Dr Valerie Delpech
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<th>Speaker Name</th>
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<td>Dr. Valerie Delpech</td>
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**COMPETING INTEREST OF FINANCIAL VALUE > £1,000:**

**Date**  
October 2014
Primary infection
Public health perspective

Dr Valerie Delpech
Head of HIV surveillance
Public Health England
We gratefully acknowledge persons living with HIV, clinicians, health advisors, nurses, microbiologists, public health practitioners, data managers and other colleagues who contribute to the surveillance of HIV and STIs in the United Kingdom.
HIV in the UK: 2013 data

**HIV diagnoses, AIDS & deaths**
- 6,000 new HIV diagnoses
- 42% diagnosed late
- 319 reports of AIDS
- 577 deaths – 75% are late diagnosed

**81,512 people receiving HIV care**
- 97% linked to care within 3 months
- 95% retained in care annually
- 92% in need of treatment are on treatment (87% of all diagnosed)
- 95% on treatment achieve VL<200 copies/ml
People living with HIV by diagnostic and treatment status, and number with detectable viral load, UK, 2006-2012

HIV in the United Kingdom: 2013
Phillips model of MSM in the UK

Potential increases in testing: probability of diagnosis by time from infection

Proportion of cases diagnosed over time for different test rates:
- **test rate ++**
- **test rate +**
- **base test rate** (Current situation)

Years from infection:
- 0 yr
- 1 yr
- 2 yr
- 3 yr
- 4 yr
- 5 yr
So why can we not eliminate HIV in the UK?

- Undiagnosed remain too high
- Failure to implement testing guidelines
  - low uptake in key populations despite new technologies
  - geographical testing not working – is 2/1,000 threshold still relevant?

- how frequent does testing need to be?
- primary infection substantially contribute to onward transmission
Primary infection

• Different definitions of primary infection – variation in duration, microbiological vs clinical (6 weeks) vs epidemiological definition (recently infected – RITA 4-6months) modelling (3 months)

• Primary infection is likely to substantially contribute to onward transmission

• Models and phylogenetics work show considerable variability however (15-50% of new infections are acquired from a person unaware of their infection in primary infection)

• Targeting persons in primary infection for early treatment and partner notification is likely to have a substantive impact on transmission

• The challenge is identifying persons in early infection
Identifying persons in primary infection

Clinical symptoms

• screening of men with the acute symptoms (Fisher triad)
• screening of men with IMN and other HIV indicator conditions
• Increase awareness among gay men to present and seek test

Targeting high risk persons

• Promotion of 3 monthly HIV screening among MSM with new partner/UAI
• Recall of STI attendees – MSM with previous STI and/or history of UAI
• New diagnostics (home sampling/testing) and outreach (eg Dean St)

Partner notification of recently infected (RITA recent, neg test previous 6 months)
Why is HIV transmission among MSM remaining high

• Role primary infection likely to be substantive 30%–60% of all infections

Other factors

• High rates of STIs and other co-infections
• Low investment in primary prevention
  • Condom uptake remains too low – serosorting is not safe
• Changing social networks with wide use of apps to find casual partners
• Increase in chemsex
• Insufficient uptake of Treatment as Prevention
• Failure of partner notification policies
• Low uptake of TasP
What should we do?

- Primary prevention remains important – holistic approach
- Prep
- Tasp
- Partner notification
- Improve culture of testing
- Recall of high risk STI attendees
- Greater emphasis on combination of identifying persons in primary infection+ early treatment/TasP + intense PN
PHE advice for MSM

Have an HIV/STI screen at least annually, and every three months if having unprotected sex with new or casual partners.

Unprotected sex with casual and new partners who are believed to be of the same HIV status (serosorting) is unsafe.

For HIV positive men, serosorting poses a risk of acquiring other STIs and hepatitis with serious treatment implications.

For HIV negative MSM it carries the risk of HIV transmission (as a quarter of HIV positive MSM are unaware of their infection), as well as acquiring STIs

Need for tailored messaging for individuals based on risk assessment
MSM in HIV care, UK, 2012

Diagnosed | Linkage <12 months | Retention | Viral suppression
---|---|---|---
100 | 100 | 80 | 80
## Breakdown of patients on ART, UK, 2008-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Total¹</th>
<th>On ART No. (%)</th>
<th>Started ART</th>
<th></th>
<th></th>
<th>Number untreated</th>
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<td></td>
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<td>&lt; report year</td>
<td>In report year</td>
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<td>2008</td>
<td>59,657</td>
<td>45,167 (76)</td>
<td>38,394</td>
<td>6,686</td>
<td></td>
<td>14,490</td>
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<tr>
<td>2009</td>
<td>63,605</td>
<td>49,615 (78)</td>
<td>43,316</td>
<td>6,250</td>
<td></td>
<td>13,990</td>
</tr>
<tr>
<td>2010</td>
<td>67,709</td>
<td>55,358 (82)</td>
<td>49,162</td>
<td>6,154</td>
<td></td>
<td>12,351</td>
</tr>
<tr>
<td>2011</td>
<td>72,559</td>
<td>60,668 (84)</td>
<td>54,580</td>
<td>6,055</td>
<td></td>
<td>11,891</td>
</tr>
<tr>
<td>2012</td>
<td>76,705</td>
<td>65,487 (85)</td>
<td>58,662</td>
<td>6,800</td>
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<td>11,218</td>
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¹ Total includes patients who were already on ART at the start of the year.
Number of persons initiating ART by CD4 count at initiation, UK, 2008-2012

- <200
- 200-349
- 350-499
- >500

Year:
- 2008
- 2009
- 2010
- 2011
- 2012
I would prefer to start HIV drugs now, in order to make me less infectious to a sexual partner

- Strongly Agree (9): 25%
- Agree (9): 25%
- Disagree (12): 33%
- Strongly Disagree (3): 8%
- Don't know (3): 8%
Proportion of patients with VL <200 copies 12 months after ART initiation, by CD4 at ART start, UK
Two-thirds of HIV positive people with detectable viral loads are unaware of their infection and those in early infection are most likely to transmit their infection to others.

Expanded and targeted testing with novel diagnostics must be scale up.

Efforts to identify persons in primary infection is critical. Once diagnosed, they should be offered earlier treatment and prioritise for partner notification. Novel interventions are underway. What works needs scaling up.

Other prevention strategies including condom use, PREP, reduced partners, treatment of STIs, and improvements in sexual wellbeing, mental health and non-harmful use of drugs and alcohol remain critical in the control of HIV and other STIs epidemic.
Recently diagnosed young man, UK

From the year 2014 as I became HIV, my life just changed. My mum does not want to know me or to see as I told her about my sexuality and her last word was to me that, because I am a Muslim and a gay man that's why I am paying for my sins. She also told me that I have chose hell here in this world and also after I will die.
THANK YOU

Dr Alison Brown and the HIV team at Colindale, PHE
MPES team, Andrew Phillips
Persons living with HIV,
Clinicians, health advisors, nurses, microbiologists, public health practitioners, data managers and other colleagues who contribute to the surveillance of HIV and STIs in the UK