

HIV testing in the ED

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Designing an effective testing pathway

- ▶ Late diagnosis is associated significant morbidity, mortality and cost
- ▶ Individuals with undiagnosed HIV continue to transmit HIV resulting in potentially avoidable new infections
- ▶ Traditional opt-out HIV testing pathways are expensive to deliver and often result in low uptake (30 - 40% only)
- ▶ Difficult to sustain testing behaviour in staff who frequently change

Target population

- ▶ HIV prevalence: Lambeth 15 / 1000, Southwark 12 / 1000
- ▶ ED attendances 200, 000 / year
- ▶ 40, 000 patients attending the ED have a blood test as part of their clinical pathway

- ▶ Test all patients > 16 years who are already having a blood test
- ▶ No upper age limit

We routinely test all patients for HIV

- ▶ Do you have electronic ordering / order-sets?
- ▶ Pre-configure all investigation bloods bundles even single investigations e.g. FBC
- ▶ HIV is pre-selected
- ▶ Starting point for clinicians is that all a patients > 16 will have an HIV test

“We routinely test all patients for HIV. Please read this information leaflet and if you have any questions or do not want the test just let me know”

Patient information leaflet

- ▶ Explains the rationale for universal testing - high local prevalence, highly effective treatment and avoidable illness / new infections
- ▶ Explains what happens if the initial test is positive (reactive)
- ▶ Explains what happens if the test is negative (no new is good news)
- ▶ Emphasises the importance of us having recorded the patients correct contact details (mobile number or e-mail etc.)
- ▶ Challenges commonly held health myths around HIV testing
- ▶ Explains how to get more information and patients can still opt-out if they wish

Minimal impact on front-line ED staff

- ▶ Patients already being bled
- ▶ No formal “pre-test discussion” is required (PIL only)
- ▶ One additional blood bottle is sent to the lab
- ▶ All reactive results are the responsibility the HIV team (not ED staff)
- ▶ Occasionally patients phone for their (negative) results but this has not been a significant issue
- ▶ False positives are rare but do sometimes happen (usually resulting from a mislabelled specimen)

Informing patients of the routine testing practice

- ▶ Press launch - BBC, Sky and local radio / newspapers
- ▶ Large adult sized poster greets patients as they enter the ED!
- ▶ Large notices throughout the ED and in all the consultation cubicles
- ▶ 10 common languages
- ▶ The staff wear badges “We routinely test for HIV”
- ▶ Comprehensive patient information leaflet (PIL) in English
- ▶ Non-English speaking patients are consented directly via an interpreter (language line)

Appropriate testing behaviour

- ▶ ED clinical champions (essential)
- ▶ HIV testing pathway taught at every new staff induction
- ▶ Daily handover 0800 and 2000 - highlight best testing practice
- ▶ Clinician level feedback on testing practice (weekly)
- ▶ New diagnoses reported back to ED and staff
- ▶ Testing rates and total number new diagnoses weekly
- ▶ Steering group - informatics, ED and HIV clinicians and health advisor

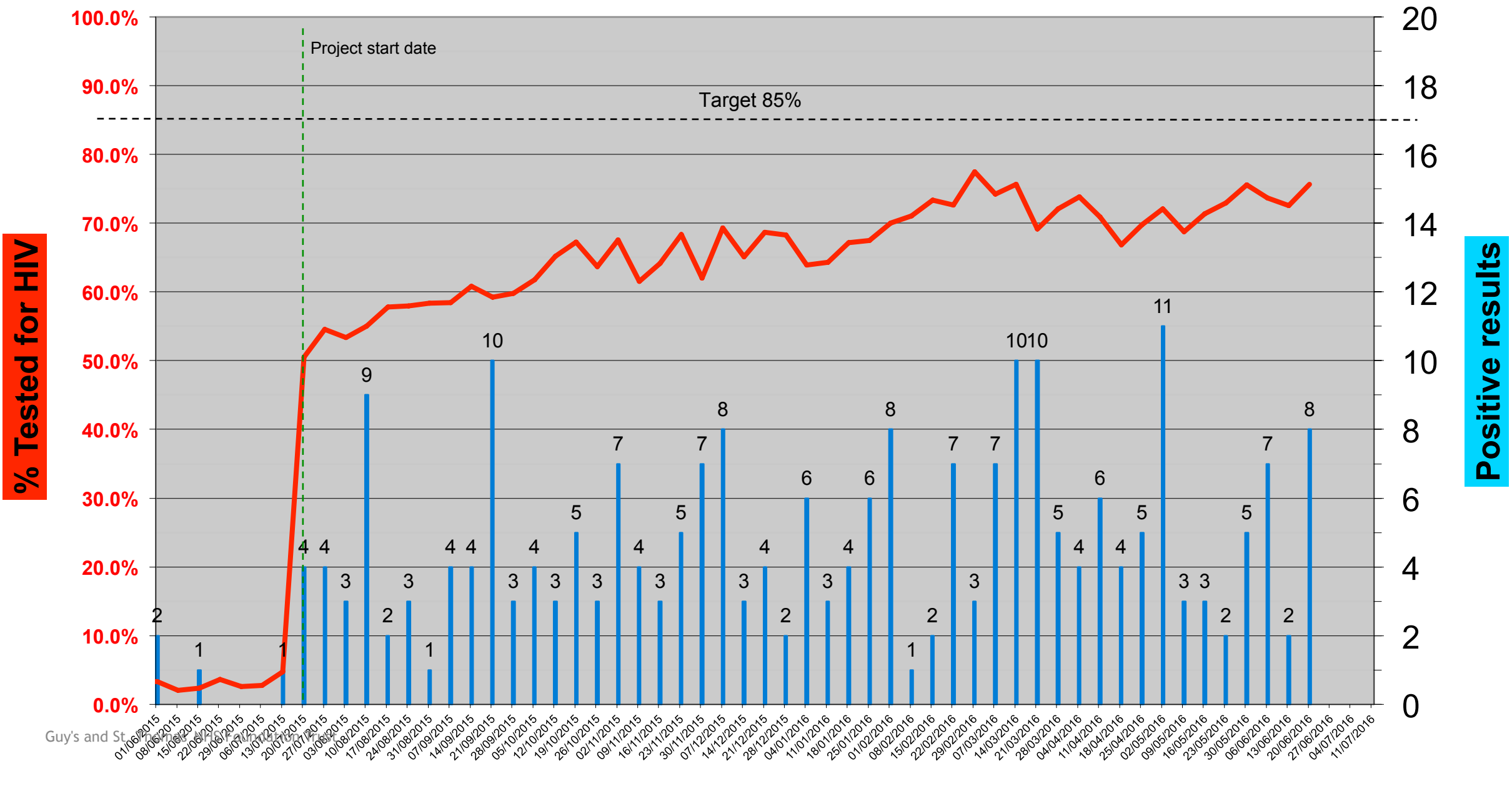
HIV new diagnosis team

- ▶ Designated clinicians and health advisor (group e-mail)
- ▶ E-mail alert as soon as a new result is reactive (all HIV tests going through GSTT labs)
- ▶ Patient contacted that day by phone (HA)
- ▶ Told the result is reactive (this has proved acceptable)
- ▶ Seen in the HIV service directly for confirmatory testing and new patient bloods (faster access to clinical team)
- ▶ Can be seen the same day by HA and clinician as required

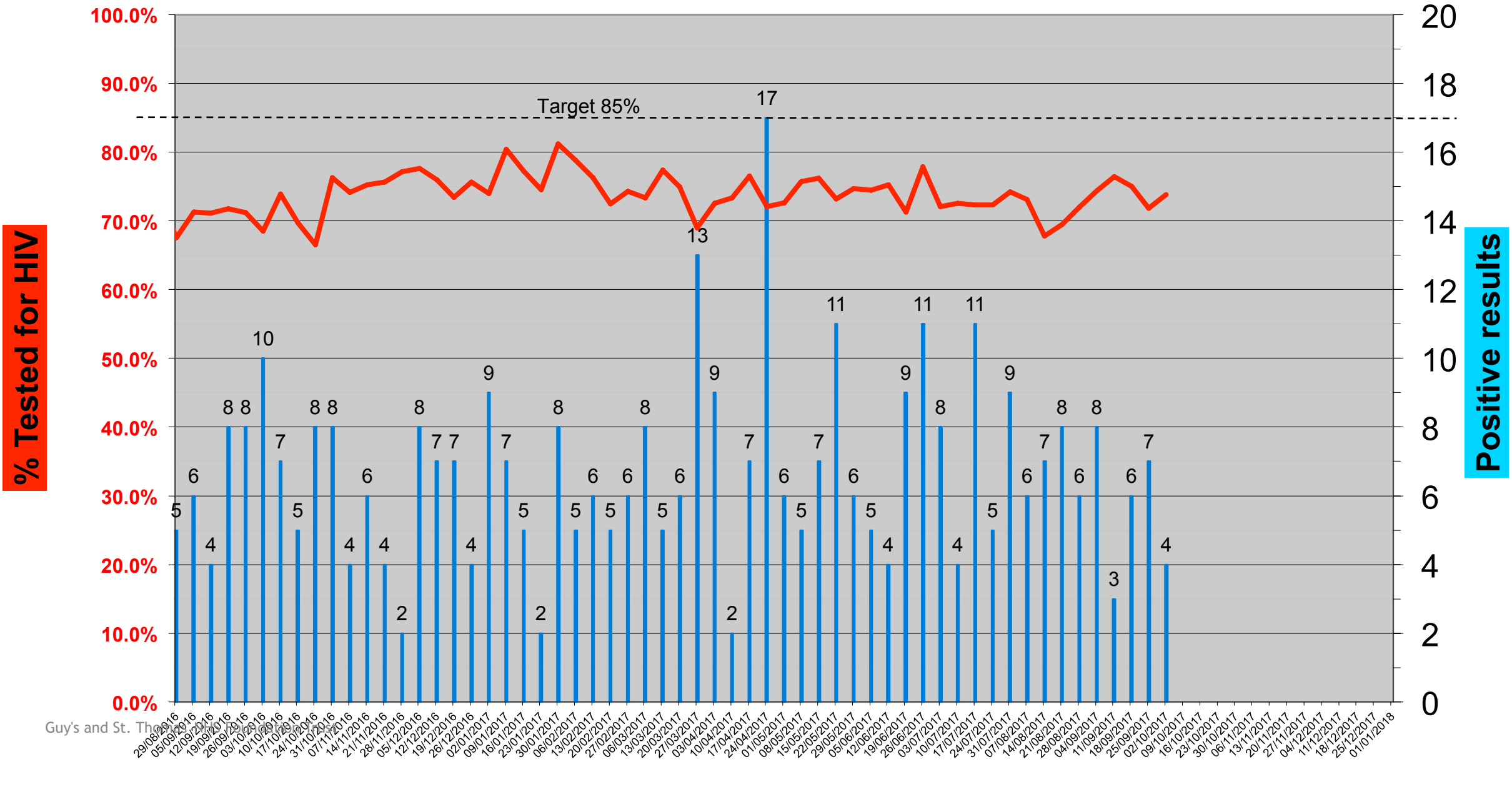
Funding

- ▶ Negotiate with your lab to reduce the cost of an Ab / Ag HIV test (£4.26 - cost and volume model)
- ▶ Initially funded for 12 months by the Trust directly (300K)
- ▶ Extended to 3 years funding after initial 6 month results were presented back to the executive (£1.2M)
- ▶ Now funded by and an HIV testing tariff (Lambeth and Southwark CCG + PHE)
- ▶ Elton John Foundation - social bond (£2M) 2018/19

% A&E attendances with a blood test also tested for HIV



% A&E attendances with a blood test also tested for HIV



Testing data

	HIV tests	Testing uptake %
Jul-Dec 2015	12694/20721	61
2016	29033/40412	72
Jan-Jun 2017	14106/18813	75

Testing uptake sustained > 70 %

Positive results

	HIV positive	%
Jul-Dec 2015	105 / 12649	0.8
2016	294 / 29033	1.0
Jan-Jun 2017	184 / 14106	1.3

New diagnosis n = 122 / 583

	New diagnoses	%
Jul-Dec 2015	35 / 105	33
2016	62 / 294	21
Jan-Jun 2017	25 / 184	14

Male n= 99 / 122 (81 %)

Demographic		%	Median age
MSM	58 / 91	64	34 (18-61)
Het	33 / 91	36	40.5 (22-65)
BA	20 / 91	22	40 (25-65)
Caucasian	62 / 91	68	36 (22-61)

Missing data n = 8

Female

n = 23 / 122 (19%)

Ethnicity		%	Median age
BA	14 / 22	64	46.5 (25-60)
Caucasian	7 / 22	32	48 (28-62)

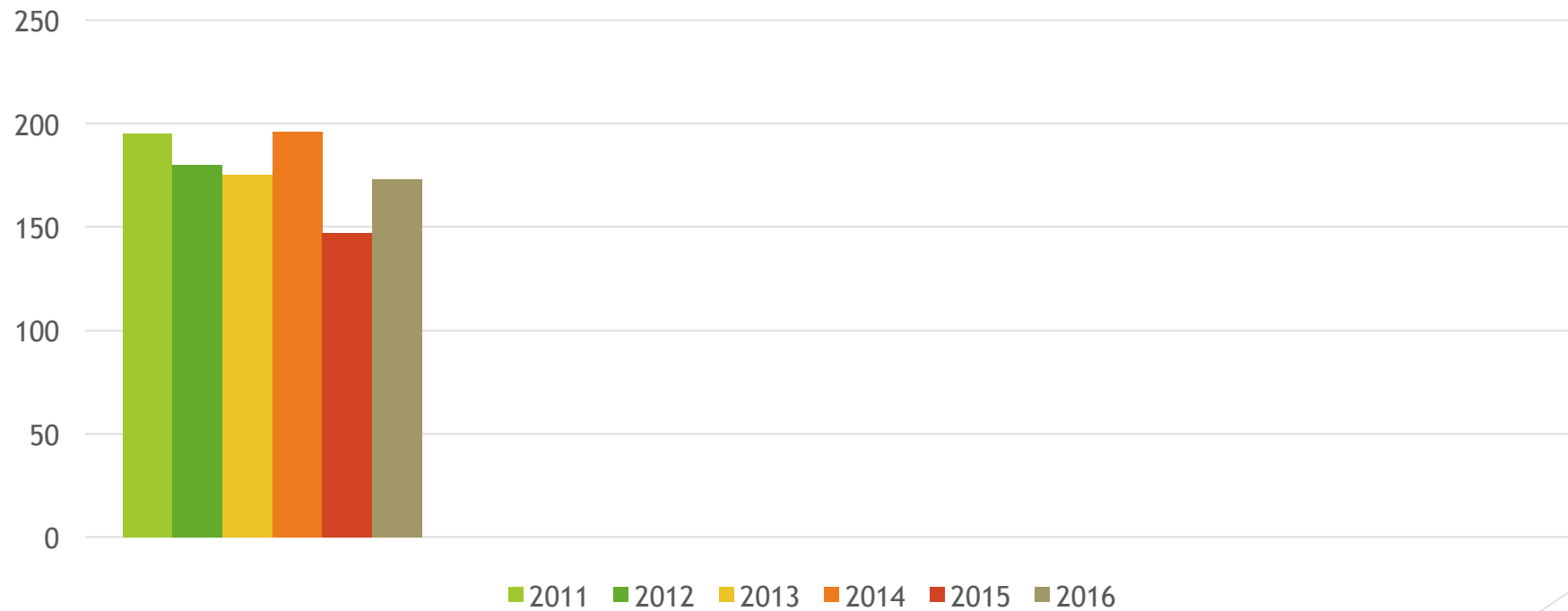
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Late presenters and primary infection

	Median CD4	CD4 < 350	Primary infection	
Men	402 (5-1231)	44 %	24/99	24 %
Women	292 (11-697)	59 %	None	

In-patient activity

HIV in-patient episodes 2013-16



Conclusions

- ▶ High rates testing sustained over 2 years
- ▶ Reducing the impact of the testing pathway of front line staff is important to avoid “testing fatigue”
- ▶ ED patients - important and distinct population to test
- ▶ High rates late diagnosis and primary infection
- ▶ The approach could be scalable to other settings where patients are already having a blood test and the local HIV prevalence $> 2 / 1000$

- ▶ Cost effectiveness analysis underway with PHE but significant cost avoidance likely given the high rates of primary infection and late diagnoses found in this population.