Towards elimination of HIV in the most affected communities living in the United Kingdom

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On behalf of the HIV & STI teams at Colindale Public Health England
Take home messages

• Combination prevention is working!

• We are witnessing and recording a down turn in new HIV diagnoses among gay and bisexual men

• We need to consolidate scaling up of testing and early ART across all parts of the country for all groups at greatest risk of HIV

• Prep use likely to have also contributed to the fall in new diagnoses but we need to scale up and better track its use
Facts for 2015

>100,000 people living with HIV in the UK
About one in six unaware

> 85,000 people accessing HIV care

6000 people diagnosed (1/10,000)
42% diagnosed late
300 AIDS reports,

500 deaths among people with HIV 75%
in first year of diagnosis, majority are late diagnosed
Projected HIV incidence
Model of MSM epidemic in the United Kingdom

No. new infections per year

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<th>Year</th>
<th>base test rate</th>
<th>ART at 350</th>
<th>ART 350</th>
<th>test rate +</th>
<th>ART at diagnosis</th>
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95% CI given for two lines to illustrate uncertainty over mean effect

Phillips, PLOS One 2014
Probability of diagnosis by time from infection, Model of MSM epidemic in the United Kingdom

Years from infection

Phillips, PLOS One 2014
HIV in the UK

- Almost all HIV infections are acquired sexually
- HIV continues to impact most on stigmatised and marginalised communities (because of their sexual identity and/or behaviour, use of illicit drugs, residency status etc.)
- The epidemic is diversifying, with complex transmission dynamics
- Life expectancy is that of the general population when diagnosed promptly
- Care for some is complex and many patients have multiple health conditions
- People living with HIV continue to experience stigma by their communities, health care workers and work place
- These factors discourage HIV testing so that some people remain unaware of their infection for many years – this impacts on their health and risk of transmitting their infection to their sexual partners
People accessing HIV care

- **Clinics**: 168 clinics submitted 4 consecutive quarters of HARS data.
- **Patients**: 68,607 patients in 2016 (85% of patients in 2015).
- **Average annual number of consultations**: 4.2

**Patient Demographics**:
- **Complex**: 13%
  - Newly diagnosed: 21% (N=3,016)
  - Newly starting treatment: 41% (N=3,819)
- **New**: 7%
- **Stable**: 80%
  - Complex: 13% (N=8,625)
  - New: 21% (N=4,852)
  - Stable: 66% (N=55,130)

**Average Number of Consultations**:
- Complex: 5.6
- New: 5.9
- Stable: 3.9
Context

• Open access, high quality and free and STI & HIV testing and care
• Long history of health promotion programmes with relatively high uptake of condoms among gay men
• New NICE testing guidelines
• New testing modalities (POCT, home sampling and testing)
• New treatment guidelines promoting earlier treatment for TasP
• PROUD trial
• Internet access of Prep
Monitoring

What we monitor

- New HIV diagnoses by setting and CD4 count
- HIV testing offer and uptake through STI clinics
- Uptake of antiretroviral therapy after diagnosis
- Estimates of undiagnosed infections
- Estimates of HIV incidence rates in MSM
  - 5-10 /1,000 overall
  - 30+/1,000 among men with a bacterial infection

WHO refers to HIV elimination as <1 new case/ 1,000 population
- Behaviour data

Don’t monitor - PREP yet!
New diagnoses
Number of people newly diagnosed with HIV by exposure category: United Kingdom, 2006 - 2015

Values are adjusted for missing exposure group where stated.
Proportion of people newly diagnosed with HIV by world region of birth: United Kingdom, 2006 - 2015

Excludes people with missing country of birth information

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New HIV diagnoses among heterosexuals by region of birth and probable country of acquisition: UK, 2006-2015

Figures adjusted for missing exposure category and region of birth
New HIV diagnoses among heterosexuals, UK

**Men**
- White
- Black African
- Black Caribbean
- Other

**Women**
- White
- Black African
- Black Caribbean
- Other
Late stage of HIV infection: CD4 < 350 cells/mm³ within three months of diagnosis.
New HIV diagnoses (prompt and late) among heterosexuals: UK

Number of diagnoses

Year


Diagnosed promptly

Diagnosed late (<350)
New HIV diagnoses and one year mortality (prompt and late) among heterosexuals: UK

- Diagnosed promptly
- One year mortality (prompt)
- Diagnosed late (<350)
- One year mortality (late)
New HIV diagnoses (prompt and late) among MSM: UK

Number of diagnoses

Year


Diagnosed promptly

Diagnosed late (<350)
New HIV diagnoses and one year mortality (prompt and late) among MSM: UK

Number of diagnoses

Year


Diagnosed promptly
Diagnosed late (<350)
One year mortality (prompt)
One year mortality (late)
Diagnoses through STI clinics
New HIV diagnoses among gay & bisexual men in England

Note: There has been a year on year increase in the median CD4 cell count at diagnosis over this period indicating earlier diagnosis.
New HIV diagnoses among adults attending sexual health services

Current HIV trends in England

Gay/bisexual men
Heterosexual men
Heterosexual women
3 Clinic Strata

1. **Clinics with a large fall**: >20% drop and > 40 diagnoses between Oct 2014-Sep 2015 and Oct 2015-Sep 2016

   *Dean St, Mortimer Market, Homerton, St Mary, Guy and St Thomas*

2 Other London clinics

3 Clinics in other parts of England
New HIV diagnoses among gay men attending sexual health clinics England

Steep fall definition: Clinics with >20% decrease in HIV diagnoses between Oct 2014-Sep 2015 and Oct 2015-Sep 2016, and over 40 diagnoses during this period.
Testing Testing Testing
Innovation and scaling up of HIV testing

• POCT widely used

• HIV Self Sampling:
  • person takes a sample (saliva or blood from a finger prick), and sends it to a laboratory for testing.
  • Results are then given by the service, advising you what to do next
  • THT and PHE services (discussed this pm)

• HIV Self Testing:
  • Person performs an HIV test on themselves, in a non-medical setting (e.g. home), and sees a result immediately
  • 6th April 2014: Repeal of the HIV testing and Services Regulations
  • SELPHII Study of underway
Sign-up is now open for European HIV-Hepatitis Testing Week 2016

Now in its fourth year and the second time hepatitis testing has been included, European HIV-Hepatitis Testing Week will take place from 18-25 November 2016.

Testing week is spanning the length and breadth of the continent with partners participating from over 50 European countries. Check out the live feed to see the latest organisations that have signed-up to implement testing week activities in their country. Sign-up now to put your organisation on the map!
Testing of MSM in STI clinics

Information on new diagnoses and testing among all gay men attending sexual health clinics (GUMCAD)

Clinic Strata

1. Clinic with a large fall
2. Other London clinics and
3. Clinics in other parts of England

Testing data on men attending for HIV test at the same clinic in the last 2 years (repeat testers) and those who had a new test in last 2 years
HIV tests among gay men attending London LF clinics by frequency of HIV testing

Steep Fall: Clinics with >20% decrease in HIV diagnoses between Oct 2014-Sep 2015 and Oct 2015-Sep 2016, and over 40 diagnoses during this period.
Frequency of HIV testing among men attending LF clinics (n=5)

- No tests in last 2 yrs
- 1 test in last 2 yrs
- 2-3 tests in last 2 yrs
- 4+ tests in last 2 yrs

Proportion of attendees
HIV tests and new diagnoses among gay men attending London LF clinics (N=5)
HIV tests and new diagnoses among gay men attending other London clinics (N=30)
HIV tests and new diagnoses among gay men attending clinics in the rest of England (N=190)
Treatment as Prevention
ART initiation by CD4 count (120 countries)

2015 WHO Recommendation: Irrespective of CD4 count

Source: www.HIVpolicywatch.org
Continuum of HIV care: United Kingdom, 2015

- People accessing HIV care: 100% (n=88,800)
- On treatment: 96% (n=84,800)
- Undetectable VL*: 89% (n=79,000)

*Viral load (VL) <=200 copies/mL
Excludes those with a missing viral load (14%)
Adjusted* number of adults with diagnosed HIV infection starting treatment, by CD4 count at ART initiation: UK

*Adjusted for missing/inconsistent CD4 count at diagnosis, 24% overall
Median days from HIV diagnosis to ART initiation among gay men in England

- **London steep fall**
- **Other London**
- **Outside London**
- **Overall**

![Graph showing median days from HIV diagnosis to ART initiation among gay men in England.](Image)
Transmissibility: Estimated number of gay men with viral load > 200 copies/mL by clinic strata

*Estimated undiagnosed, diagnosed untreated and those treated with viral load >200 copies/mL
Men with transmissible Viral Load

- Assumption that all men that are undiagnosed or have a viral load >200 copies/mL at date last seen for HIV care can potentially transmit HIV

Men at high risk of HIV acquisition

- HIV negative men with a documented STI in previous year was defined as High risk

Transmissibility Ratio:

\[
\frac{\text{Total number of men with transmissible VL}}{\text{Total number of high risk men since at clinic}}
\]
Transmissibility ratio by clinic strata, 2015

Transmissible VL: Estimated undiagnosed, diagnosed untreated or on ART with viral load >200 copies/mL
High risk men: HIV negative with a history of an STI in previous year

Steep fall clinics: 1,752: 3596
Other London clinics: 1,444: 868
Outside London clinics: 5,062: 2,933
What’s next?

- 2016 data & incidence estimates
- Expansion of early testing and ART on diagnosis
- Availability and monitoring of Prep
- Engagement and inclusion of all most at risk persons

AIDS at HIV diagnoses is within 3 months of HIV diagnoses.
Gender identity consultation and agreed questions

Representatives from CliniQ, LGBT Foundation, Action for Trans Health, National LGB&T Partnership, Public Health England

Q1 Gender identity
Which of the following options best describes how you think of yourself?

- Female (including trans woman)
- Male (including trans man)
- Non-binary
- In another way*
- Not stated (PERSON asked but declined to provide a response)
- Not known (not recorded)

Q2 Trans status
Is your gender identity the same as the gender you were given at birth?

- Yes
- No
- Not stated (PERSON asked but declined to provide a response)
- Not known (not recorded)

* Coded as “Other” in the NHS data dictionary
* Please not that a text field may be added to this field to provide a description of ‘in another way’
* However note there are no text field in the HARS dataset
1. We are witnessing and recording an ecological experiment of the impact of combination prevention on HIV incidence.

2. A substantial fall in new HIV diagnoses fell was observed at five London clinics in the third quarter of 2016 compared to the previous year with smaller declines observed at other London clinics, and elsewhere in England.

3. The rise in median CD4 count at diagnosis indicates fall in diagnosis is likely to reflect decrease in incidence.

4. We need to consolidate scaling up of testing and early ART and Prep across all parts of the country for all people at greatest risk of HIV whilst maintaining other primary prevention efforts.

5. We have a unique opportunity to monitor our impact at local and national level through our public health systems.
Acknowledgements

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Thank you