Seminar 2: Opt out testing in areas of high prevalence and in groups at higher risk
HIV in the United Kingdom: 2015

New HIV diagnoses

HIV and AIDS reporting section
Public Health England
Number of people newly diagnosed with HIV by exposure group: United Kingdom, 2005 - 2014

Values are adjusted for missing exposure group where stated.
Proportion of people newly diagnosed with HIV by PHE centre of diagnosis and exposure group: England, 2014

- Men who have sex with men
- People who injects drugs
- Heterosexual men and women
- Undetermined
- Other

<table>
<thead>
<tr>
<th>Region</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>2,671</td>
</tr>
<tr>
<td>East of England</td>
<td>380</td>
</tr>
<tr>
<td>East Midlands</td>
<td>292</td>
</tr>
<tr>
<td>West Midlands</td>
<td>425</td>
</tr>
<tr>
<td>North East</td>
<td>135</td>
</tr>
<tr>
<td>North West</td>
<td>590</td>
</tr>
<tr>
<td>Yorkshire and Humber</td>
<td>326</td>
</tr>
<tr>
<td>South East</td>
<td>475</td>
</tr>
<tr>
<td>South West</td>
<td>265</td>
</tr>
<tr>
<td>England</td>
<td>5,559</td>
</tr>
</tbody>
</table>

PHE centre of diagnosis
Diagnosed prevalence of $\geq 2$ per 1000 is threshold for opt out testing in all medical settings as per BHIVA national guidelines 2008.
Proportion of people diagnosed with HIV at a late stage of infection by exposure group: United Kingdom, 2005 - 2014

Numbers have been adjusted for missing CD4 cell count at HIV diagnosis.
Late stage of HIV infection: CD4 <350 cells/mm³ within three months of diagnosis.
Continuum of HIV care: United Kingdom, 2014

- HIV infected (n=103,700): 100%
- HIV diagnosed† (n=85,600): 83%
- On treatment (n=76,900): 75%
- Undetectable VL* (n=72,800): 70%

* Viral load (VL)< 200 copies/ml
† Number diagnosed estimated from MPES
Estimated number of people living with HIV (both diagnosed and undiagnosed): United Kingdom, 2014

Total living with HIV = 103,700 (97,500 – 112,700)
Total diagnosed = 85,600 (84,100 – 87,100)
Total undiagnosed = 18,100 (12,100 – 26,900)
Back-calculation estimate of HIV incidence and prevalence of undiagnosed infection among men who have sex with men: United Kingdom, 2005 - 2014

Estimated through the CD4 back-calculation
Opt-out testing – what can be achieved

- Antenatal testing = overall 96% uptake
- Perinatal transmission rate in UK = 0.57%*

<table>
<thead>
<tr>
<th>Region</th>
<th>Positivity per thousand tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Midlands</td>
<td>1.82</td>
</tr>
<tr>
<td>East of England</td>
<td>1.45</td>
</tr>
<tr>
<td>London</td>
<td>3.21</td>
</tr>
<tr>
<td>North East</td>
<td>1.36</td>
</tr>
<tr>
<td>North West</td>
<td>0.74</td>
</tr>
<tr>
<td>South East</td>
<td>1.31</td>
</tr>
<tr>
<td>South West</td>
<td>0.45</td>
</tr>
<tr>
<td>West Midlands</td>
<td>1.74</td>
</tr>
<tr>
<td>Yorkshire &amp; Humber</td>
<td>1.29</td>
</tr>
<tr>
<td>National</td>
<td>1.65</td>
</tr>
</tbody>
</table>

Antenatal HIV seroprevalence 2010, PHE

*Townsend et al 2014
# HIV testing in UK

<table>
<thead>
<tr>
<th>Site</th>
<th>Proportion of all HIV tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal care</td>
<td>39%</td>
</tr>
<tr>
<td>STI clinics</td>
<td>38%</td>
</tr>
<tr>
<td>Primary care</td>
<td>3.8%</td>
</tr>
<tr>
<td>General medicine / surgery depts</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

Up to date info from PHE

- [http://fingertips.phe.org.uk/profile/sexualhealth/data#page/0](http://fingertips.phe.org.uk/profile/sexualhealth/data#page/0)
RHIVA 2 RCT – universal offer of POCT in primary care

- Opt out testing in general medical settings where diagnosed prevalence > 2 per 1000
  - “...thoroughly evaluated for acceptability and feasibility ... better inform the ongoing implementation of these guidelines”

- In Hackney (diagnosed prevalence = 8/1000)

- Intervention practices diagnosed more HIV and there was a trend to earlier diagnosis

BHIVA National HIV Testing Guidelines 2008
RHIVA 2 qualitative evidence: “Diffusion of innovations” model

- Structural issues and resources
  - 10 vs 30 mins per patient; staff member; room
  - Management relations and leadership
- “Relative advantage”
  - Seeing test as beneficial to patients
- “Re-invention”
  - Adapting test technology to practice
- Compatibility
  - Emotionally prepared to administer test

McMullen et al, Trials 2015; 16:242
What’s it like getting a positive HIV test result?

• Being asked to return for the result
• Being given the result
• Confirming the diagnosis
• Getting into an HIV clinic
• Communication between primary care and HIV clinic
Opt out testing in your setting?
Staff attitudes towards HIV testing (HINTS Study)

- 96% staff were supportive of the need for increased HIV testing, and 84% thought it acceptable for HIV testing to be offered in their Department (n=146)

- *BUT* only 54% staff agreed they would feel comfortable offering HIV tests themselves

![Bar chart showing staff attitudes towards HIV testing](chart.png)
Most staff felt they would require further training to offer HIV tests, in addition to identifying operational barriers in many settings.

- "I would require additional training before routinely offering HIV tests to patients."
- "I don't have time to include routine HIV testing as part of patients' care in this department."
- "I am concerned that patients would have questions I could not answer."
Routine HIV testing in recommended settings

- Systematic review and meta-analysis (El Mahdi, 2014)
- Heterogeneous group of studies
- Analysis stratified by routine testing in population vs. indicator disease based testing

- Outcomes for routine HIV testing in recommended settings (excluding GUM, antenatal and community):

<table>
<thead>
<tr>
<th>% eligible receiving HIV test (95% CI)</th>
<th>N studies</th>
<th>% eligible offered an HIV test (95% CI)</th>
<th>N studies</th>
<th>% offered accepting HIV test (95% CI)</th>
<th>N studies</th>
<th>% tested HIV+ (95% CI)</th>
<th>N studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.5% (24% - 35%)</td>
<td>20</td>
<td>45.5% (38% - 53%)</td>
<td>12</td>
<td>69.2% (53% - 86%)</td>
<td>12</td>
<td>0.4% (0.2% - 0.6%)</td>
<td>17</td>
</tr>
</tbody>
</table>

- Only independent predictor of testing rate: prospective vs. retrospective study design
- Staff support **HIGH** in quantitative and qualitative studies
Summary

• Value of opt out testing in simplifying pre-test discussion
• Cost-effective in areas of higher prevalence and higher risk groups
• Evidence of high acceptability and feasibility
• Success depends on resource, training, staff interest and flexibility
• Aims are improved prognosis and reduced transmission