRUE statements: transmission/symptoms/treatment STIs and HIV
## Methods

### 11 TRUE statements: transmission/symptoms/treatment STIs and HIV

The chances of HIV being passed on during sex between men are greater if either man has certain STIs.

1. *I knew this*
2. *I wasn’t sure about this*
3. *I didn’t know this*
4. *I don’t understand this*
5. *I don’t believe this*

• Choose one of these responses for each of the 11 true statement
Methods

11 TRUE statements: transmission/symptoms/treatment STIs and HIV

The chances of HIV being passed on during sex between men are greater if either man has certain STIs.

1  I knew this
2  I wasn’t sure about this
3  I didn’t know this
4  I don’t understand this
5  I don’t believe this

- Scored ‘1’ for each statement they ‘knew’
- Scores <6 treated as having “low” STI knowledge
Data analysis

• Men reporting ≥1 ‘at-risk’ behaviour(s) in the last 3m were treated as ‘being at-risk of STI (and HIV)’
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• Examined differences among HIV-ve and HIV+ve men ($\chi^2$ tests)
  • STI knowledge
  • At-risk behaviours
  • Testing
Data analysis

• Men reporting ≥1 ‘at-risk’ behaviour(s) in the last 3m were treated as ‘being at-risk of STI (and HIV)’

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  • STI knowledge
  • At-risk behaviours
  • Testing

• Multivariate logistic regression models separately for HIV-ve & HIV+ve men:
  • STI testing (outcome), and STI knowledge and engaging in at-risk behaviours
  • Adjusting for confounders: age, ethnicity, education
  • Adjusted odds ratios (aOR) were calculated
## Study sample

<table>
<thead>
<tr>
<th></th>
<th>HIV-ve MSM (n=3157)</th>
<th>HIV+ve MSM (n=489)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age (IQR)</td>
<td>44 (32-53)</td>
<td>48 (39-54)</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Non-white ethnicity</td>
<td>10%</td>
<td>5%</td>
<td>p=0.015</td>
</tr>
<tr>
<td>Education: degree &amp; above</td>
<td>52%</td>
<td>50%</td>
<td>P=0.404</td>
</tr>
</tbody>
</table>
Results

Qs 1. Does STI (and HIV) testing behaviour among MSM reflect national STI/HIV testing guidelines:
   a. for annual testing
   b. for 3 monthly testing among at-risk men
Annual STI/HIV testing among MSM by HIV status

HIV-ve (N=2788)
Annual STI/HIV testing among MSM by HIV status

- 52% of HIV-negative individuals have annual STI/HIV testing.
- 16% of HIV-negative individuals have never tested for HIV.

HIV-ve (N=2788)
Annual STI/HIV testing among MSM by HIV status

- HIV-ve (N=2788): 52%
- HIV+ (N=434): 75%

p<0.001
RESULTS

Qs 1. Does STI (and HIV) testing behaviour among MSM reflect national STI/HIV testing guidelines:
   a. for annual testing
   b. for 3 monthly testing among at-risk men
At-risk behaviours in the last 3m by HIV status

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<tr>
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</tr>
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<td>69%</td>
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<tr>
<td>&gt;1 new partner</td>
<td>65%</td>
<td>68%</td>
<td>p=0.25</td>
</tr>
<tr>
<td>Recreational drug use (last 12m)</td>
<td>9%</td>
<td>25%</td>
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</tr>
<tr>
<td>Condomless anal sex with unknown/serodifferent HIV status partners</td>
<td>12%</td>
<td>*18%</td>
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*Only among men who were not on ART or had a detectable viral load*
At-risk behaviours in the last 3m by HIV status

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<td>12%</td>
<td>*18%</td>
<td>NA</td>
</tr>
<tr>
<td>Engagement in ≥1 ‘at-risk behaviours’</td>
<td>57%</td>
<td>74%</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Only among men who were not on ART or had a detectable viral load*
STI/HIV testing in last 3 months: at-risk men

P-value < 0.001

- HIV-ve (N=1413): 35%
- HIV+ve (N=280): 53%
Qs 2. Is STI knowledge and engaging in at-risk behaviours associated with STI/HIV testing among MSM?
STI knowledge, at-risk behaviours and testing in 3m: HIV-ve MSM (N=2788)
STI knowledge, at-risk behaviours and testing in 3m: HIV-ve MSM (N=2788)

Low STI knowledge (47%)

At-risk men with higher STI knowledge but had not tested

At-risk (57%)

At-risk men who had low STI knowledge and had not tested

Tested (30%)
Association between STI/HIV testing in last 3m, knowledge and behaviours: HIV-ve MSM (n=2788)

• Engaging in at-risk behaviours was independently associated with STI/HIV testing as these men were more likely to test

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<th></th>
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<th>Not tested</th>
<th>AOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at-risk</td>
<td>25%</td>
<td>75%</td>
<td>1</td>
</tr>
<tr>
<td>At-risk</td>
<td>34%</td>
<td>66%</td>
<td>1.53 (1.29-1.82)</td>
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Association between STI/HIV testing in last 3m, knowledge and behaviours: HIV-ve MSM (n=2788)

- Engaging in at-risk behaviours was independently associated with STI/HIV testing as these men were more likely to test
- STI knowledge independently associated with STI/HIV testing as those with low knowledge were less likely to test

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<tr>
<td>STI knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>35%</td>
<td>65%</td>
<td>1</td>
</tr>
<tr>
<td>Low</td>
<td>24%</td>
<td>76%</td>
<td>0.58 (0.49-0.69)</td>
</tr>
</tbody>
</table>
STI knowledge, at-risk behaviours and testing: HIV+ve MSM (N=434)
STI knowledge, at-risk behaviours and testing: HIV+ve MSM (N=434)

Low STI knowledge (21%)

At-risk men who had low STI knowledge and had not tested

(9%)

At-risk (74%)

Tested (46%)

At-risk men with higher STI knowledge but had not tested

(27%)
4 key messages

1. Annual STI/HIV testing among sexually-active MSM, and in last 3m among MSM at-risk of STIs/HIV remains below recommended standards, esp among HIV-ve MSM.

2. Knowledge about STIs and risk perception is low, esp among HIV-ve MSM

3. Engaging in at-risk behaviours is independently associated with STI/HIV testing in MSM

4. STI knowledge is independently associated with STI/HIV testing in HIV-ve MSM
Strengths and limitations

• Online recruitment:
  o sample is not representative of all MSM
  o But enabled recruitment of MSM across the UK

• Anonymous self-reported data

• No data on previous STI diagnosis/biological data
Implications for policy and practice

• Recall MSM @3m for STI/HIV testing
  • Engaging in at-risk behaviours

• Reminders on electronic patient records about annual testing for HIV+ve MSM

• Online platform of dating sites can be used to promote STI risk reduction and knowledge, and encourage testing among men at-risk of STIs/HIV:
  • Bristol University (HPRU)

Harte et al, Brook et al, Evelyn et al, Gabarron and Wynn
Thank all the study participants

Thank you to ViiV Healthcare UK for the travel bursary