Public Health England

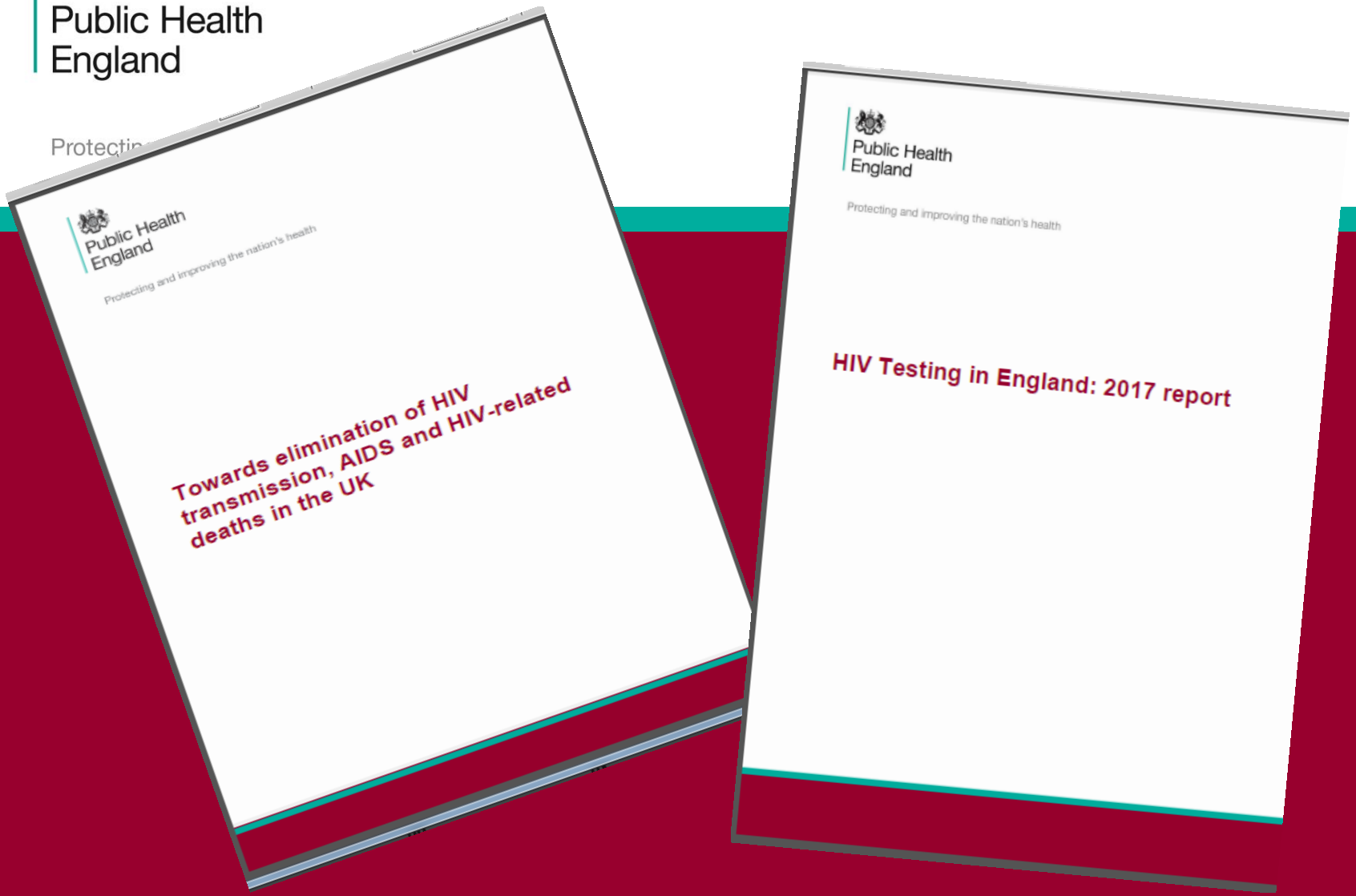
Protecting and improving the nation's health

HIV in the United Kingdom

Valerie Delpech and Alison Brown on behalf of the HIV and AIDS Reporting Section
National Infection Service
Public Health England

Public Health England

Protecting and improving the nation's health



Released 15 December 2017

Public Health England

Protecting and improving the nation's health

Undetectable=Untransmittable

ART is now so effective that those who are treated and have an undetectable viral load (<200 copies) have levels of virus that are untransmissible, even if having sex without condoms. This is sometimes referred to as U=U.

Public Health England

Protecting and improving the nation's health

This year, there are 3 firsts in the 30 year history of the UK HIV epidemic..

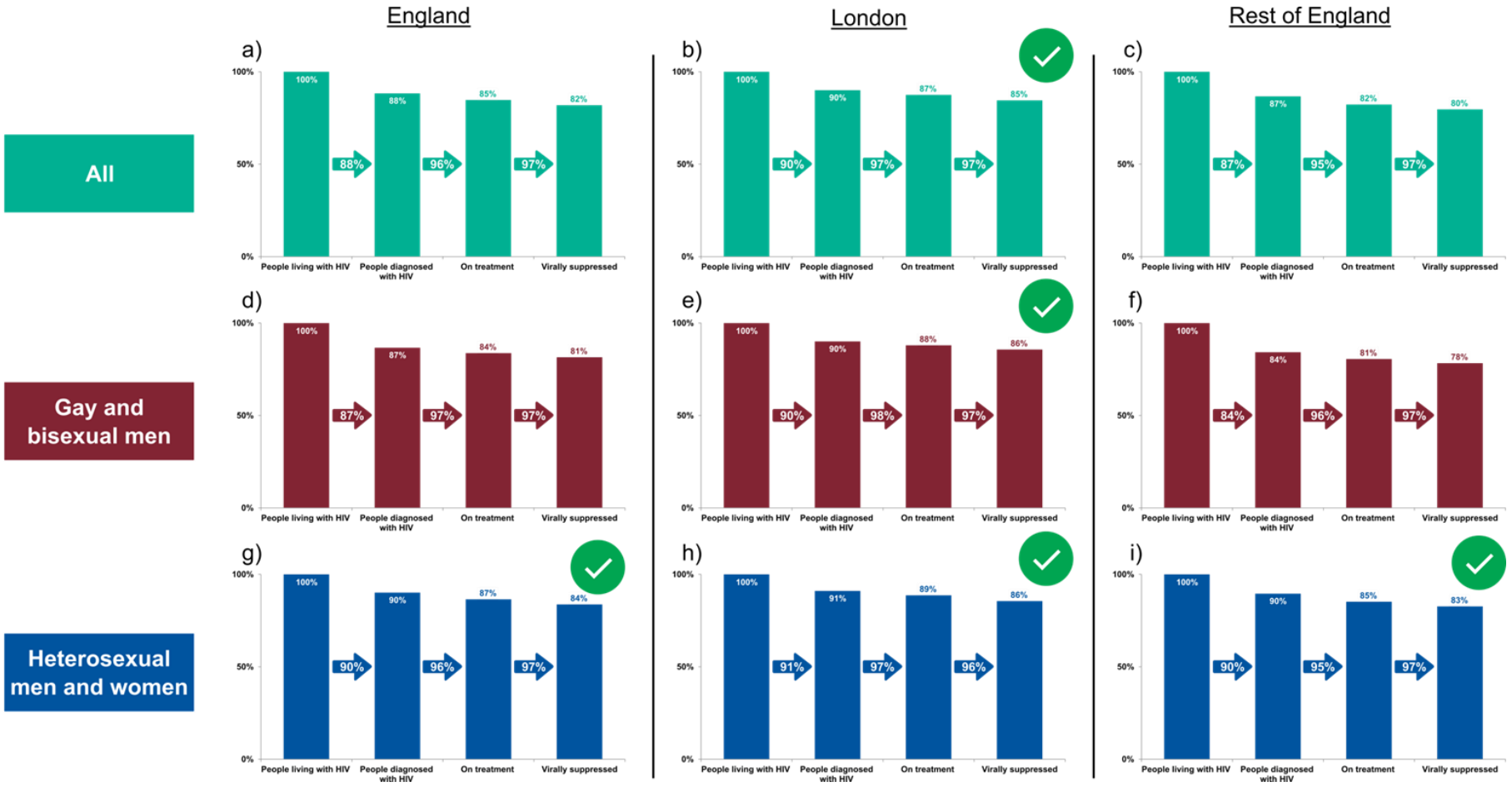
Public Health England

Protecting and improving the nation's health

In London, all the global UNAIDS 90:90:90 targets have been met with
90% of people living with HIV infection diagnosed,
97% of people diagnosed receiving treatment and
97% of those receiving treatment virally suppressed.

Public Health England

The continuum of HIV care by region of residence and risk group, England: 2016



Public Health England

Protecting and improving the nation's health

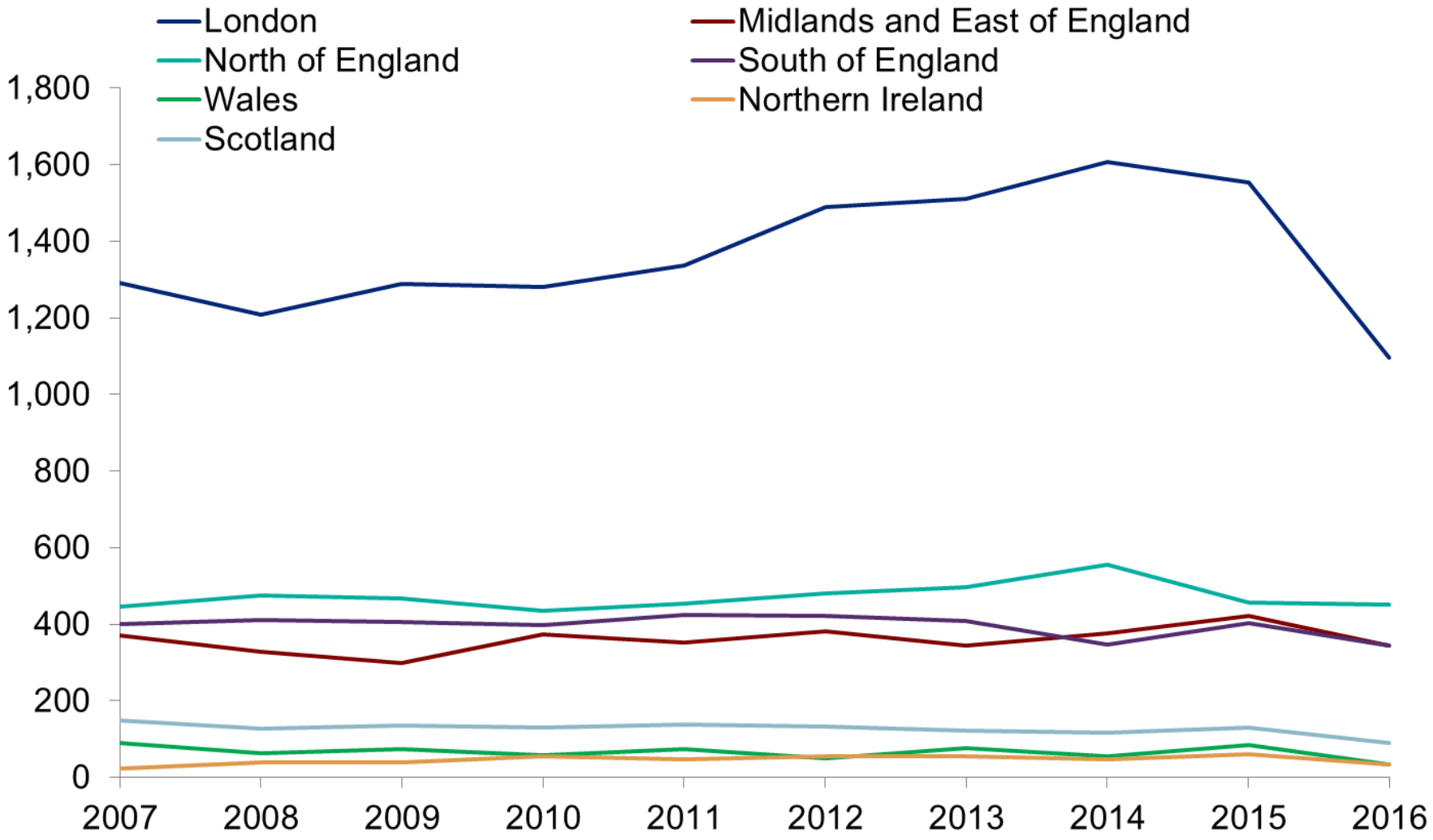
HIV transmission among gay and bisexual men has fallen

The observed decline in new diagnoses in gay and bisexual men is due to reduced transmission of HIV.

The estimated annual number of new infections acquired in gay and bisexual men has declined year on year from
a peak of around 2,800 (95% credible interval (CrI) 2,300 to 3,200) in 2012 to 1,700 (CrI 900 to 2,700) in 2016.

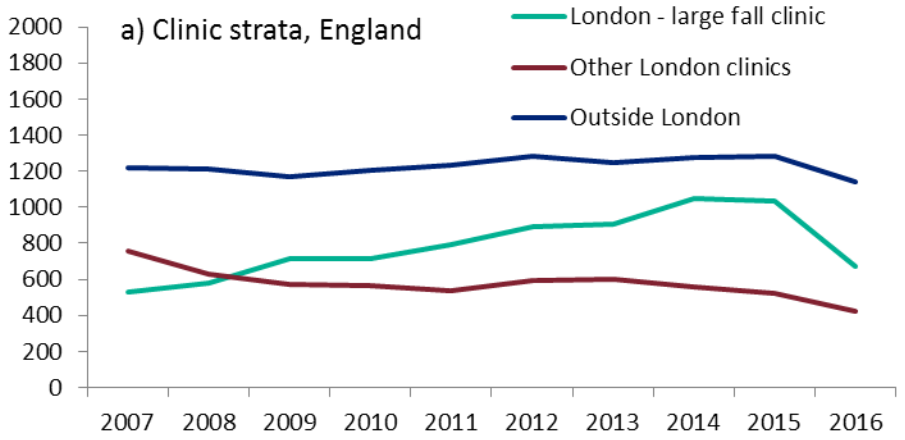
Public Health England

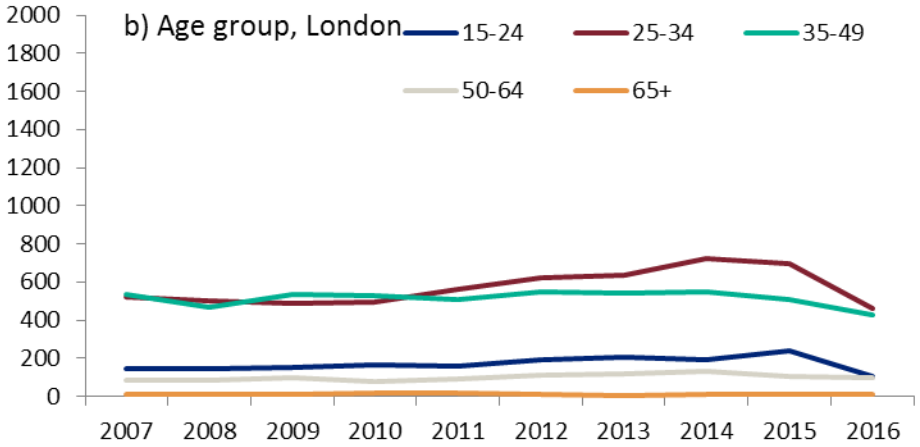
Geographical trends of new HIV diagnosis among gay and bisexual men: United Kingdom, 2007-2016

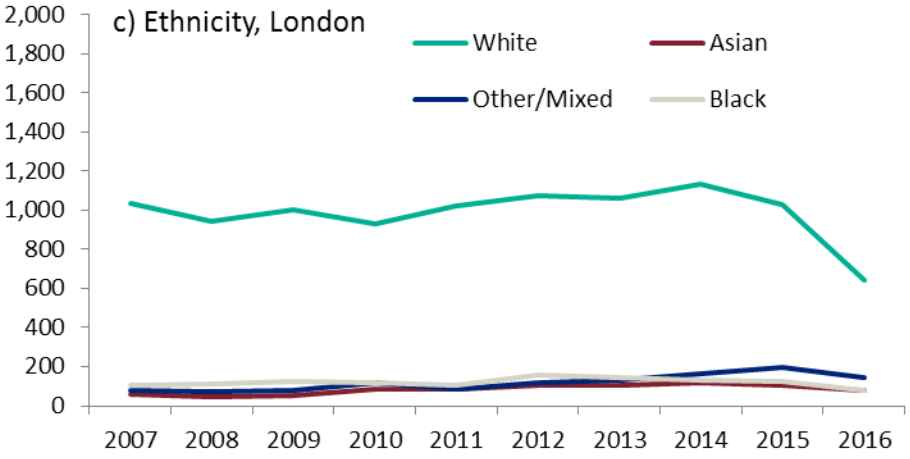


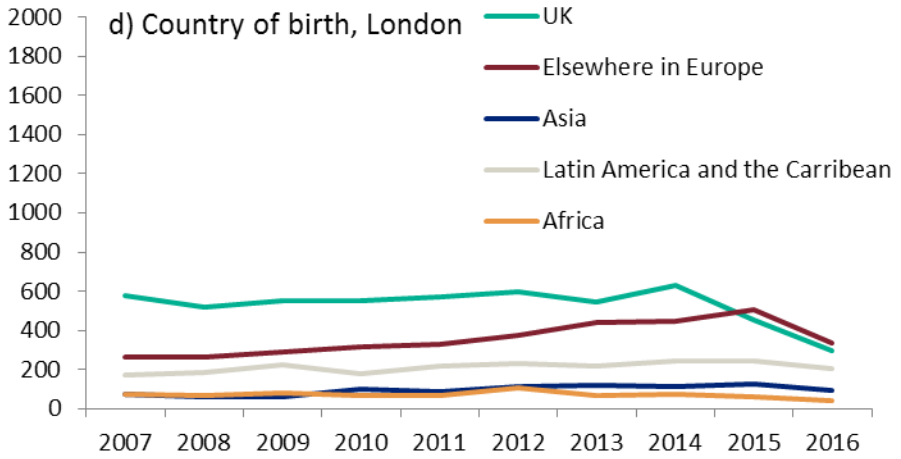
Public Health England

HIV diagnoses among gay and bisexual men, by population characteristics: England and London, 2007-2016



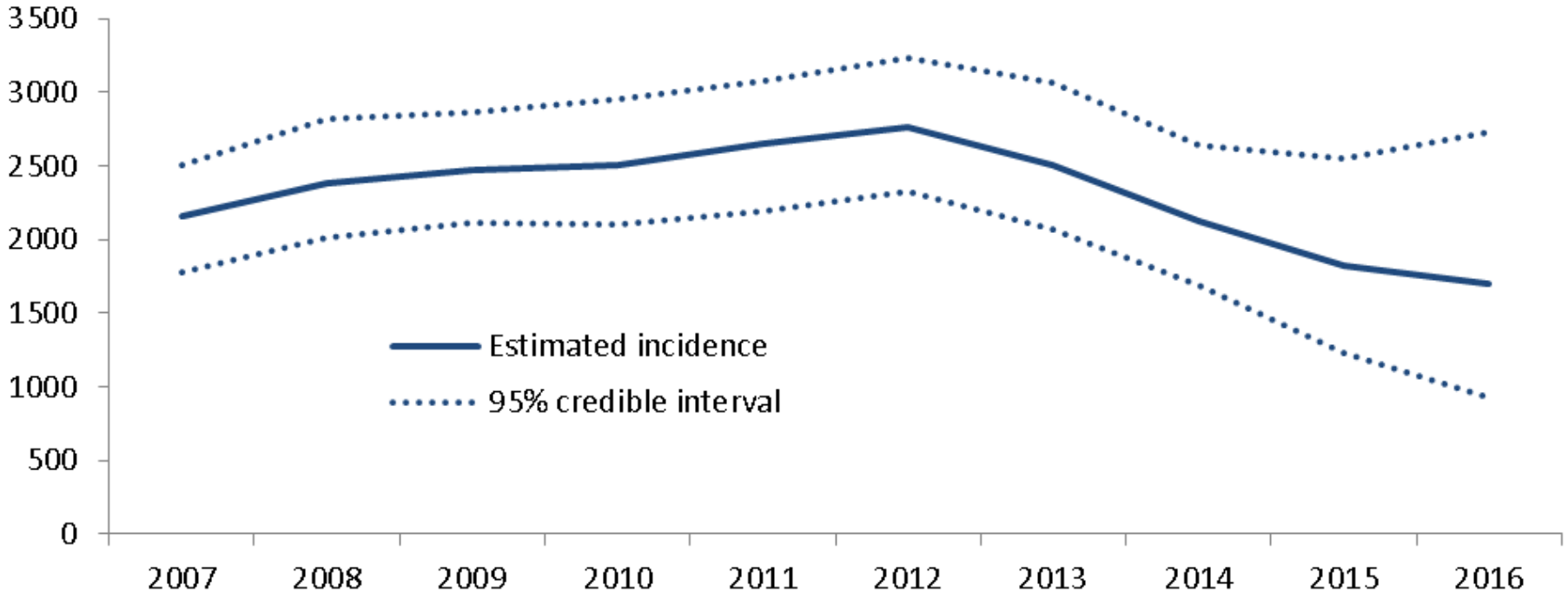






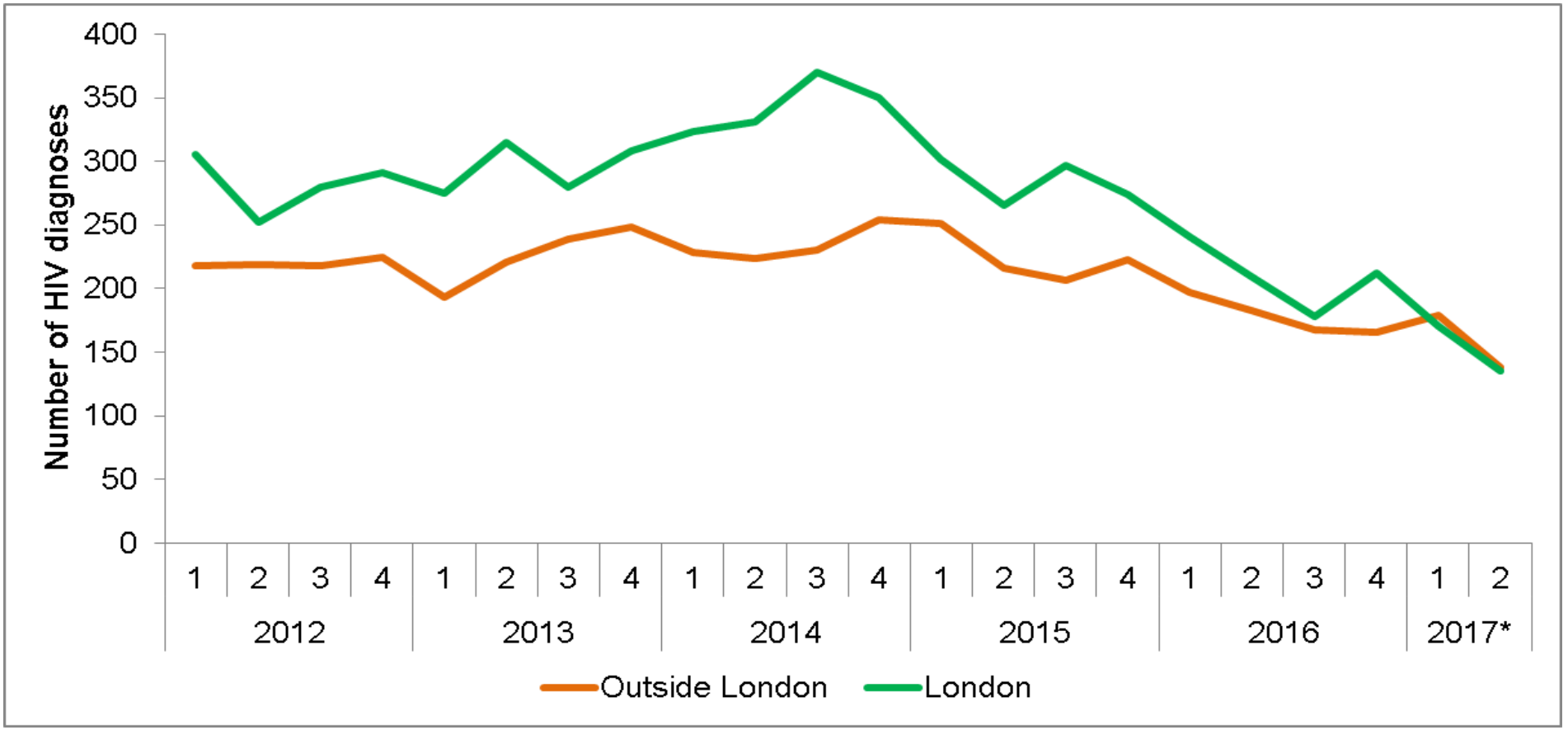
Public Health England

Estimates of HIV incidence in gay and bisexual men: using CD4 back-calculation, England



Public Health England

Trend in new MSM HIV diagnoses at STI clinics London & Outside London



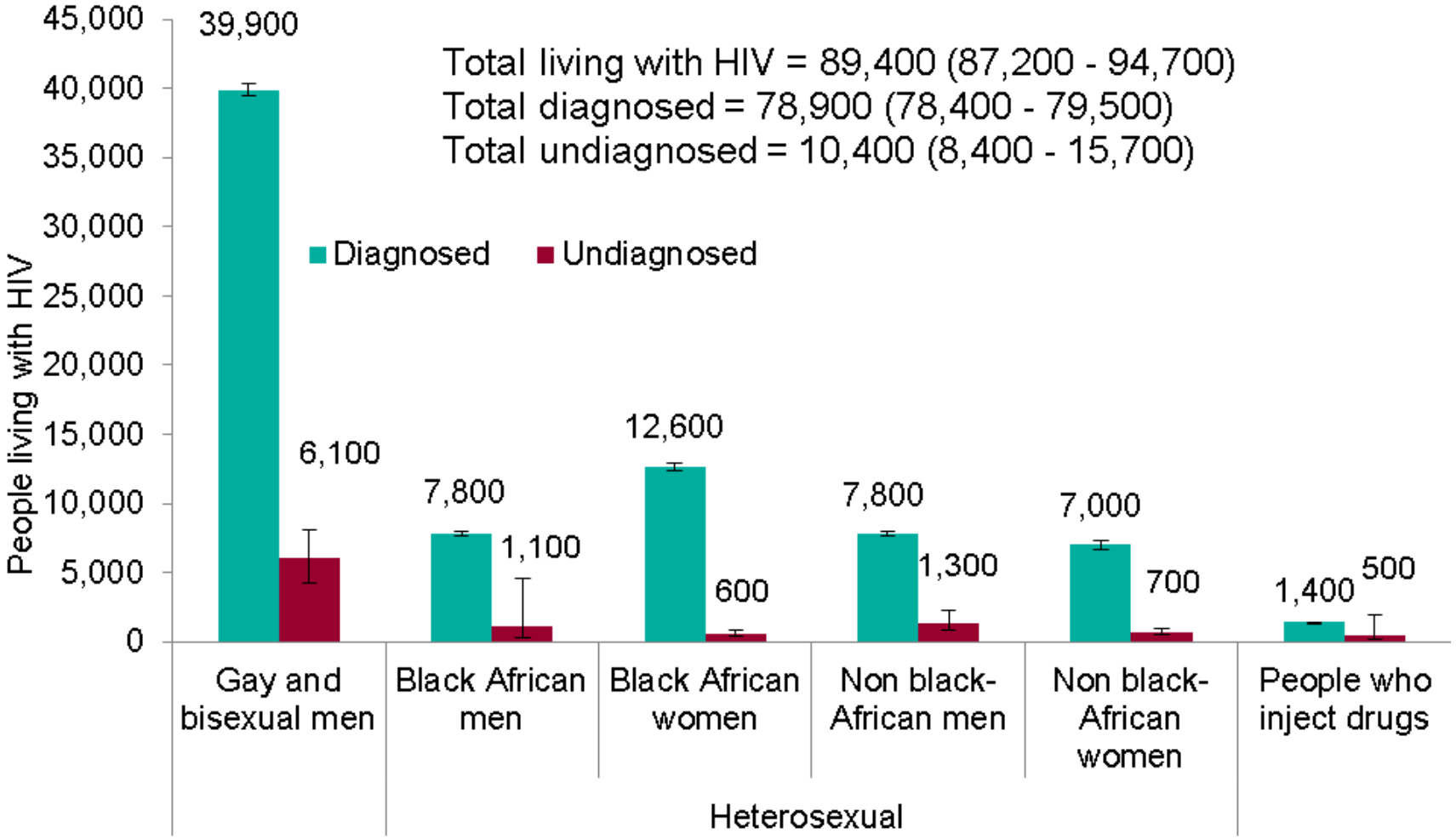
Public Health England

Protecting and improving the nation's health

HIV prevalence (diagnosed and undiagnosed)

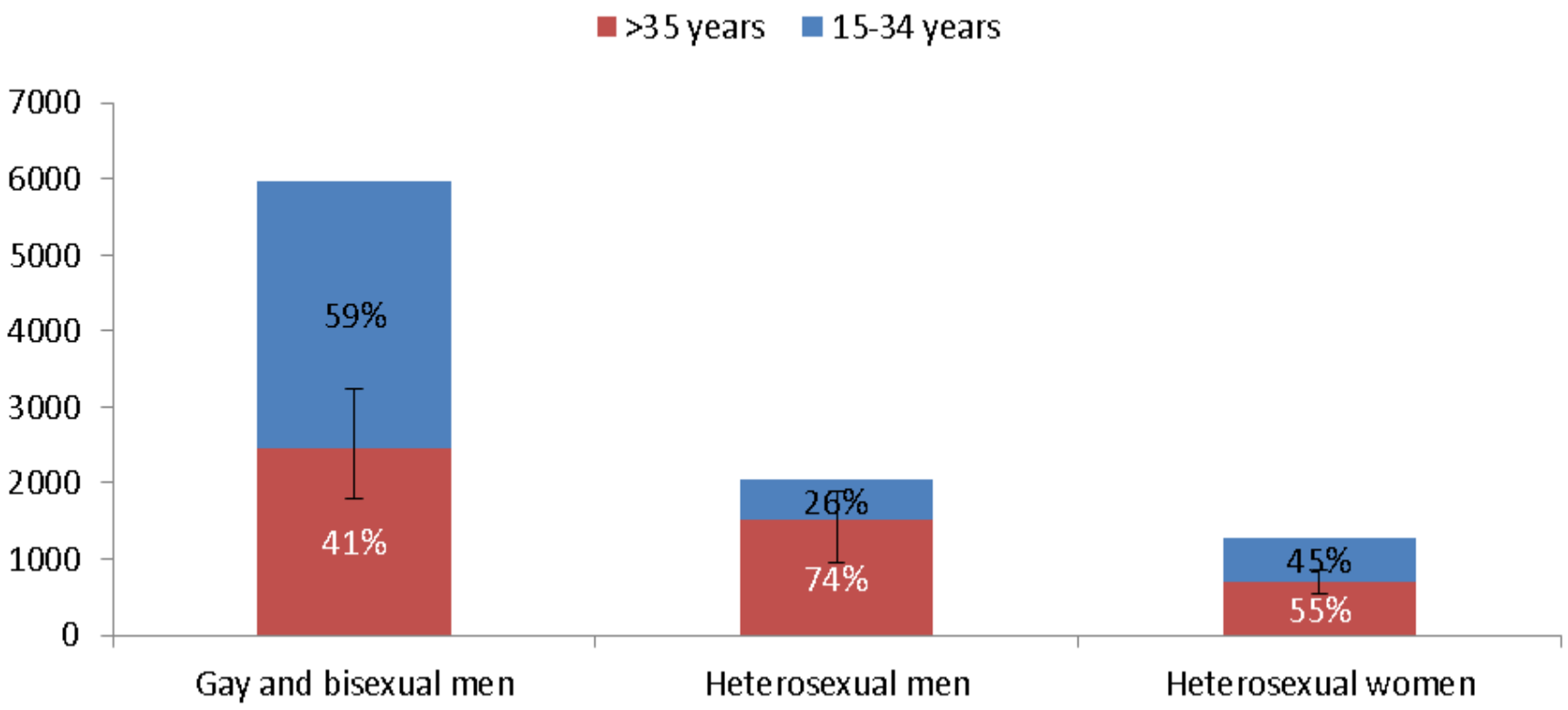
Public Health England

Estimated number of people living with HIV (diagnosed and undiagnosed) all ages: England, 2016



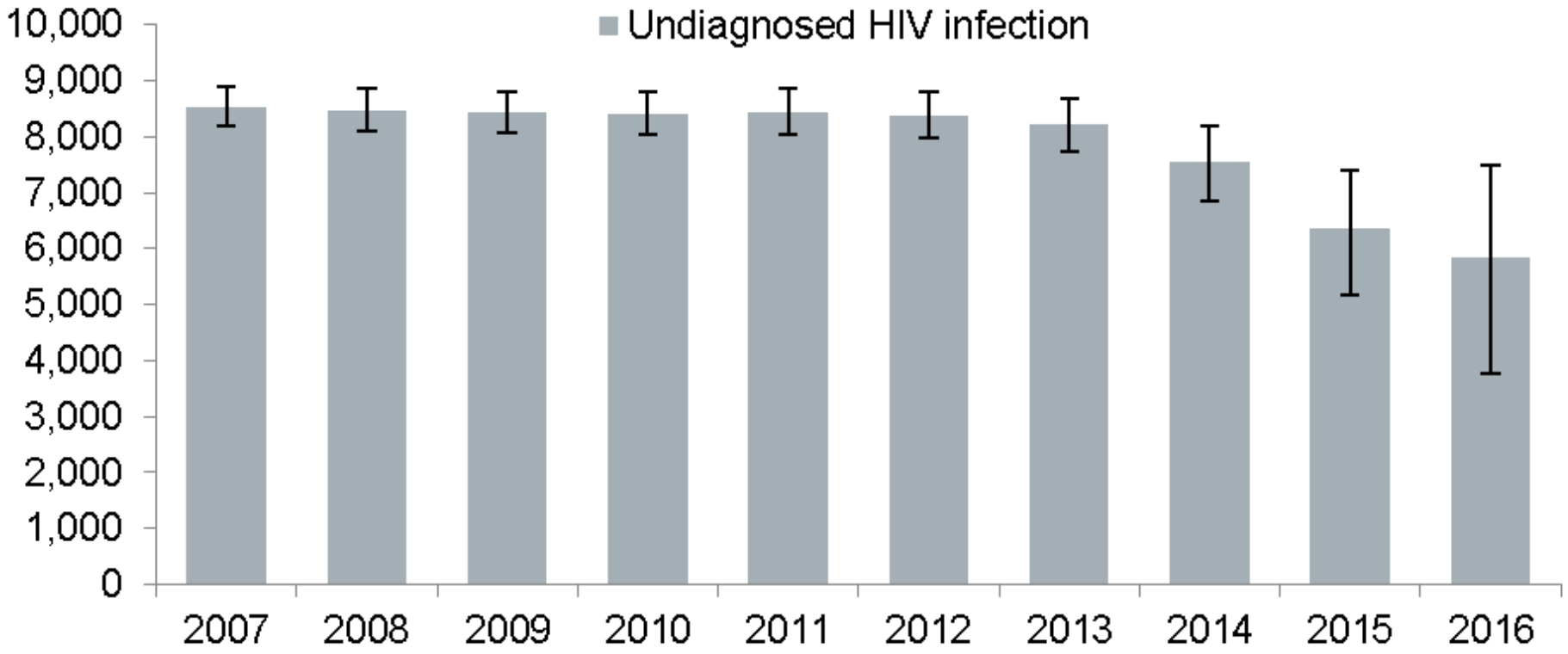
Public Health England

Estimated number of people living with undiagnosed HIV infection by exposure and age group: England, 2015-2016



Public Health England

Estimates of undiagnosed HIV infection in gay and bisexual men using a CD4 back calculation method, England, 2007-2016



Public Health England

Protecting and improving the nation's health

The death rate among people with HIV who are diagnosed promptly and on treatment is now comparable to the rest of the population

Crude rates:

1.22 vs 1.39 per 1,000 population aged 15-59 yrs

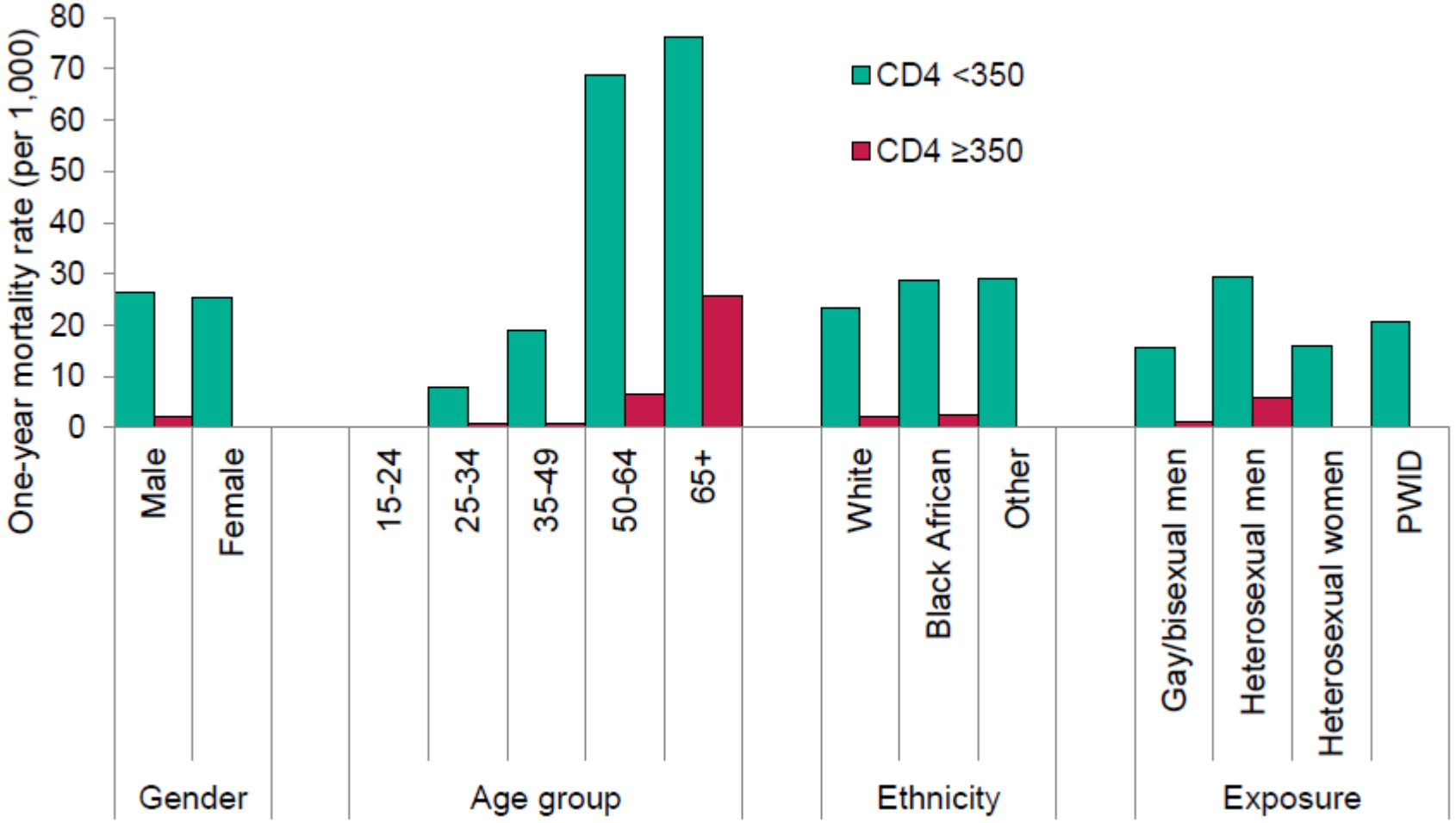
However,

people diagnosed late remain at high risk of death

26.1 per 1,000 population aged 15 to 59 years in the first year of diagnosis .

Public Health England

One-year mortality (per 1,000) among adults newly diagnosed with HIV in 2015 by CD4 count at diagnosis: United Kingdom, 2015



Public Health England

Protecting and improving the nation's health

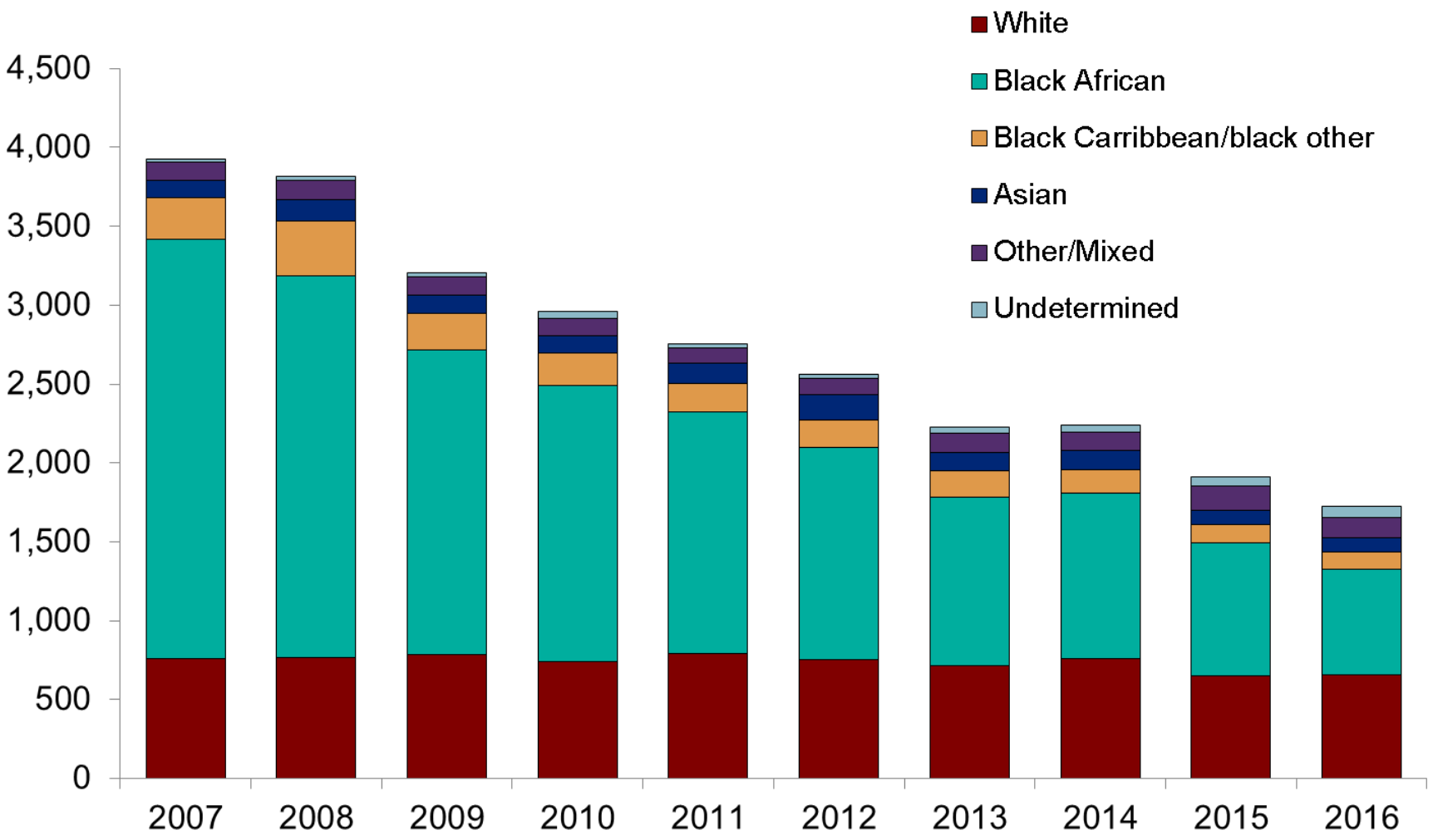
Decline in new HIV diagnoses in heterosexual men and women

There has been a continued decline in new HIV diagnoses among black African heterosexual men and women (4,060 in 2007 to 2,110 in 20163).

This decline is due to changing patterns of migration, with fewer people from high HIV prevalence countries coming to the UK. However, among white heterosexual women and men new HIV diagnoses have remained relatively stable but low at around 750 per year over the past decade.

Public Health England

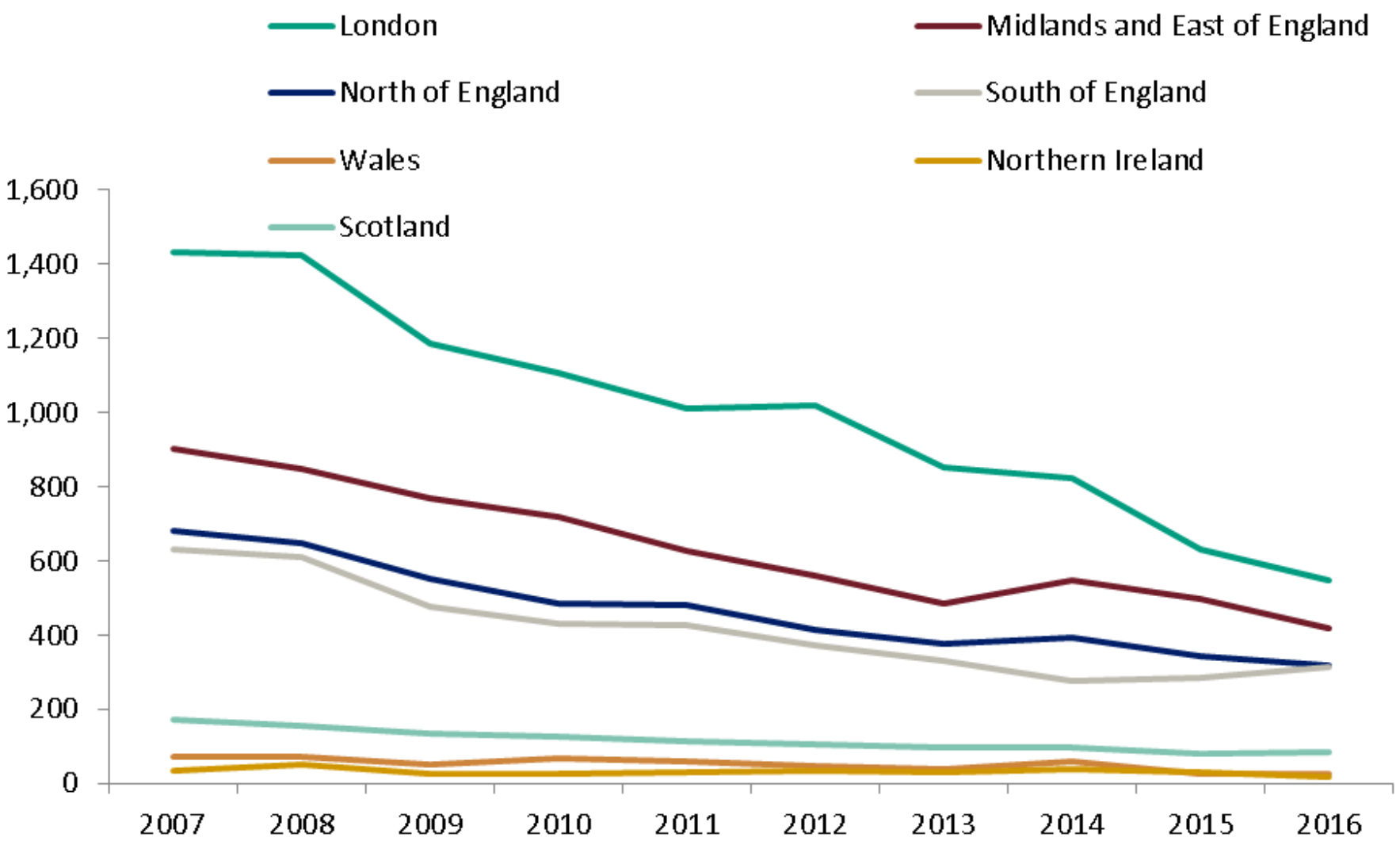
New HIV diagnoses among heterosexuals by ethnicity: United Kingdom, 2007-2016



Values are adjusted for missing ethnicity

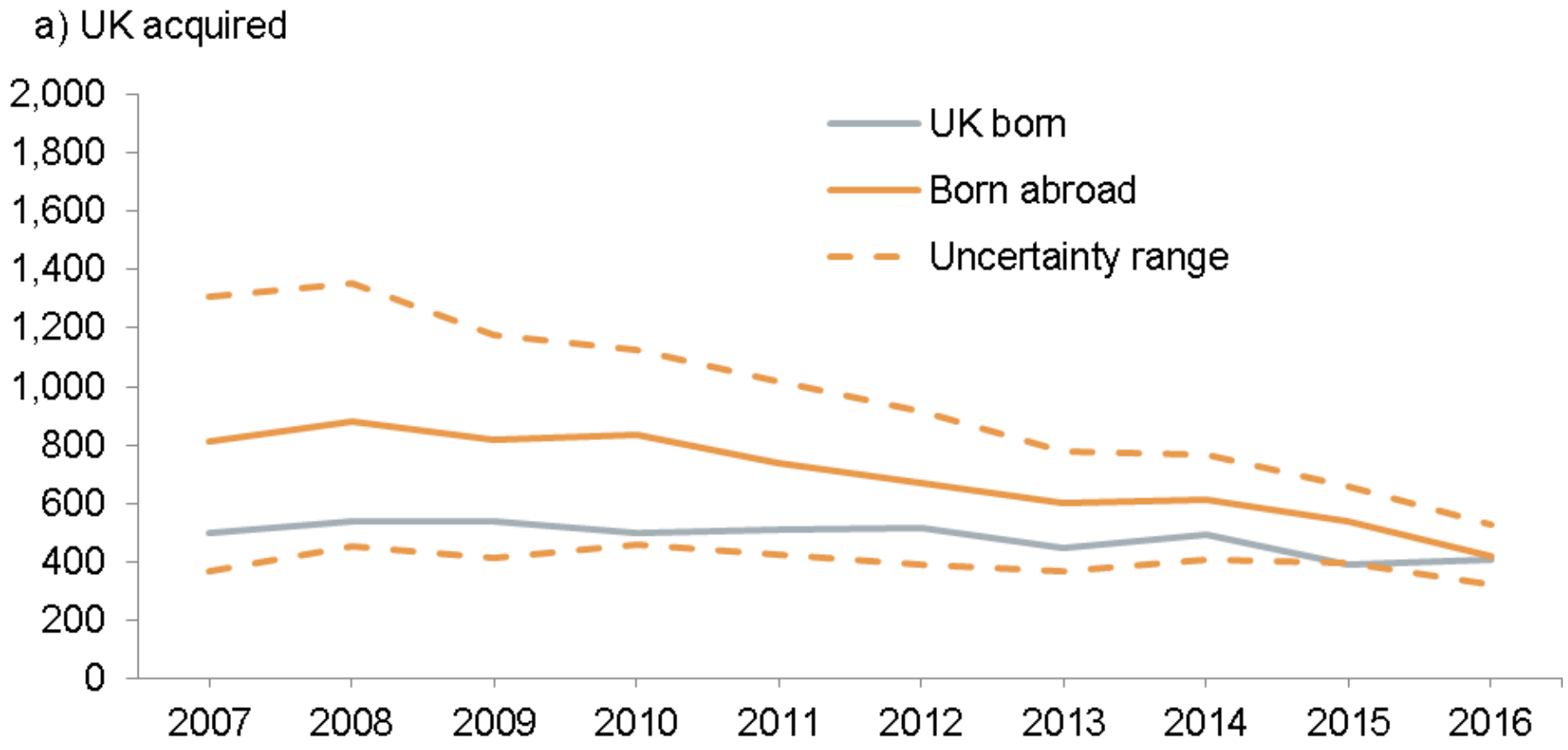
Public Health England

Number of new HIV diagnoses among heterosexual men and women, by region of diagnosis: UK, 2007-2016



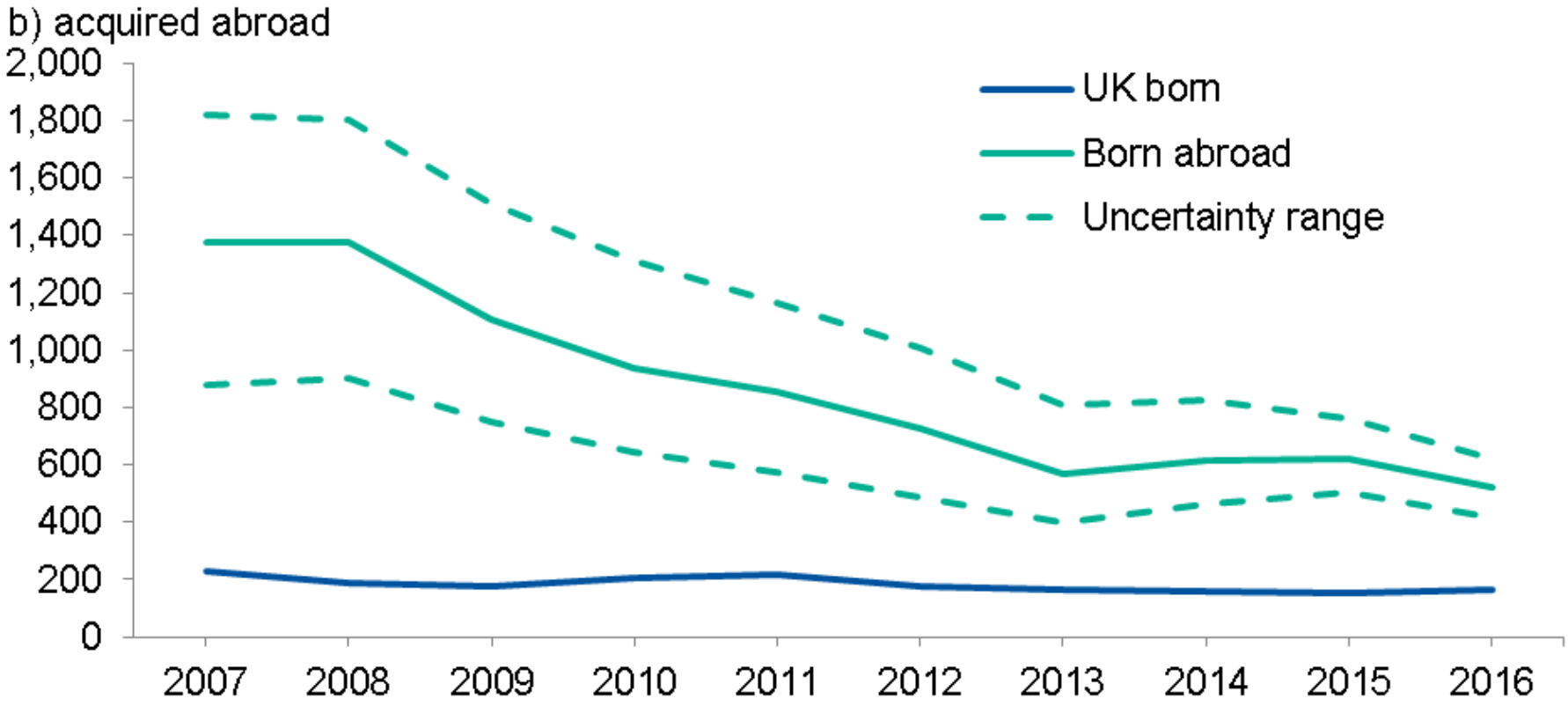
Public Health England

Estimated number of new diagnoses probably acquired in the UK among heterosexual men and women, by country of birth: UK, 2007-2016



Public Health England

Estimated number of new diagnoses probably acquired abroad among heterosexual men and women, by country of birth: UK, 2007-2016



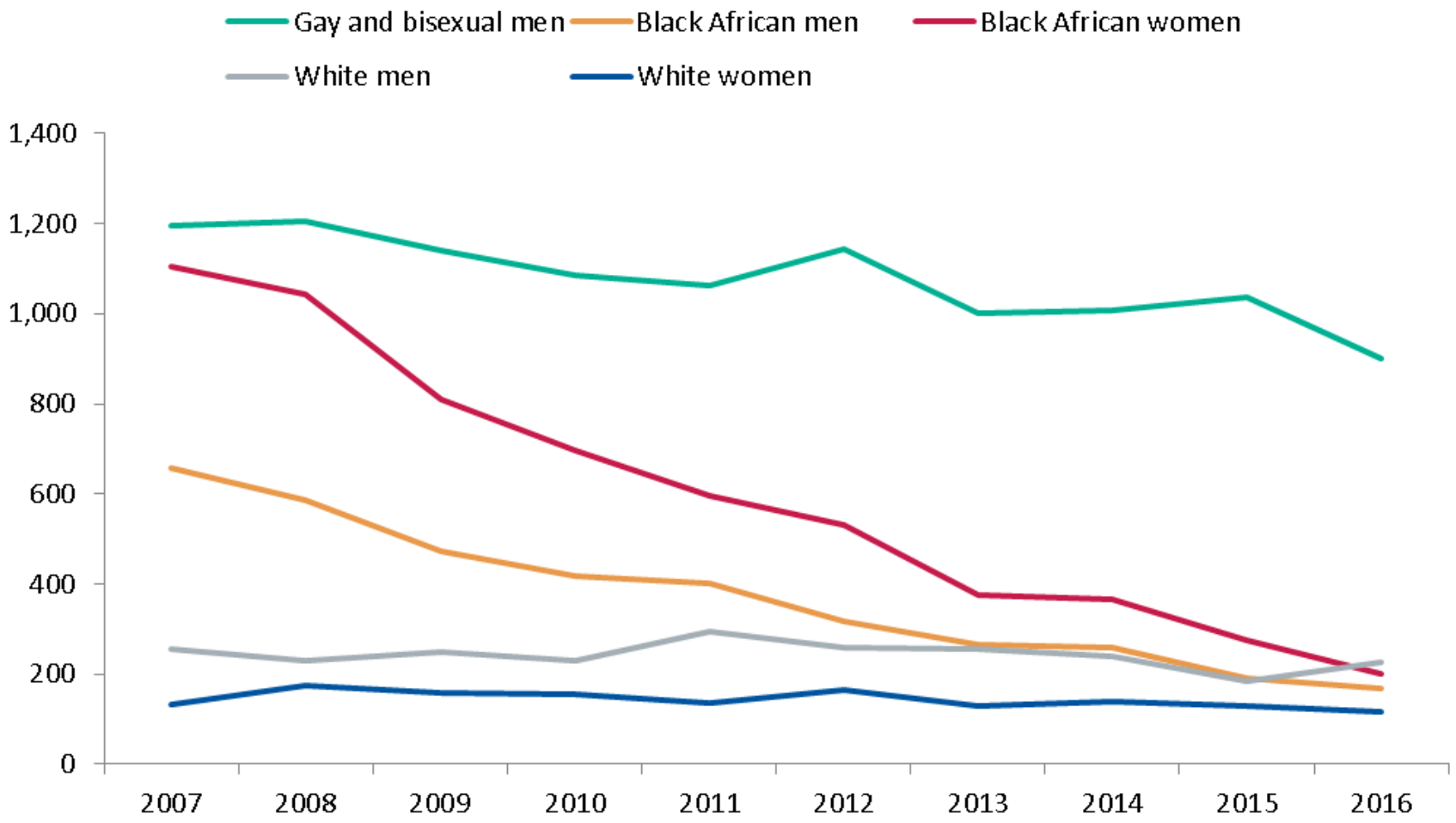
Public Health England

Protecting and improving the nation's health

Challenges: reducing late diagnosis frequent testing

Public Health England

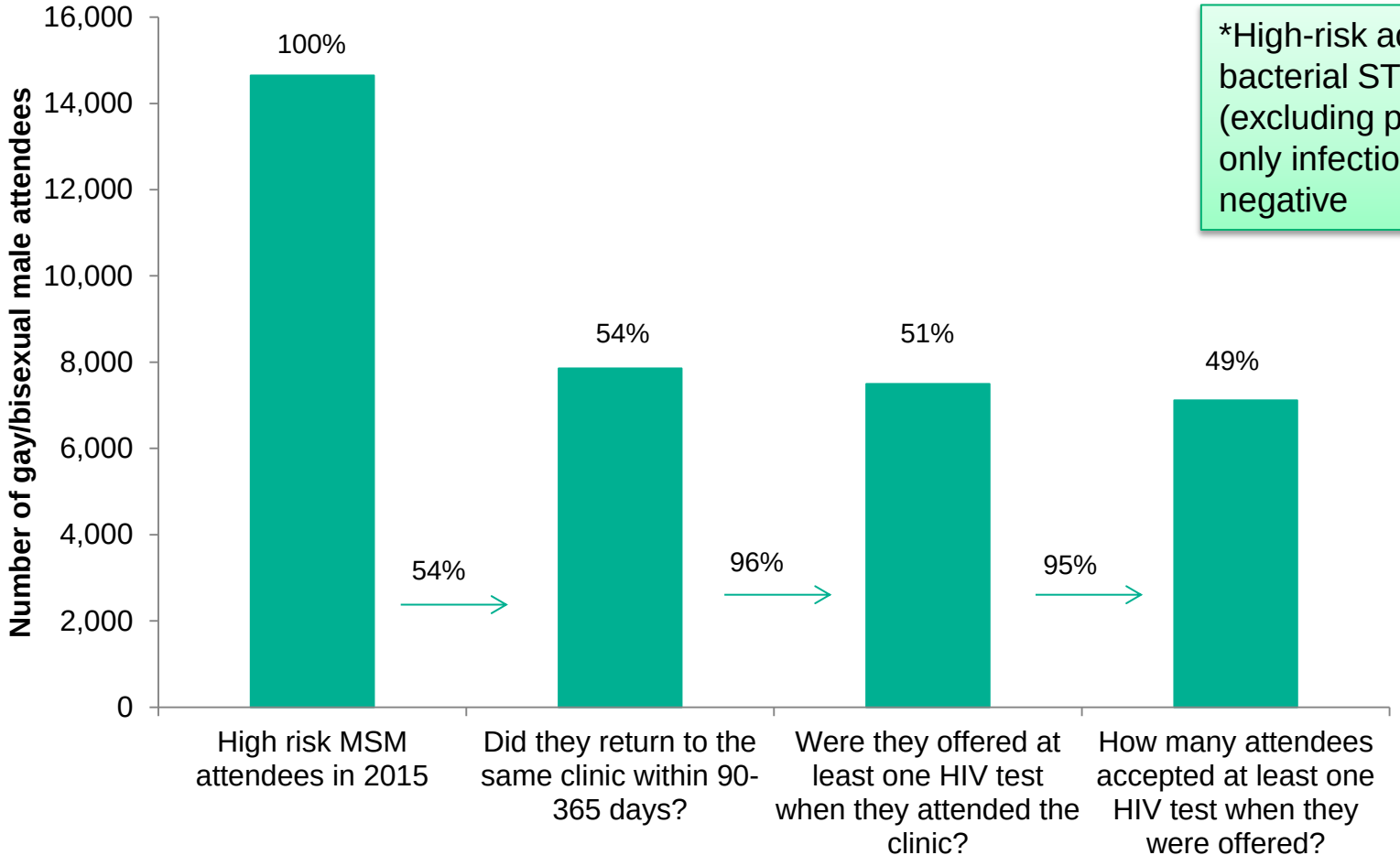
Adjusted number of people diagnosed late by exposure group: UK, 2007-2016



Adjusted for missing CD4 count at diagnosis.

Public Health England

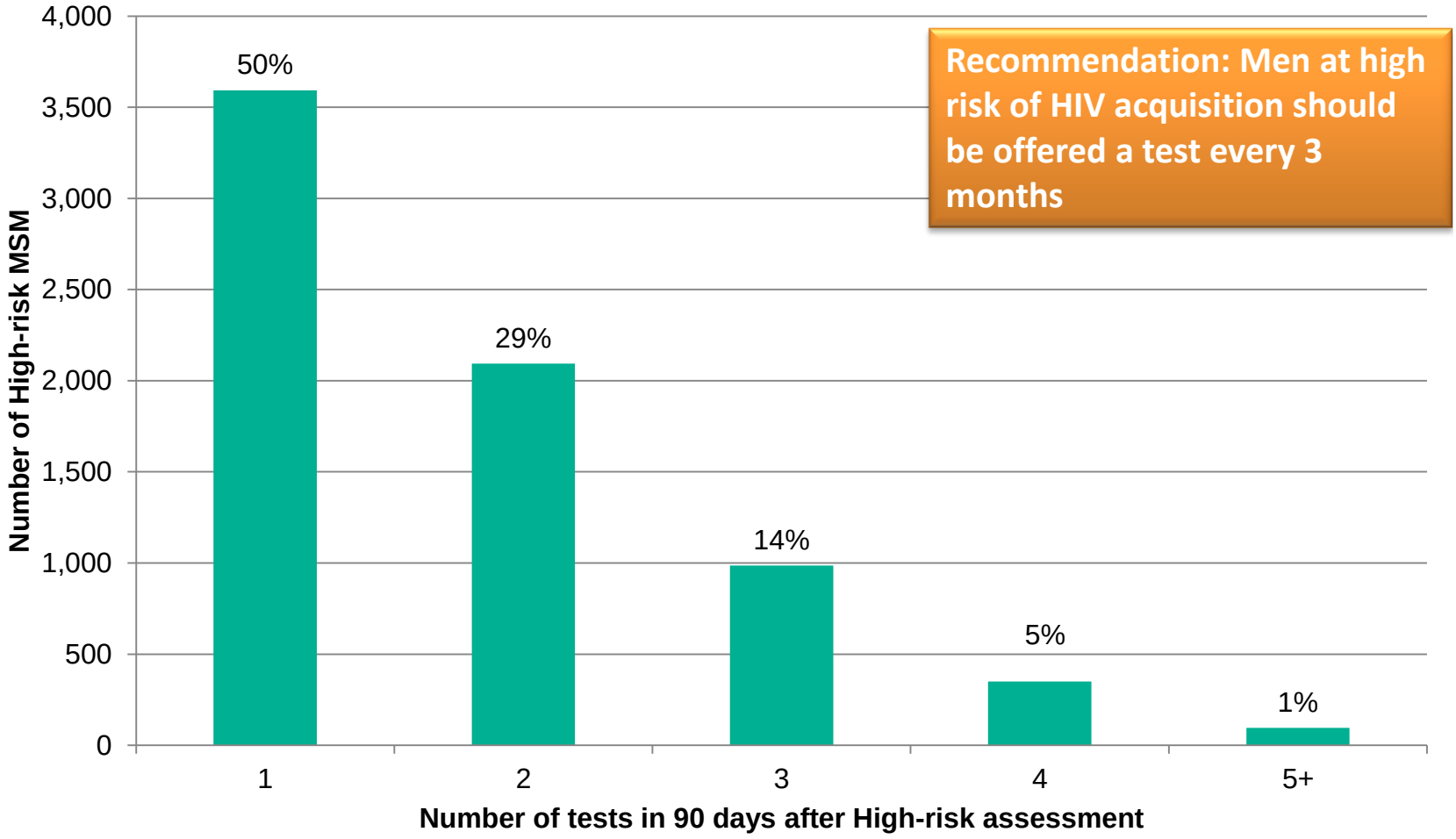
HIV Testing Eligibility Cascade in gay & bisexual men of high risk (N= 14,650) attending services in London, 2015-16



*High-risk activity = bacterial STI diagnosis (excluding pharyngeal-only infections) in a HIV negative

Public Health England

Number of HIV tests among gay & bisexual men of high risk in 2015 seen at the same STI clinic in 2016, London (n=7,117)



Public Health England

Beyond viral suppression

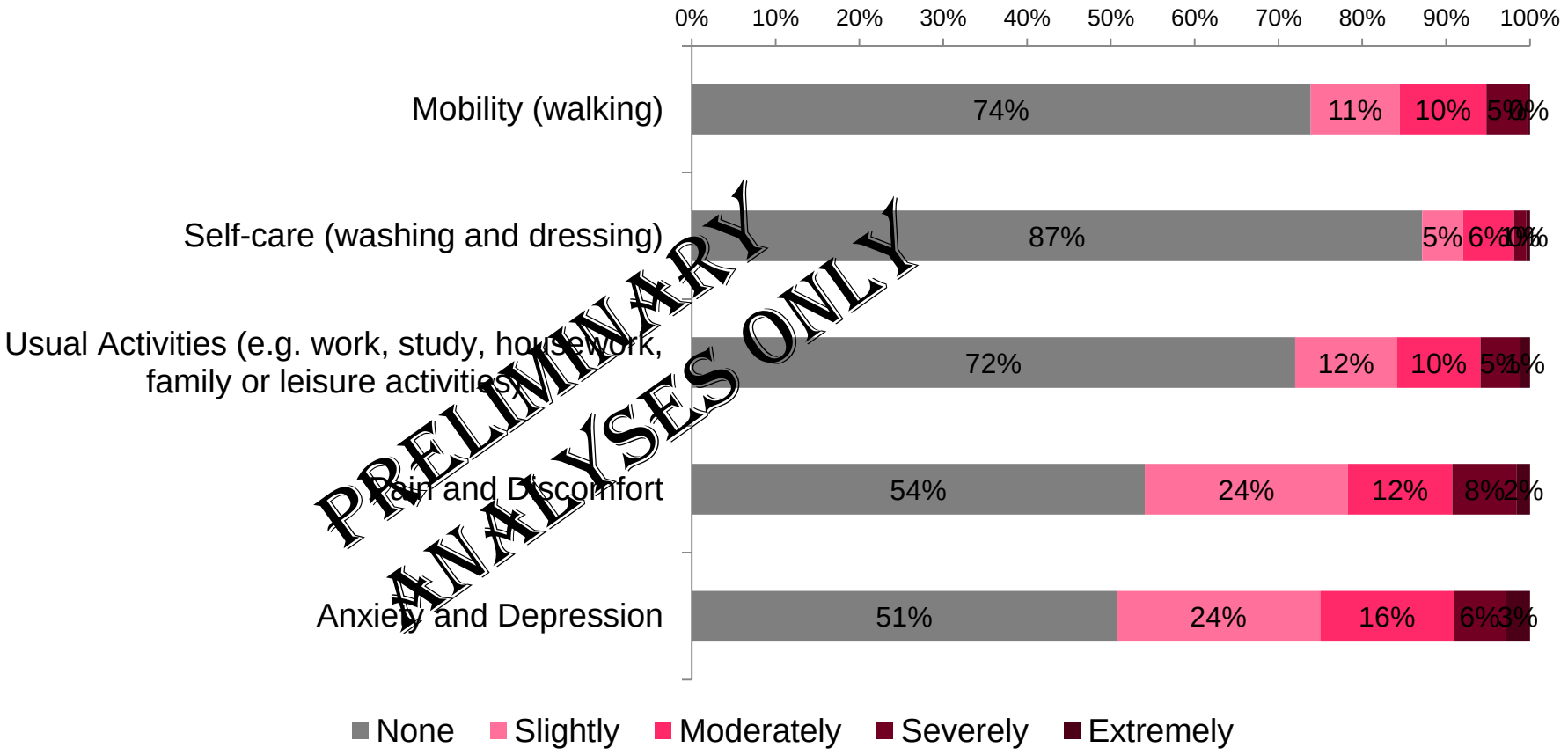
Monitoring Health and Wellbeing

Quality of life and health inequalities

Public Health England

Quality of Life – EQ-5D-5L

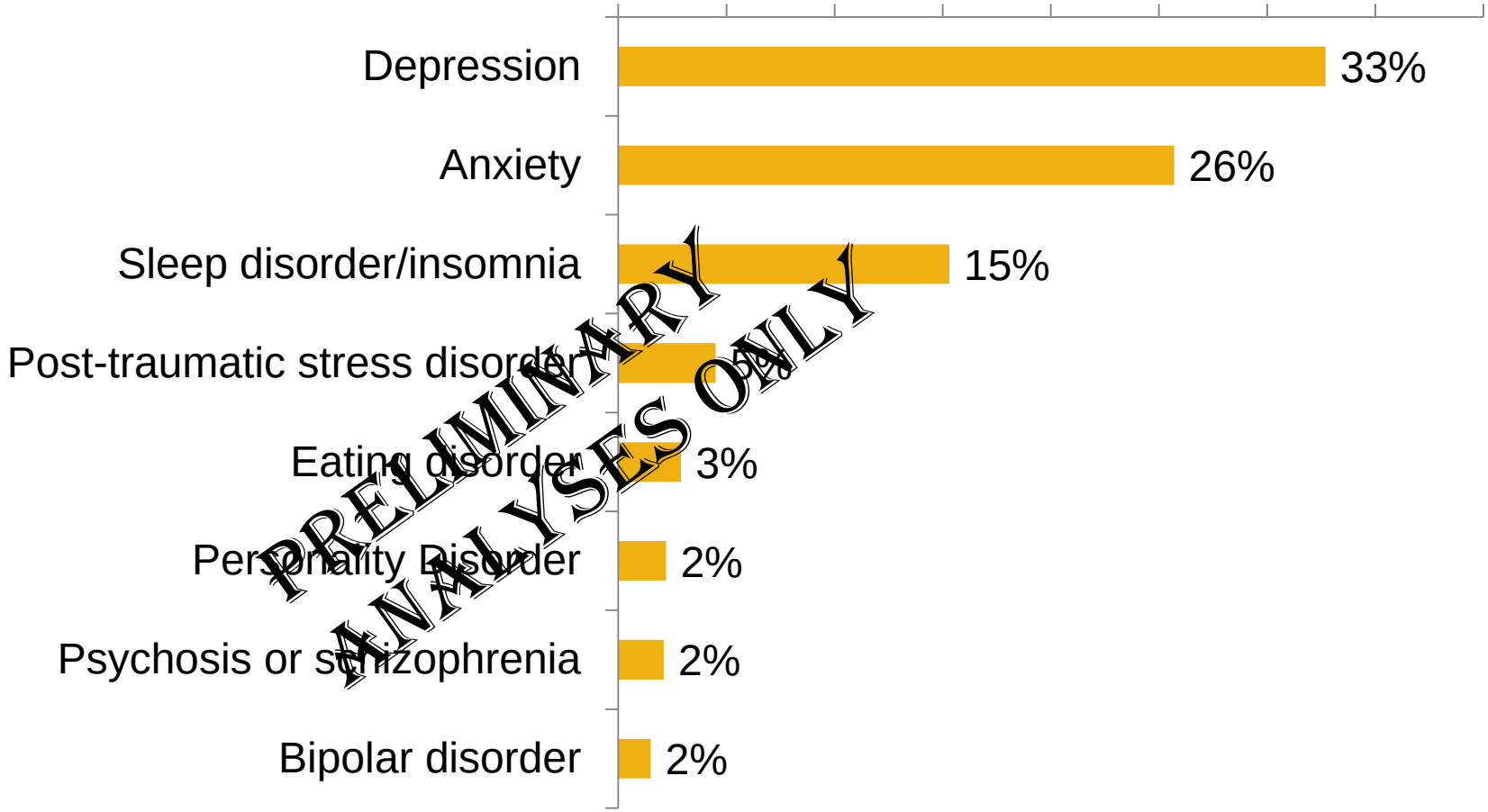
"Below are some statements about your daily life and activities Please tick the box that best describes how you feel TODAY."



Public Health England

Mental health conditions

"Have you ever been diagnosed with any of the following..."

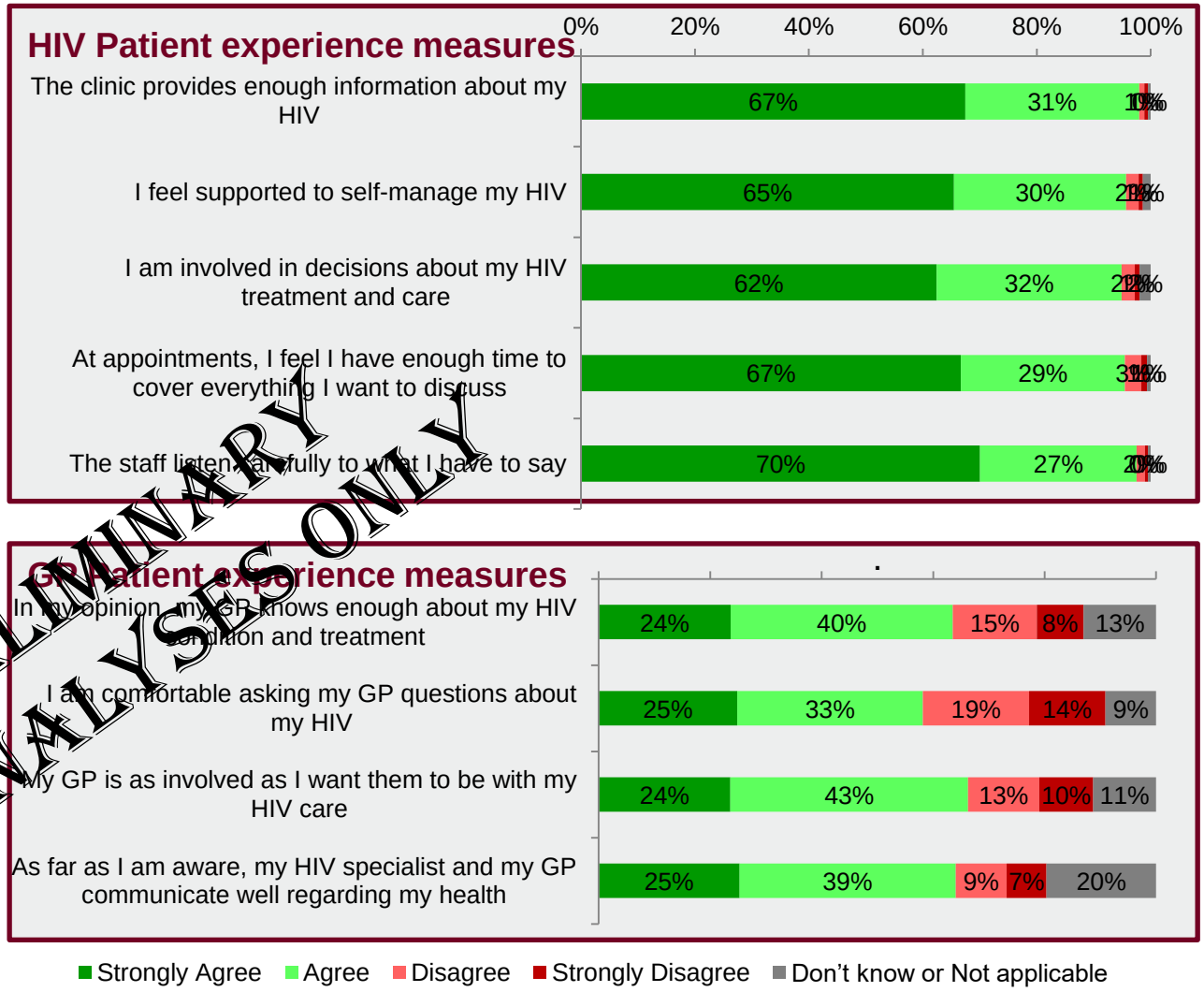


Public Health England

HIV and GP service experience

"Overall, on a scale from 0 to 10, how would you rate your GP/HIV clinic?"

GP services	**6.9**
HIV services	**9.2**



Public Health England

Recommendations

With progressive strengthening of combination prevention (including condom use, expanded HIV testing, prompt ART and availability of pre-exposure prophylaxis (PrEP)), HIV transmission AIDS and HIV-related deaths could be eliminated in the UK. The recent encouraging changes are dependent upon sustained prevention efforts. The inconsistencies between groups and geographies demonstrate that combination prevention needs to be replicated for all those at risk of acquiring of HIV, whoever they are and wherever they live.

The HIV PrEP Impact Trial4 is a new component of PHE's HIV Prevention Programme. Beginning in October 2017, the 3-year trial5 of 10,000 participants will address outstanding questions on PrEP need, uptake and duration of use in those at high risk of HIV acquisition in England. Almost 200 sexual health clinics are being recruited as trial sites with 1,000 participants receiving PrEP by early November 2017.

A new policy of immediate ART at HIV diagnosis is currently being considered by NHS England which would complement current Treatment as Prevention (TasP) policy. Swift implementation would ensure all people diagnosed with HIV achieve untransmissible levels of HIV.
As people with HIV continue to age, it is critical that HIV and other services continue to evolve to meet the needs of people living with HIV including the management of comorbidities and other complex health conditions.

Public Health England

Recommendations: testing

1. Sexual health services should consider how they can ensure that:

- all gay and bisexual men are offered and recommended regular (ie annual) HIV tests
- all gay and bisexual men at high risk of HIV acquisition (eg a recent anogenital STI diagnosis), are offered and recommended frequent (ie every 3 months) HIV tests
- all black African men and women are offered and recommended regular HIV tests
- HIV partner notification improves for heterosexuals and gay and bisexual men
- all other attendees are offered and recommended to have HIV tests

2. General practices and secondary care in high and extremely high prevalence areas should consider how they can ensure that they offer and recommend HIV testing to patients in line with NICE recommendations.

3. Commissioners should consider how they can ensure that people at higher risk of HIV acquisition have access to a range of testing options including community testing and self-sampling.

4. Providers of health services to patients with hepatitis B and C, TB and people who inject drugs should consider how they can ensure that all patients are offered and recommended to have HIV tests.

5. Providers of HIV testing in prisons should consider how they can ensure that HIV testing is implemented and monitored effectively.

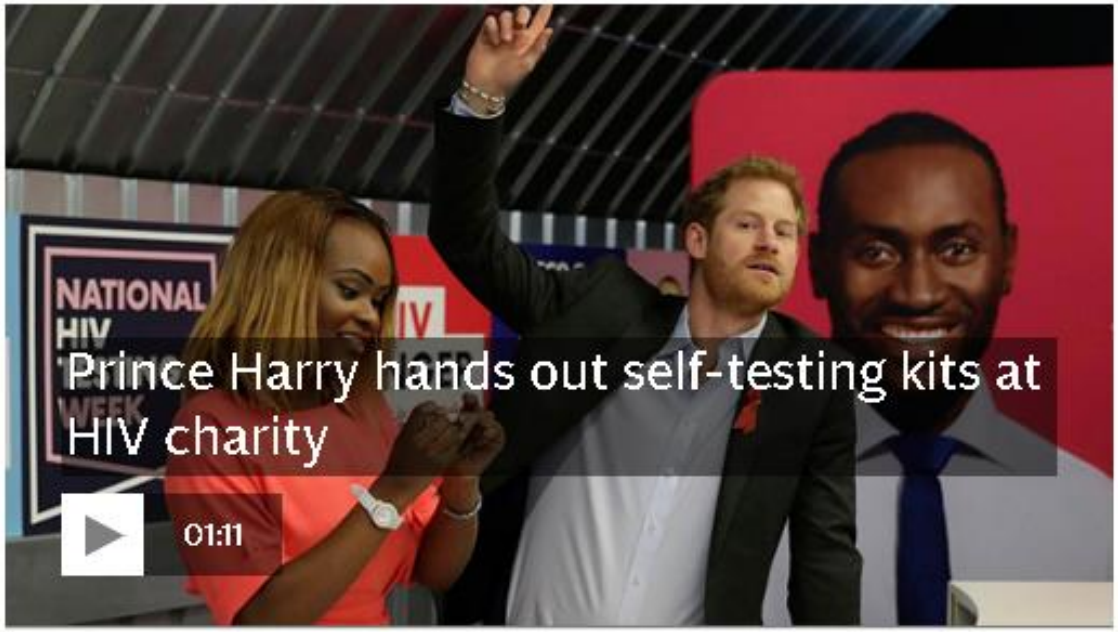
6. Antenatal service providers and blood, tissue and organ donation services should continue to maintain current high levels of HIV testing.

Public Health England

Protecting and improving the nation's health

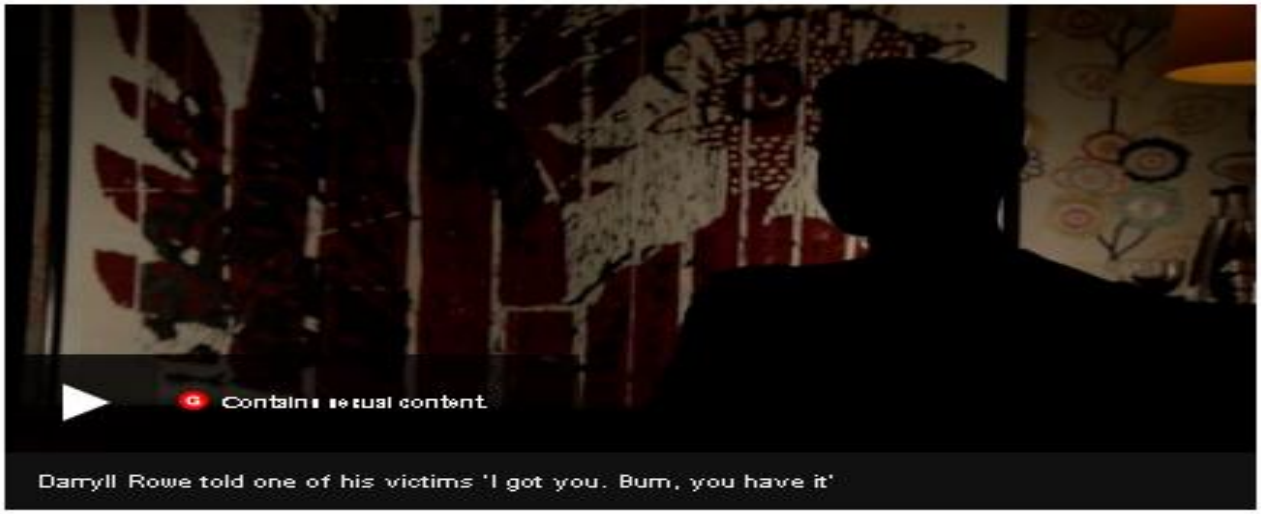
"We celebrate these extraordinary findings which are the result of many years of work involving many key players and organisations from the whole HIV sector. By continuing to invest in effective preventative measures including condom use, expanded HIV testing, prompt treatment and the use of PrEP, HIV transmission, AIDS and HIV-related deaths could well be eliminated in the UK in the next few years."

Prince Harry plays shopkeeper as he hands out free HIV testing kits



[redacted] guilty of infecting men with HIV

15 November 2017 | Sussex



Darryll Rowe told one of his victims 'I got you. Bum, you have it'

A man has been convicted of trying to infect 10 men with HIV in a "campaign" to infect as many as possible.

Daryll Rowe infected five men he had unprotected sex with and sabotaged the condoms of another five in Brighton and Northumberland.

After sex with some of the men he texted mocking messages, including "I have HIV LOL. Oops!" and "I'm riddled".

During the trial hairdresser Rowe, 27, claimed to believe months of drinking his own urine cured him of the virus.

Public Health England

Protecting and improving the nation's health

HIV clinical dashboard

Laura Waters & PHE HIV team
(especially Zheng Yin)

Public Health England

HIV dashboard: a history

Time	Developed by	Geography	Details
Past 2008-2012	London HIV consortium	London	1) % linkage to care after Dx 2) % ART coverage in pts with CD4 <350 3) % VL <200 among pts receiving ART for more than 12 months 4) One year mortality by CD4 at dx
Present 2013-present	Clinical Reference Group	England	Nine indicators
Future 2018 plus	Clinical Reference Group	England	Time to treatment? Patient satisfaction measure from Positive Voices?

Public Health England

National 2015 HIV Dashboard Indicators

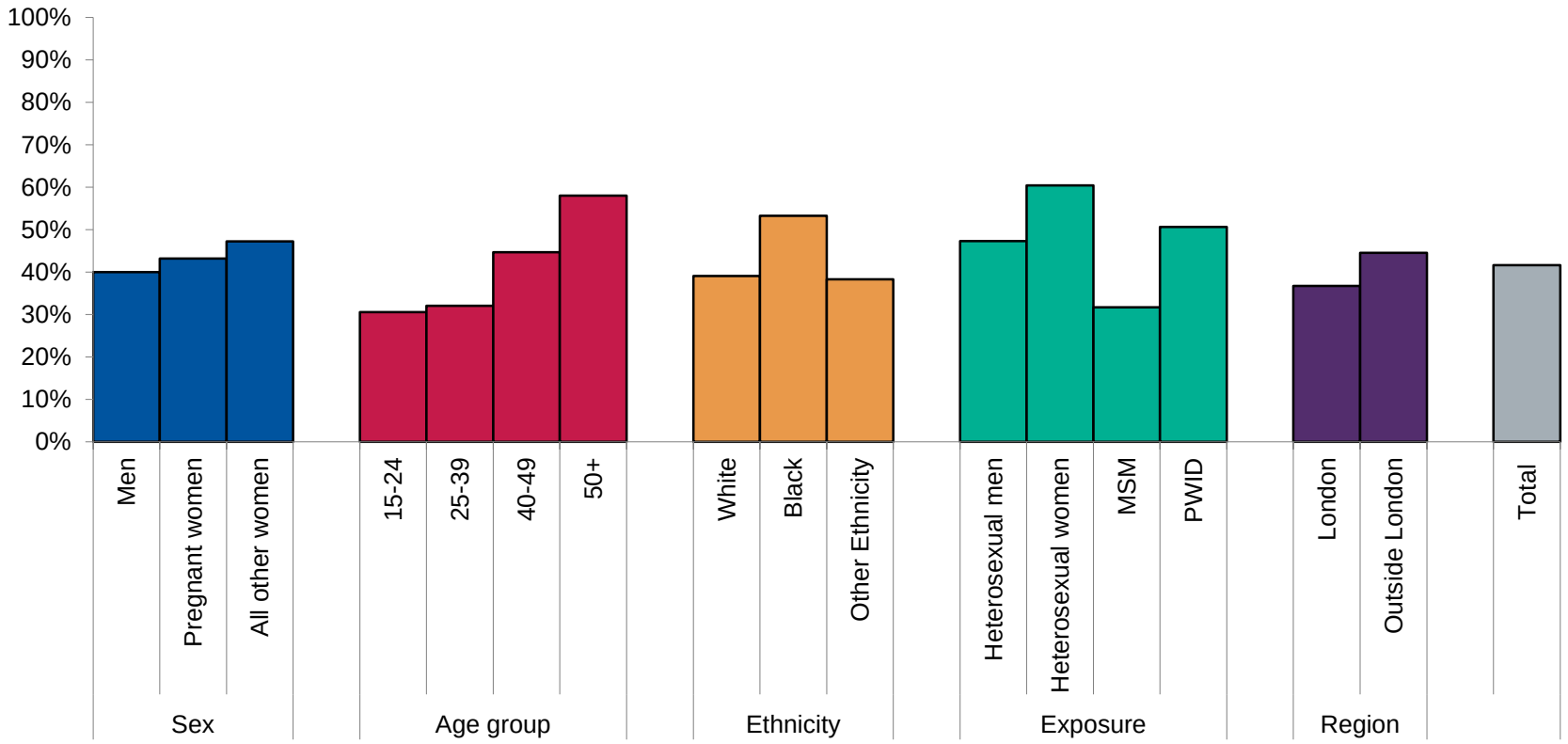
Description	Proportion (%)
Late HIV diagnosis: Proportion of adults who were diagnosed at a late stage of HIV infection (CD4<350 cells/mm^3).	38%
Very late HIV diagnosis: Proportion of adults who were diagnosed at a very late stage of HIV infection (CD4<200 cells/mm^3).	21%
Newly diagnosed adults seen for care within 1 month: Proportion of newly diagnosed adults with an attendance date within one month of diagnosis date.	89%
Virological success in people established on ART: Proportion of adults achieving an undetectable viral load (<200 copies/ml) at least one year after starting ART.	95%
Virological success in people newly starting ART: Proportion of adults achieving an undetectable viral load (<200 copies/ml) between 6-12 months after starting ART.	95%
ART coverage (all adults): Proportion of adults seen for HIV care and receiving ART.	92%
ART coverage (adults with the last CD4 count <350): Proportion of HIV diagnosed adults with last CD4<350 receiving ART.	93%
Retention in care (newly diagnosed): Proportion of newly diagnosed adults retained in care in the following year of diagnosis	88%
Retention in care (all adults): Proportion of adults retained in care in the following year	94%

Public Health England

Late HIV diagnosis

Public Health England

Proportion of HIV diagnoses made at a late stage of infection*, by risk group: UK, 2016

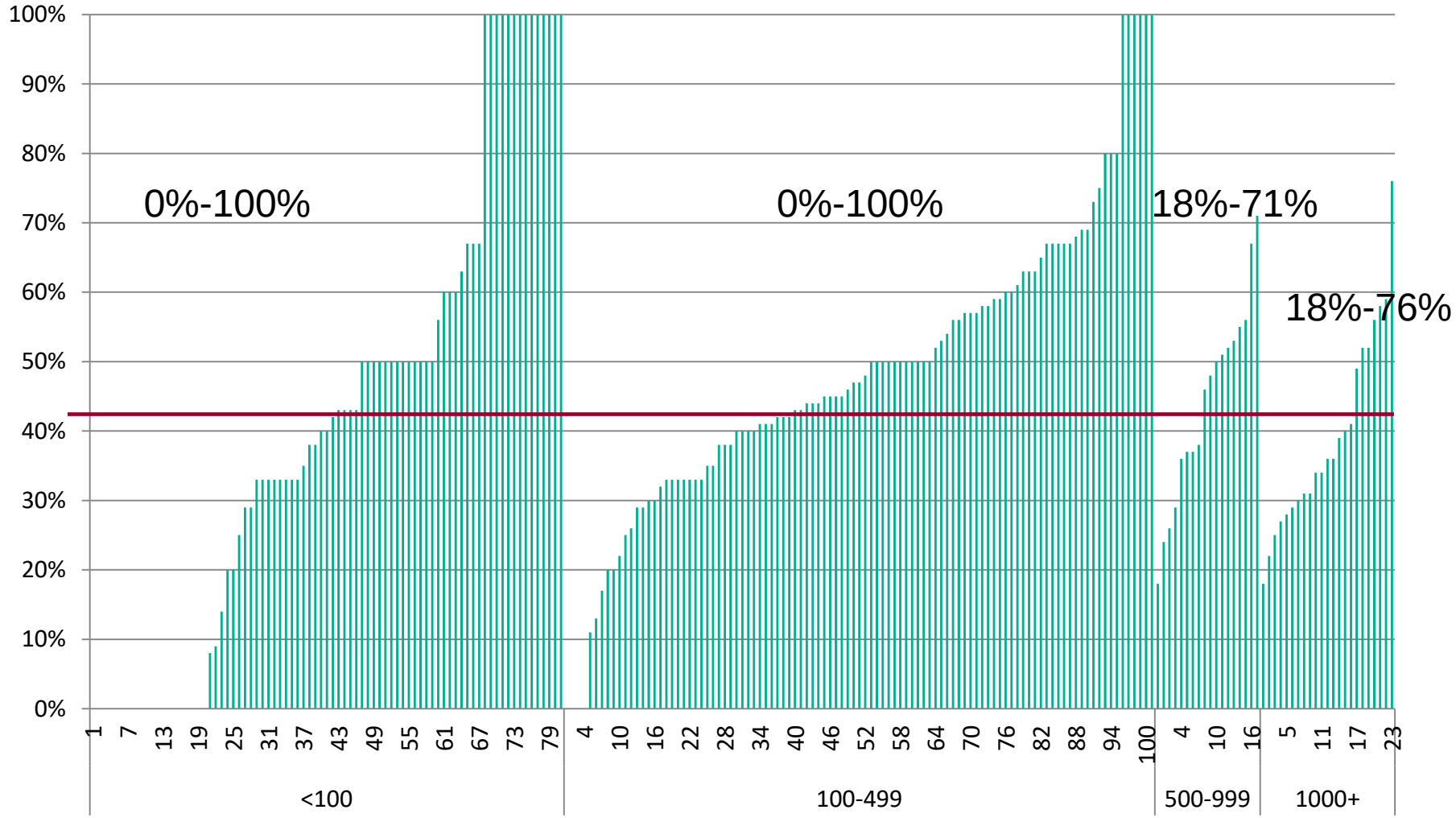


*Adjusted for missing CD4 count at diagnosis.

Late HIV diagnosis 2015 by clinic size*

Public Health England

National: 38%



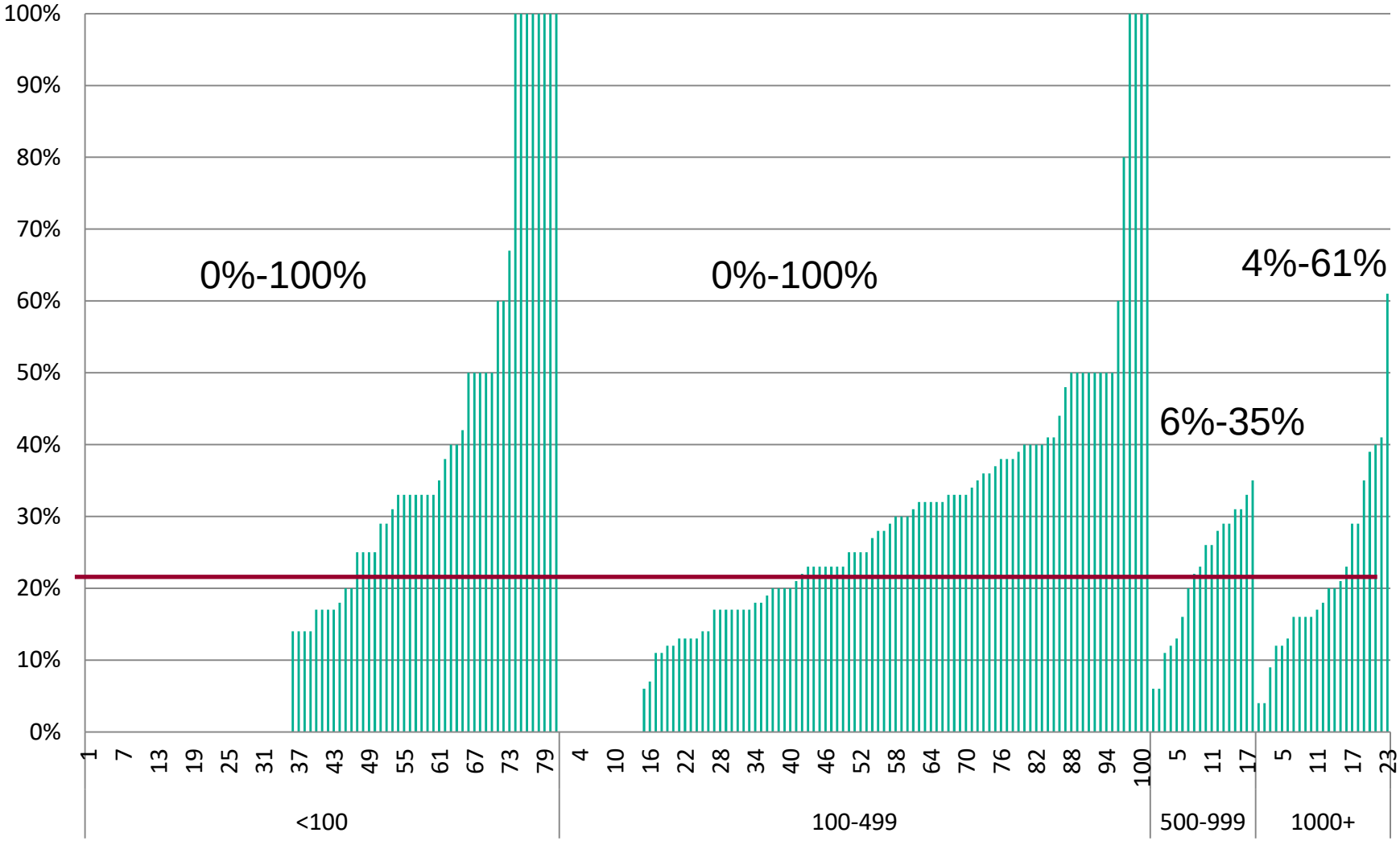
Proportion of adults who were diagnosed at a late stage of HIV infection (CD4<350 cells/mm^3)

*clinic size: number of people seen for care (sites that provide care) or number of diagnoses in last 10 years (non-care sites)

Public Health England

Very late HIV diagnosis 2015 by clinic size

National:21%



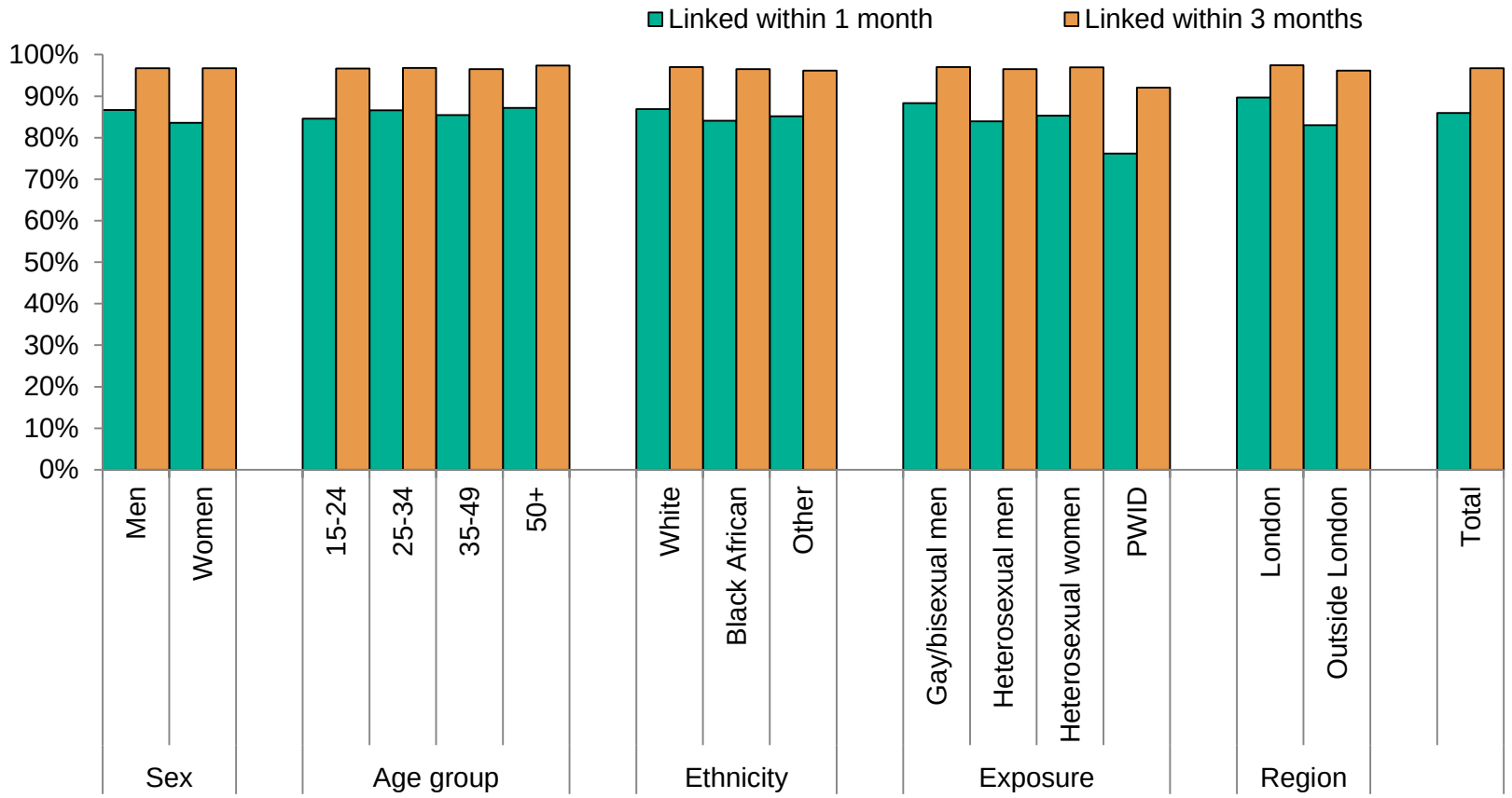
 Proportion of adults who were diagnosed at a very late stage of HIV infection (CD4<200 cells/mm^3)

Public Health England

Newly diagnosed adults seen for care within 1 month

Public Health England

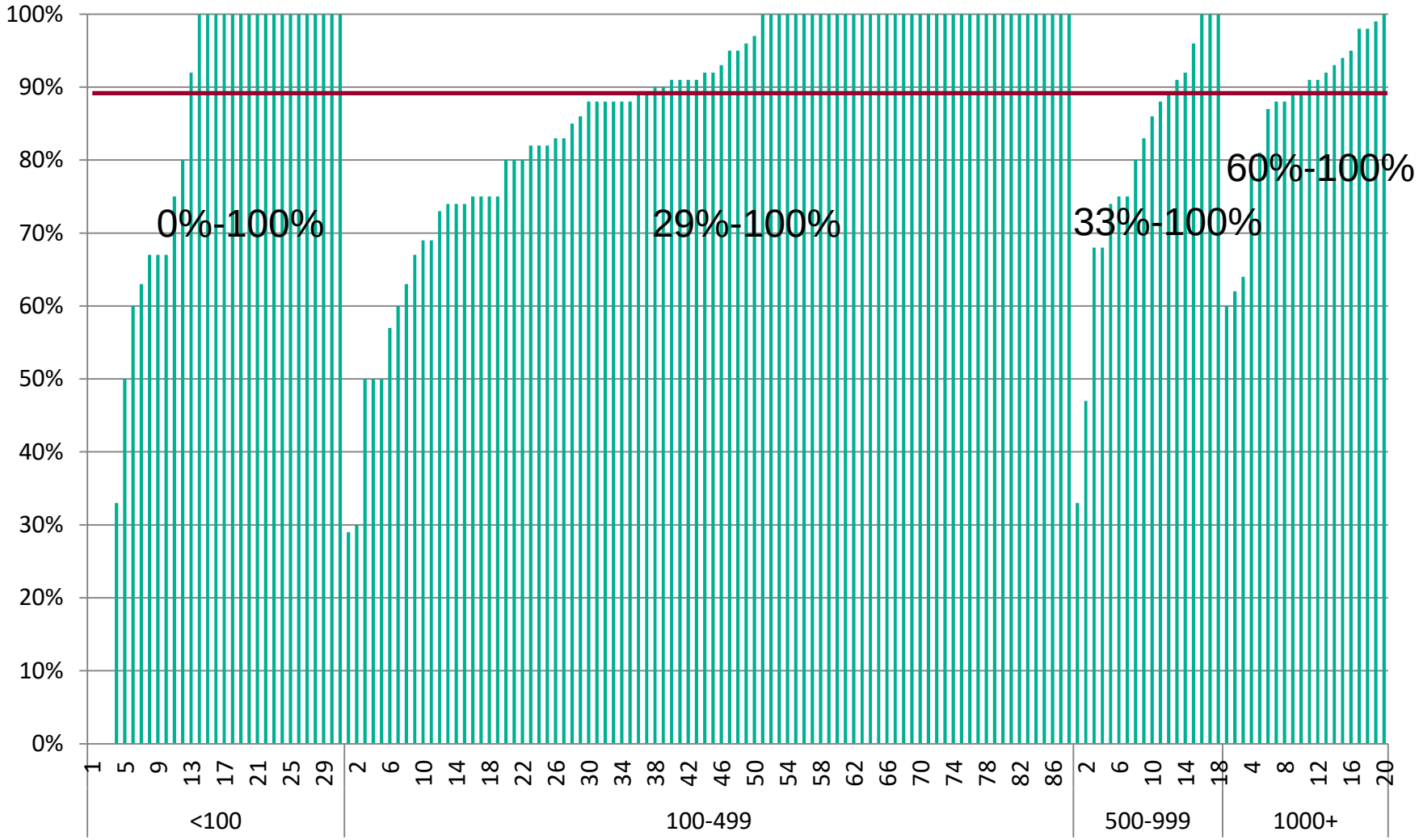
Linkage to care: proportion of adults with a CD4 count within one and three months of diagnosis: UK, 2015



Public Health England

Newly diagnosed adults seen for care within 1 month by clinic size

National: 89%



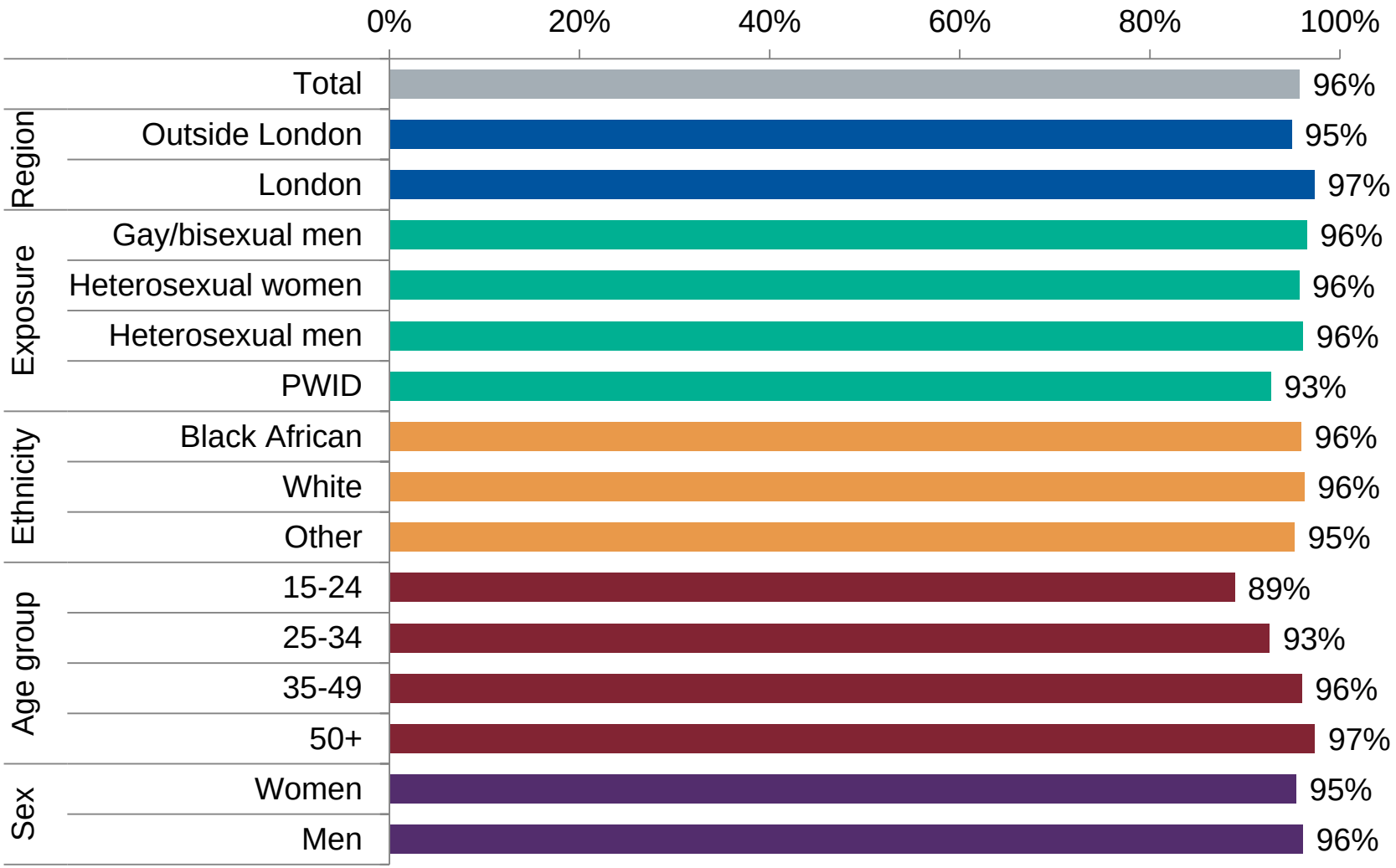
 Proportion of newly diagnosed adults with an attendance date within one month of diagnosis

Public Health England

ART coverage

Public Health England

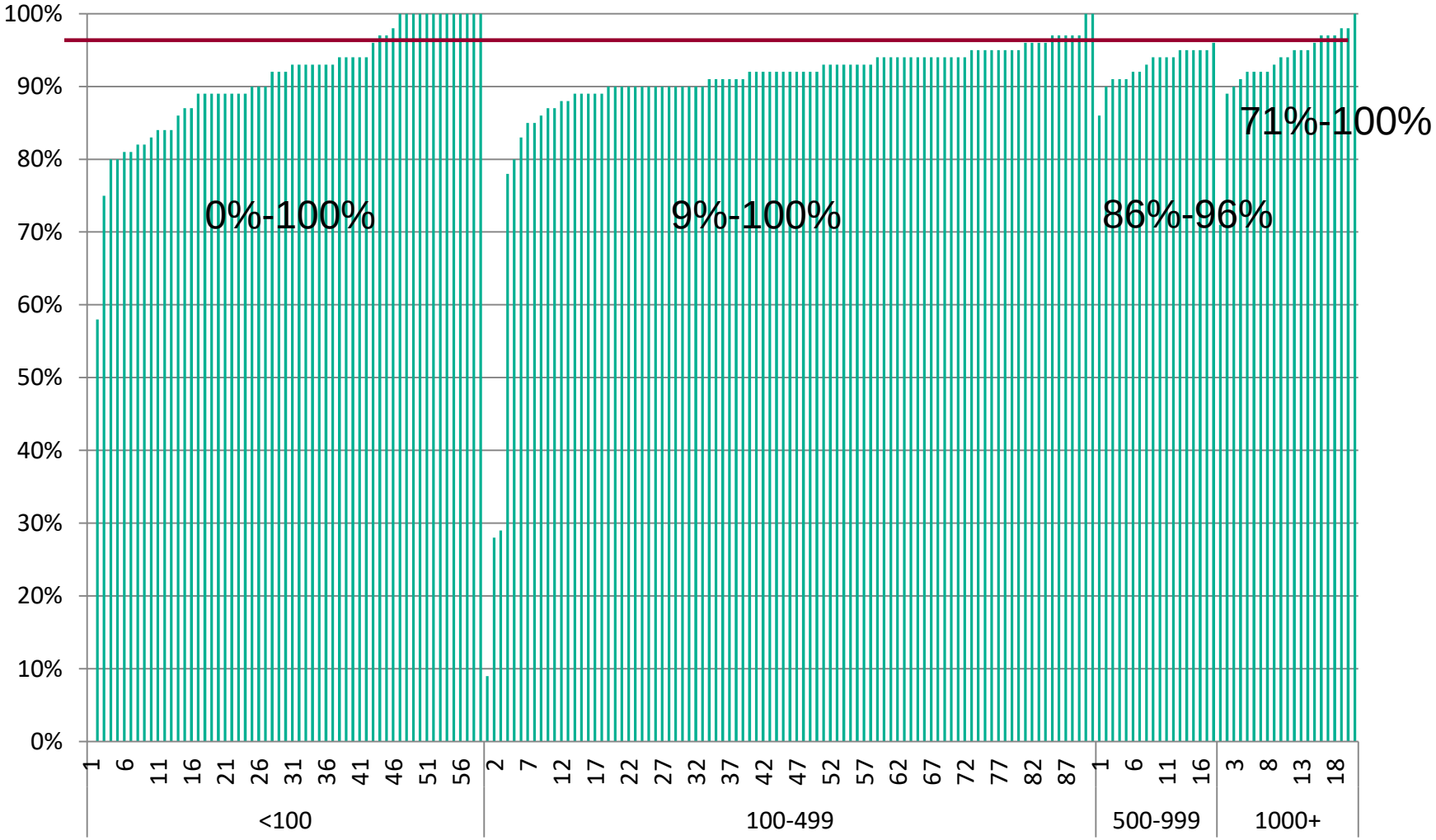
ART coverage among people accessing HIV care, UK, 2016



Public Health England

ART coverage (all adults) by clinic size

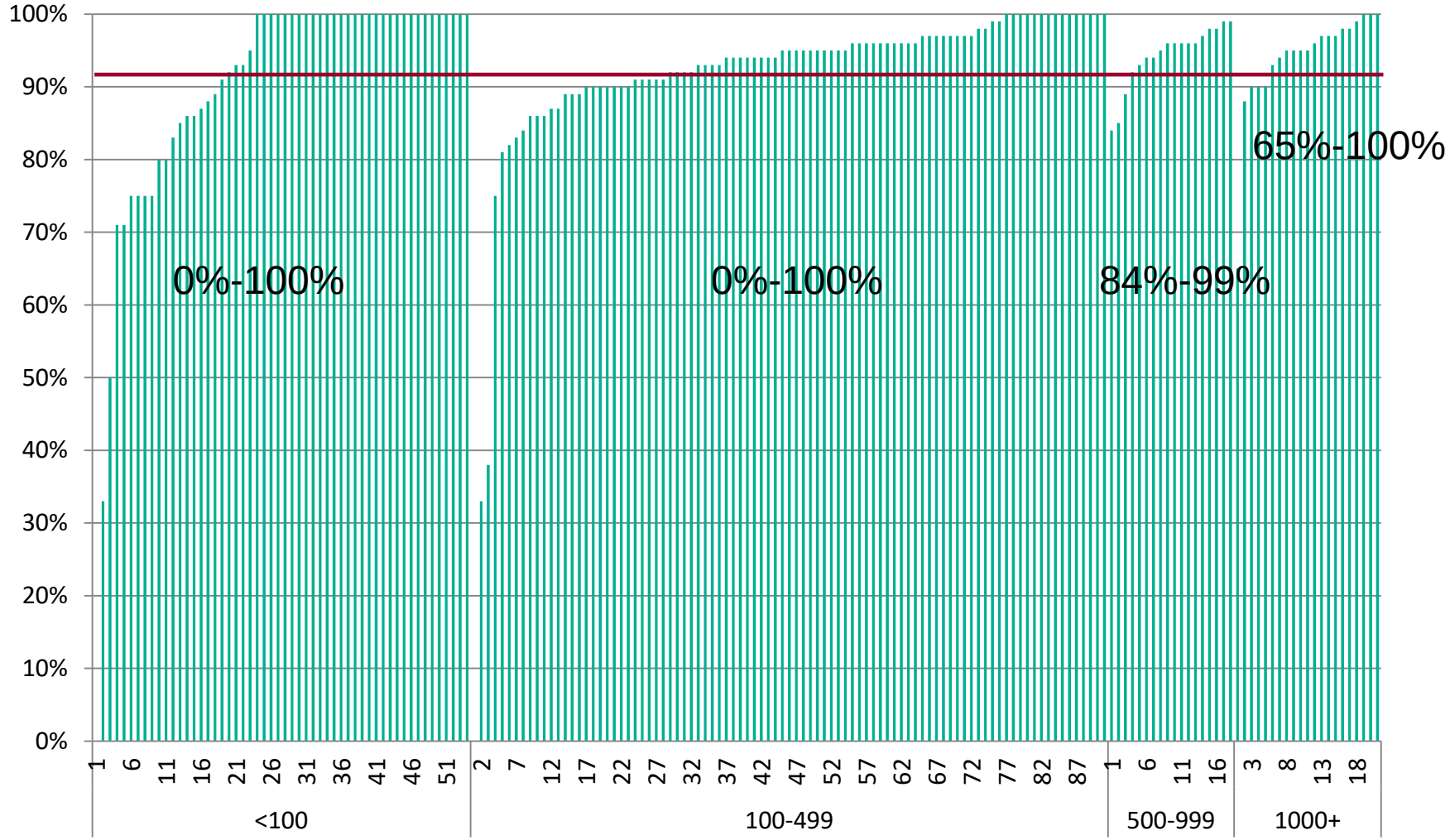
National: 92%



Public Health England

ART coverage (adults with the last CD4 count <350) by clinic size

National: 93%

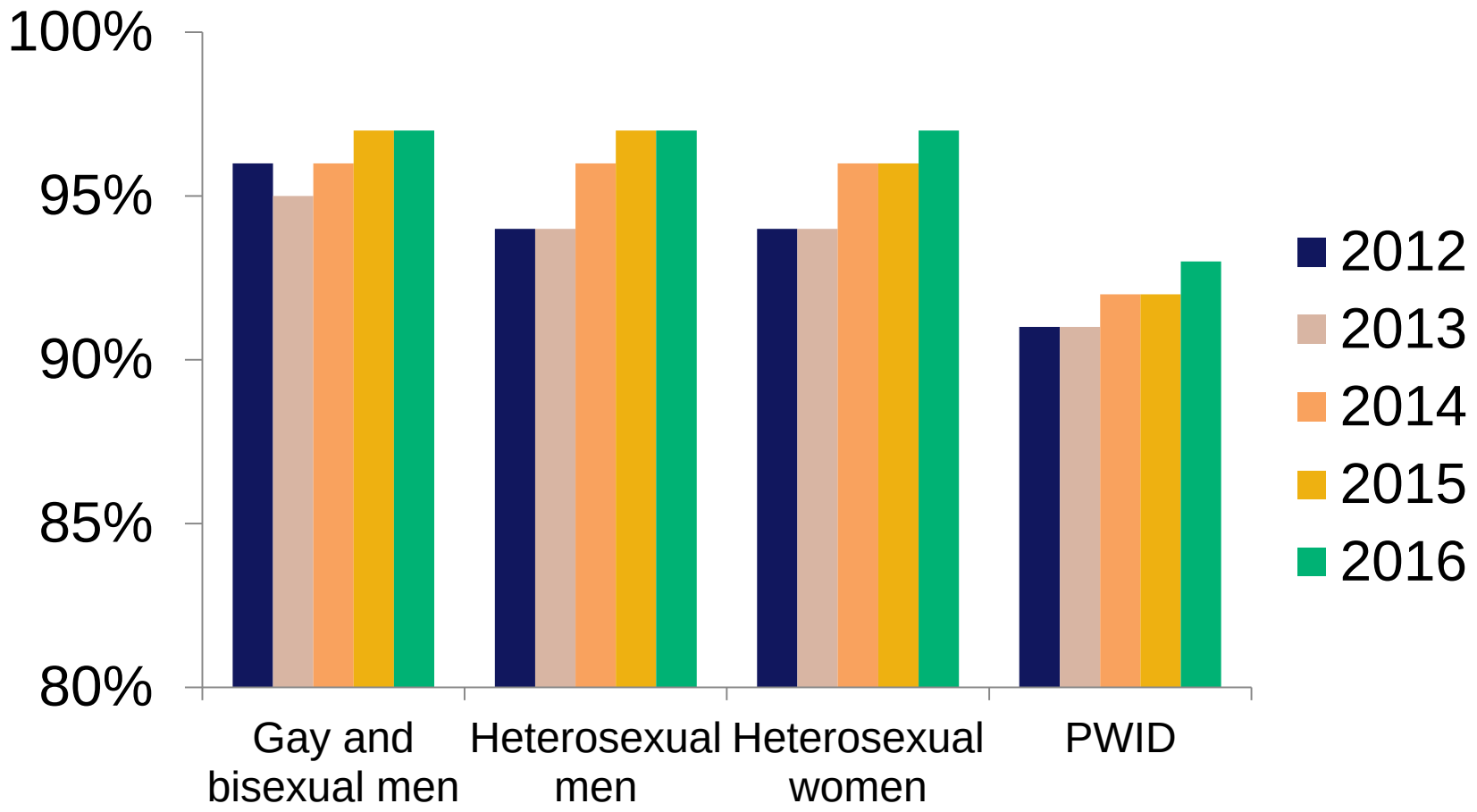


Public Health England

Virological success

Public Health England

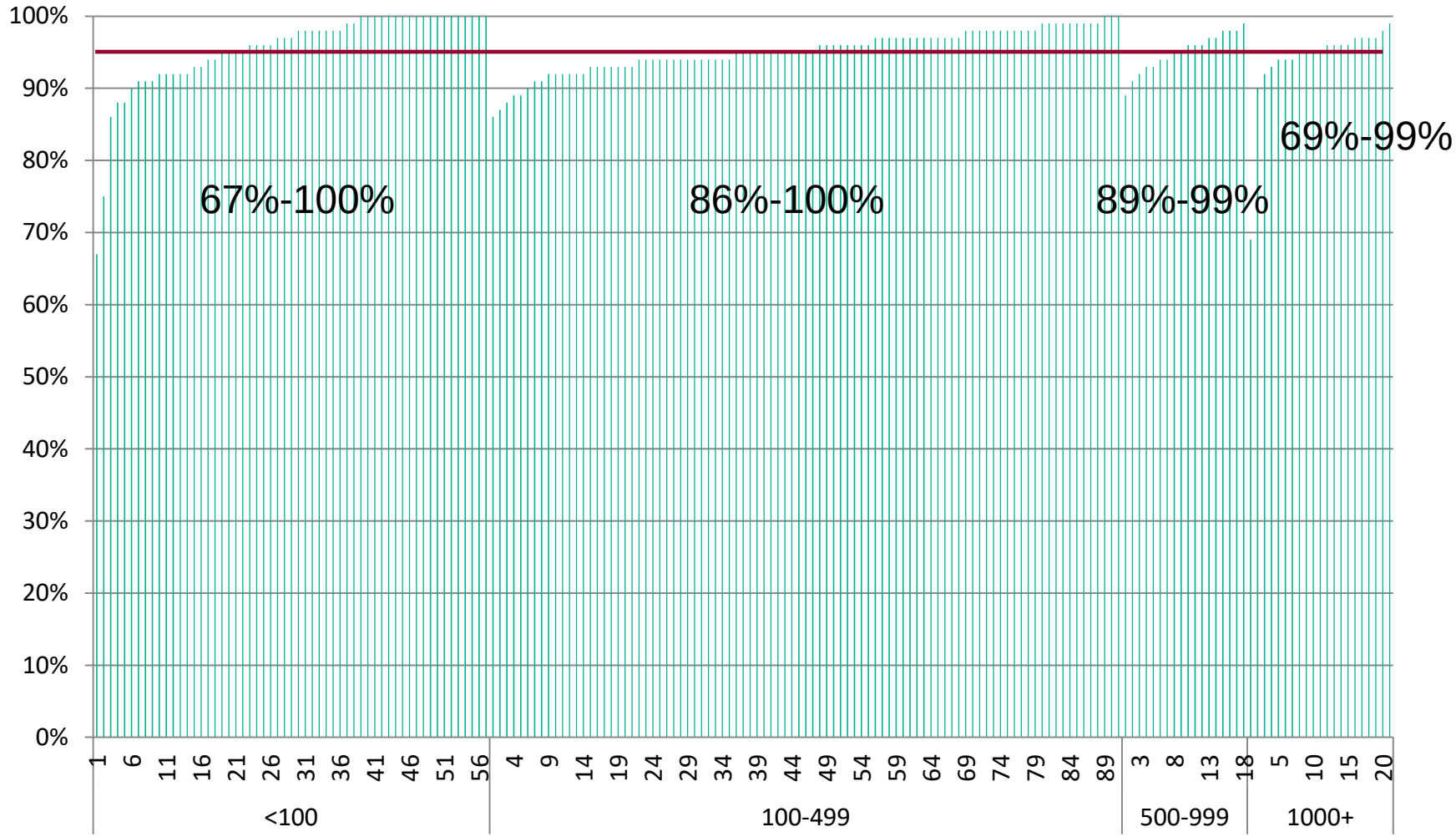
Proportion of people receiving ART with virological suppression (<200 copies/mL: UK, 2012-2016



Public Health England

Virological success in people established on ART by clinic size

National: 95%

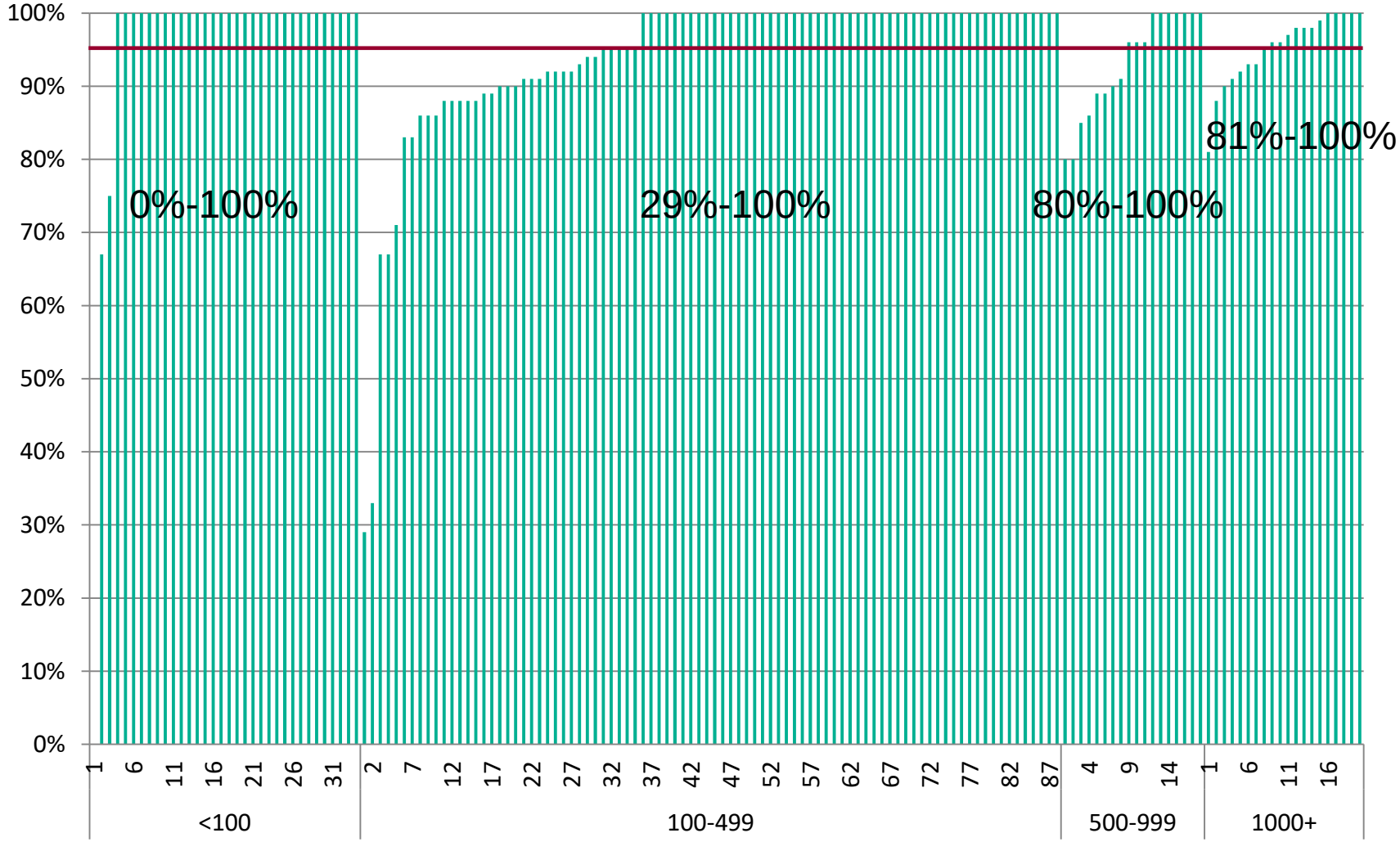


Proportion of adults achieving an undetectable viral load (<200 copies/ml) at least one year after starting ART

Public Health England

Virological success in people newly starting ART by clinic size

National: 95%



Proportion of adults achieving an undetectable viral load (<200 copies/ml) between 6-12 months after starting ART

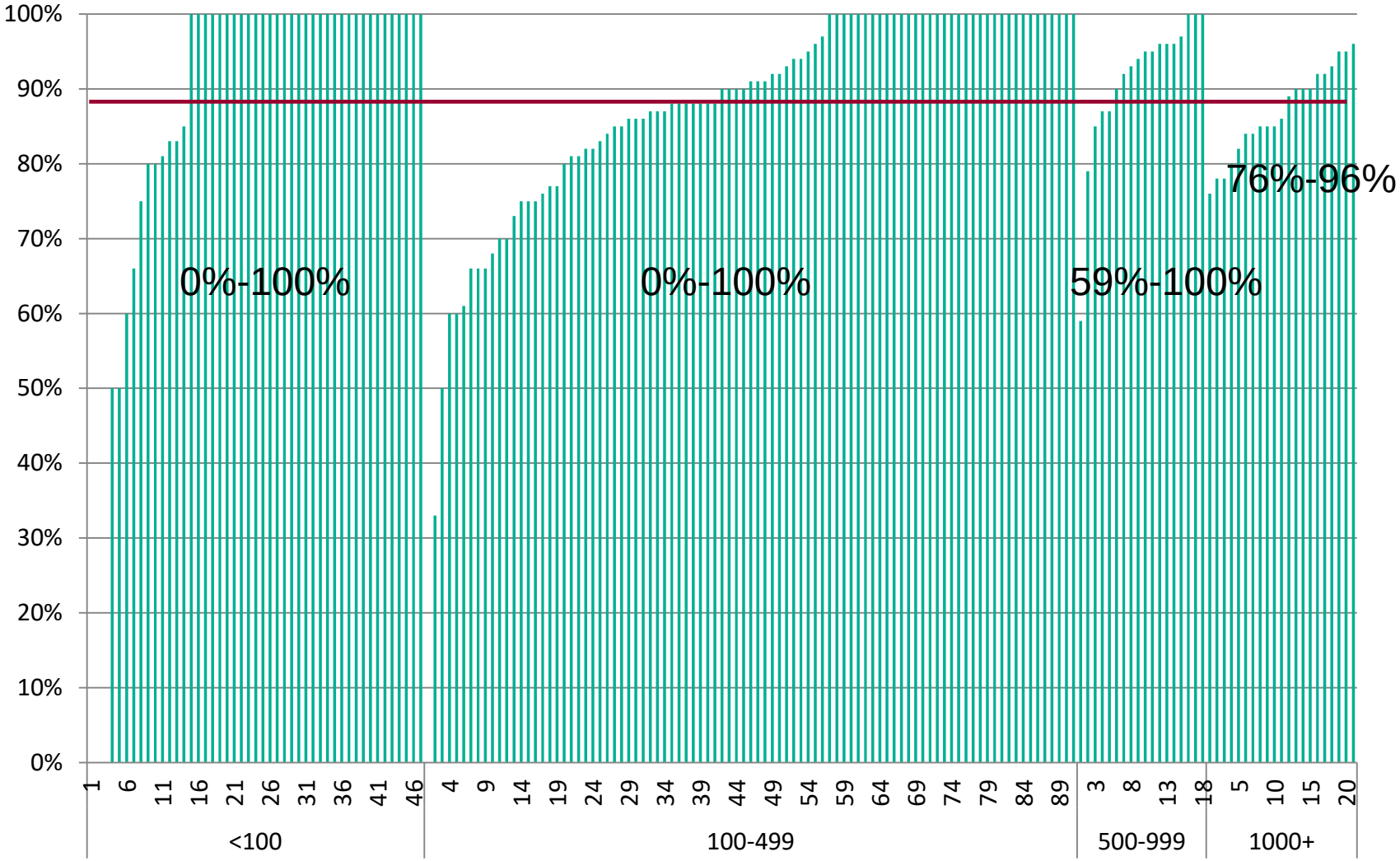
Public Health England

Retention in care

Public Health England

Retention in care (newly diagnosed) by clinic size

National: 88%

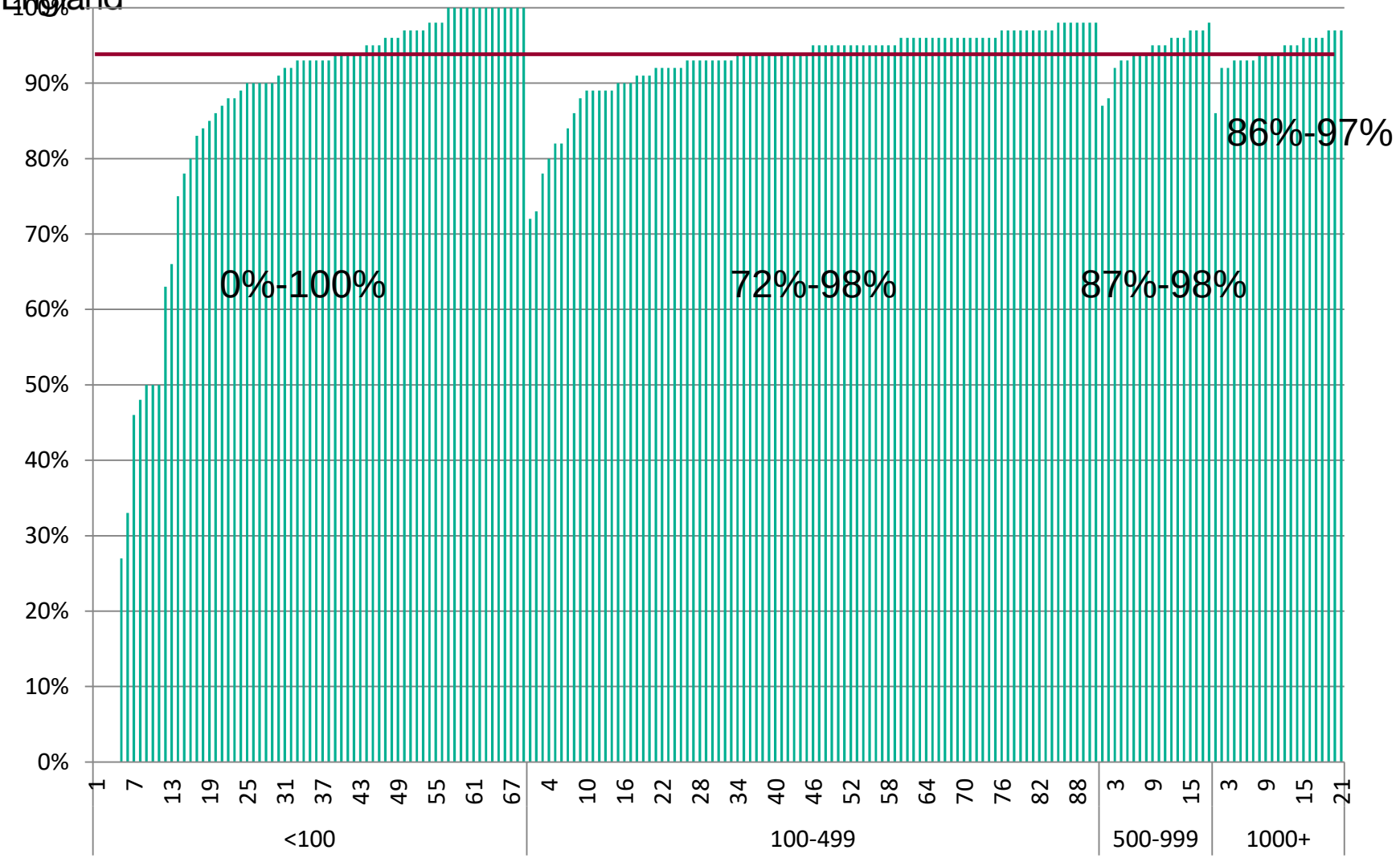


Proportion of newly diagnosed adults retained in care in the following year of diagnosis

Public Health England

Retention in care (all adults) by clinic size

National: 94%



Proportion of adults retained in care in the following year

Public Health England

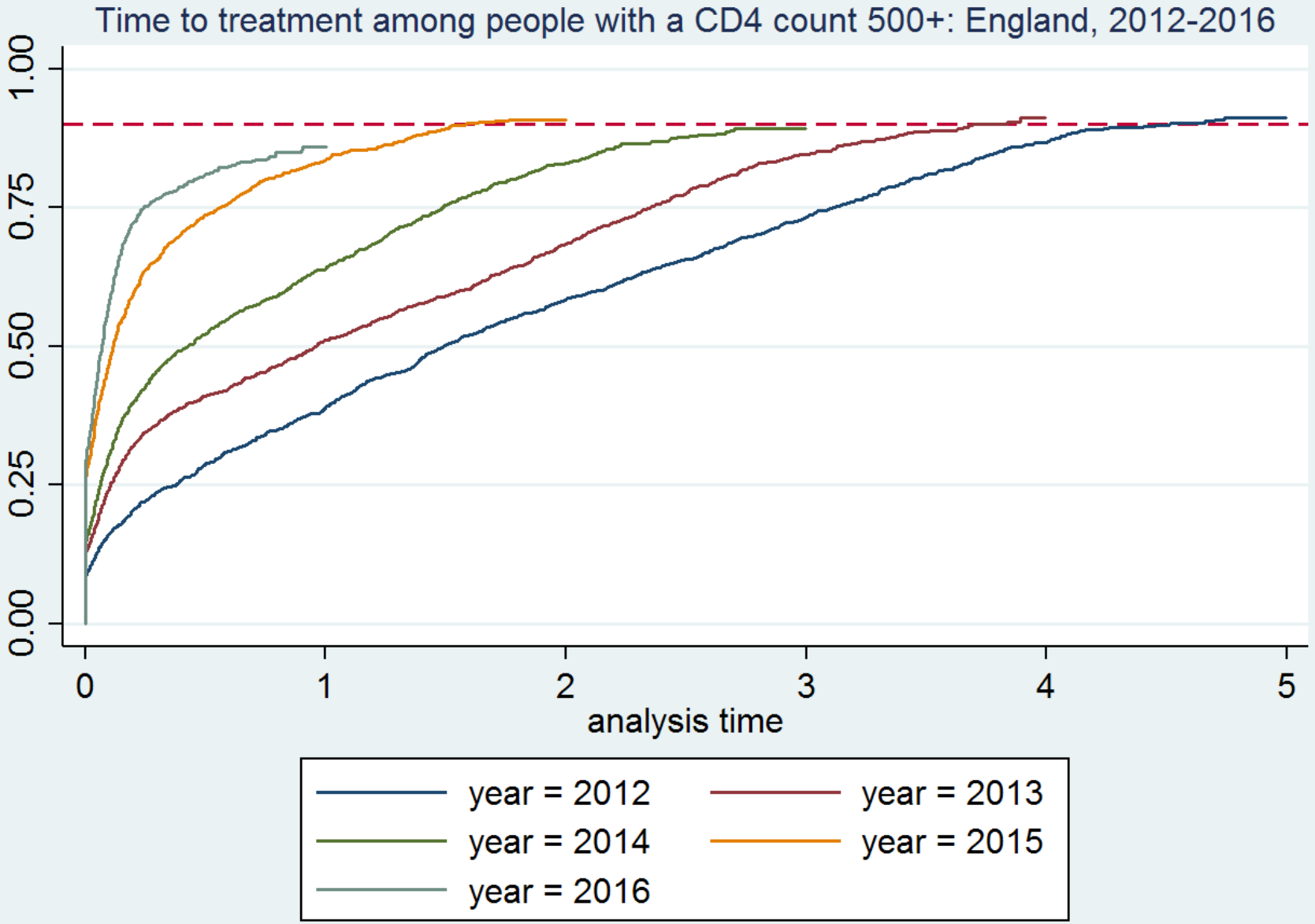
2016 HIV dashboard process and timeline

	Process	Deadline
PHE	2016 HIV data released	**October 2017**
	HIV report published	**November 2017**
	HIV dashboard indicators produced and checked (site level)	**December 2017**
	Dashboard summary and follow-up sent to clinics for review	**January 2018**
	HIV dashboard indicators finalised and sent to NHSE/Methods (trust level)	**February 2018**
NHSE	HIV Dashboard indicators published on Methods SSQD web portal to gatekeeper at each trust for review	**March 2018**
	HIV dashboard indicators finalised and published on SSQD web portal	**April 2018 (provisional)**

Public Health England

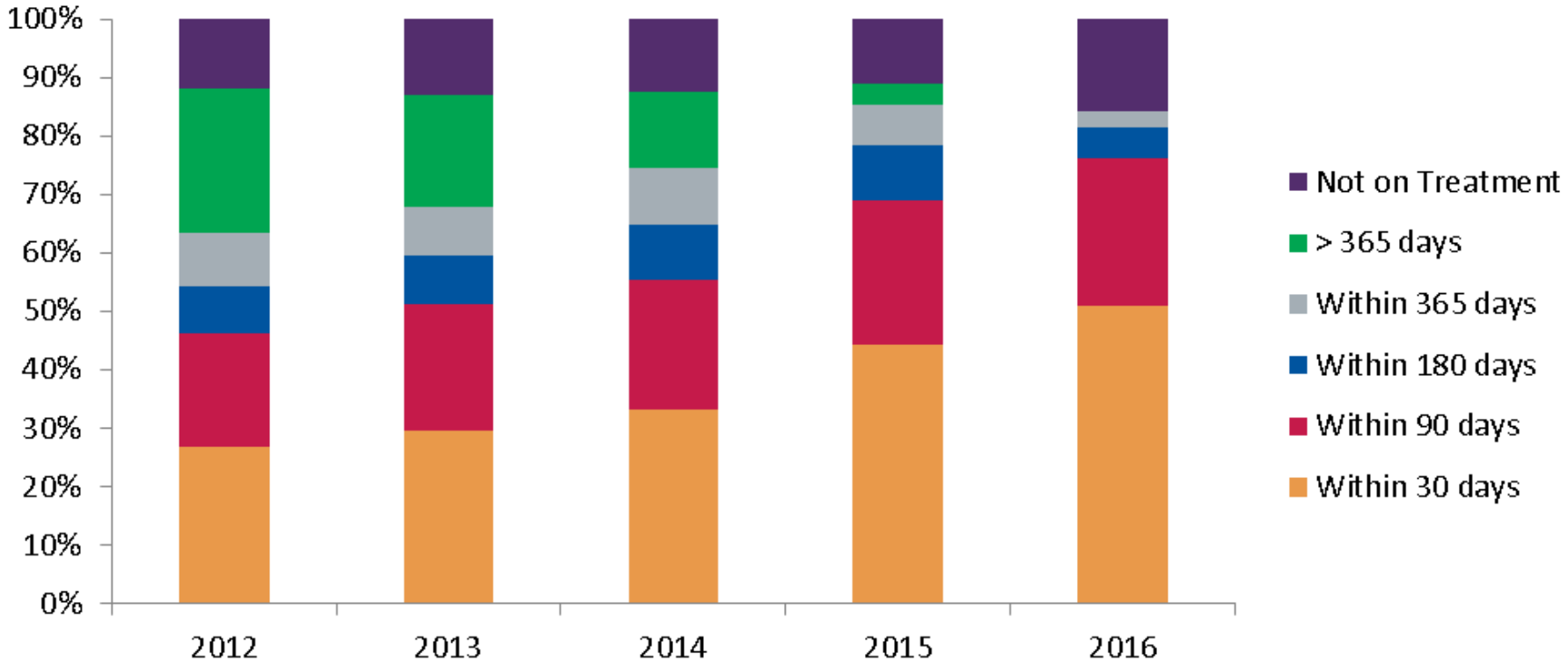
Protecting and improving the nation's health

Time to treatment


Time to treatment among people with a CD4 count 500+: England, 2012-2016
1.00
0.75
0.50
0.25
0.00
0
1
2
3
4
5
analysis time
year = 2012
year = 2013
year = 2014
year = 2015
year = 2016

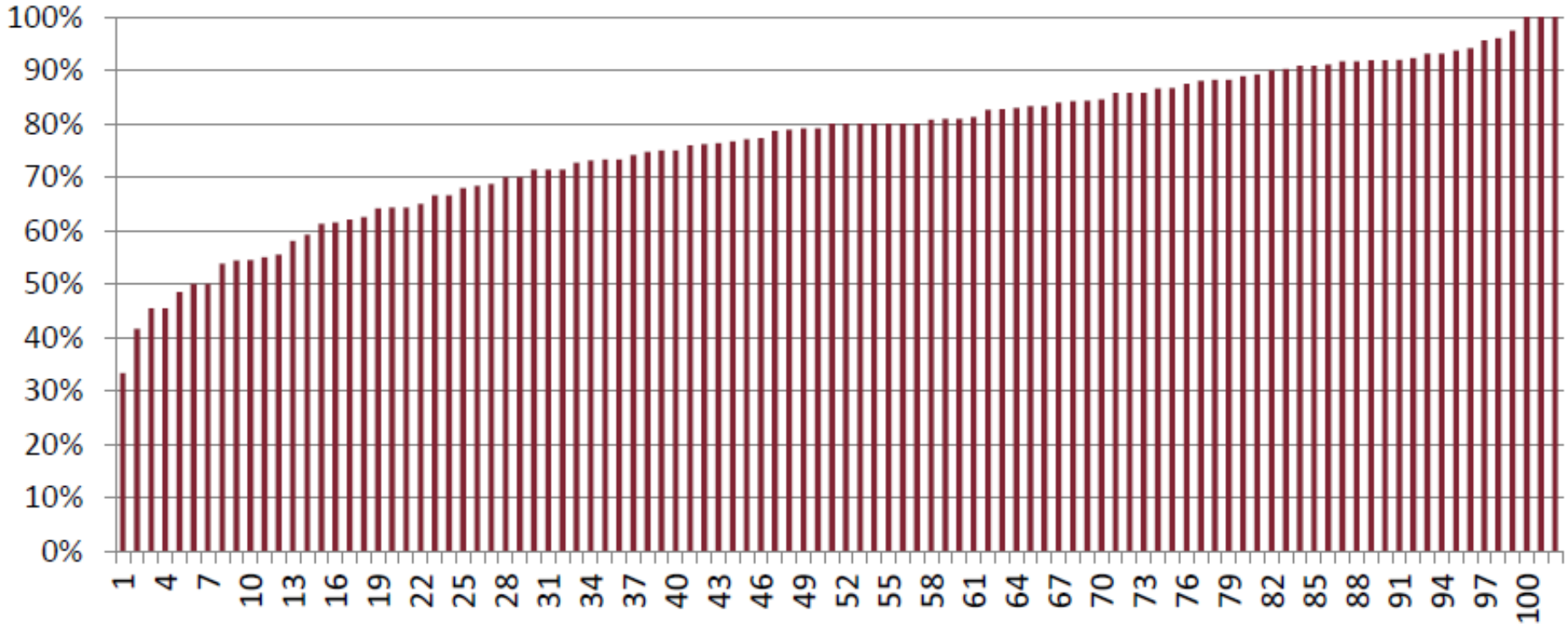
Public Health England

Time to treatment among patients newly diagnosed with HIV: UK, 2011-2016



Public Health England

Proportion of patients newly diagnosed starting ART within 90 days of diagnosis, by anonymised HIV services: UK, 2016



Public Health England

Protecting and improving the nation's health

A new indicator ?

Public Health England

Voting question

Should we have a time to treatment indicator for newly diagnosed people?

- Yes
- No
- Don't know

Public Health England

Time to treatment

What should the indicator be?

- 90% by 48 hours
- 90% by 30 days
- 90% by 90 days
- Other

Public Health England

Acknowledgements

We gratefully acknowledge the continuing collaboration of people living with HIV, as well as clinicians, microbiologists, immunologists, public health practitioners, occupational health doctors, nurses and other colleagues who contribute to the surveillance of HIV and STIs in the UK.