



Public Health
England

Overcoming barriers to HIV testing

An agenda to expand HIV testing

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IMPRESS Conference: Tackling HIV Stereotypes
Canterbury
25th March 2015



Outline

- International HIV Policy
- HIV in the UK
 - Epidemiology
 - HIV testing policy
- HIV testing in:
 - General medical services
 - Community settings

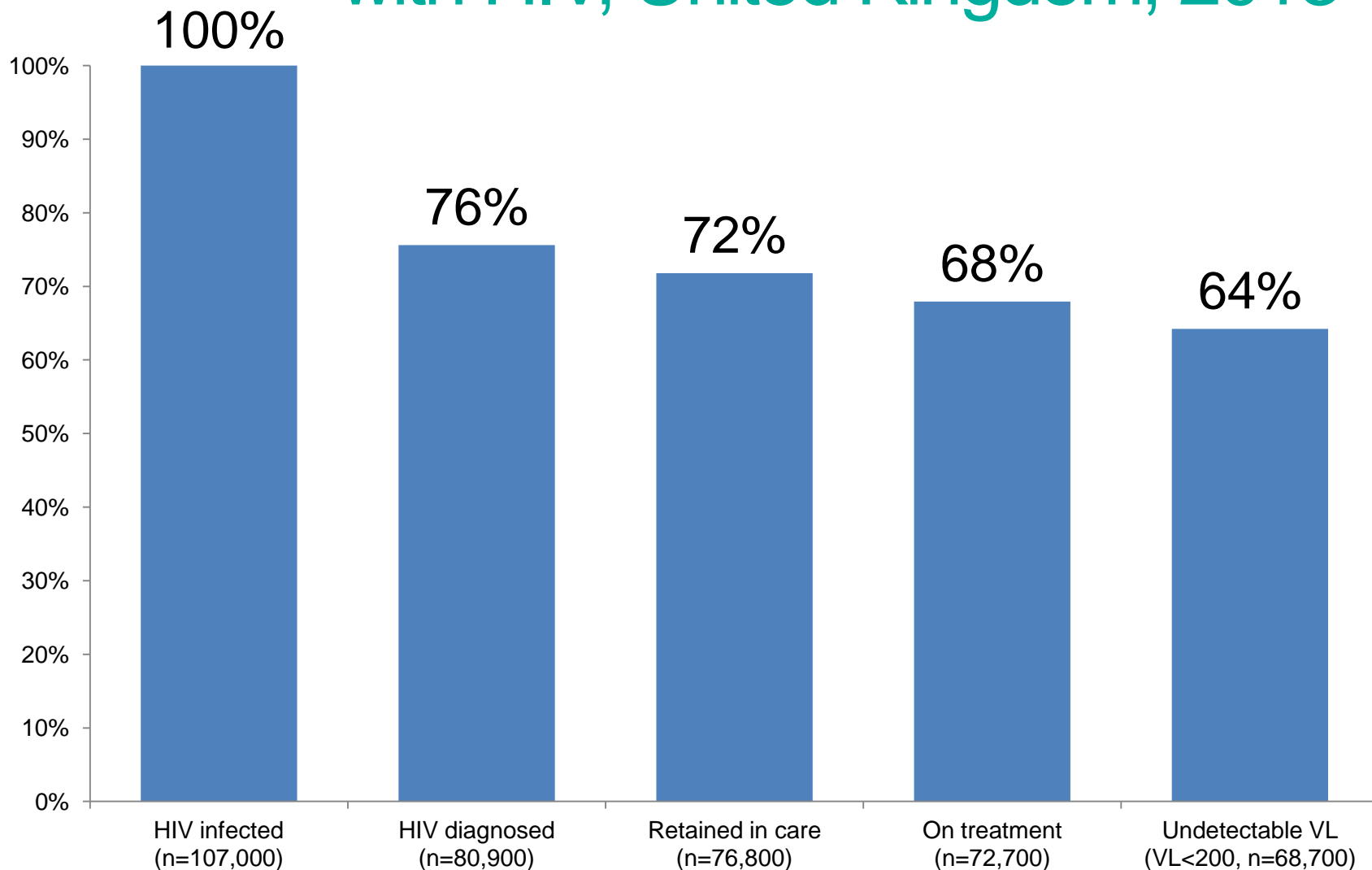


UNAIDS targets by 2020

- 90% PLHIV know their status
- 90% of diagnosed on sustainable ART
- 90% of treated have a durable viral suppression
- ‘This would result in the end of AIDS and make HIV transmission rare by 2030’



Continuum of Care People living with HIV, United Kingdom, 2013



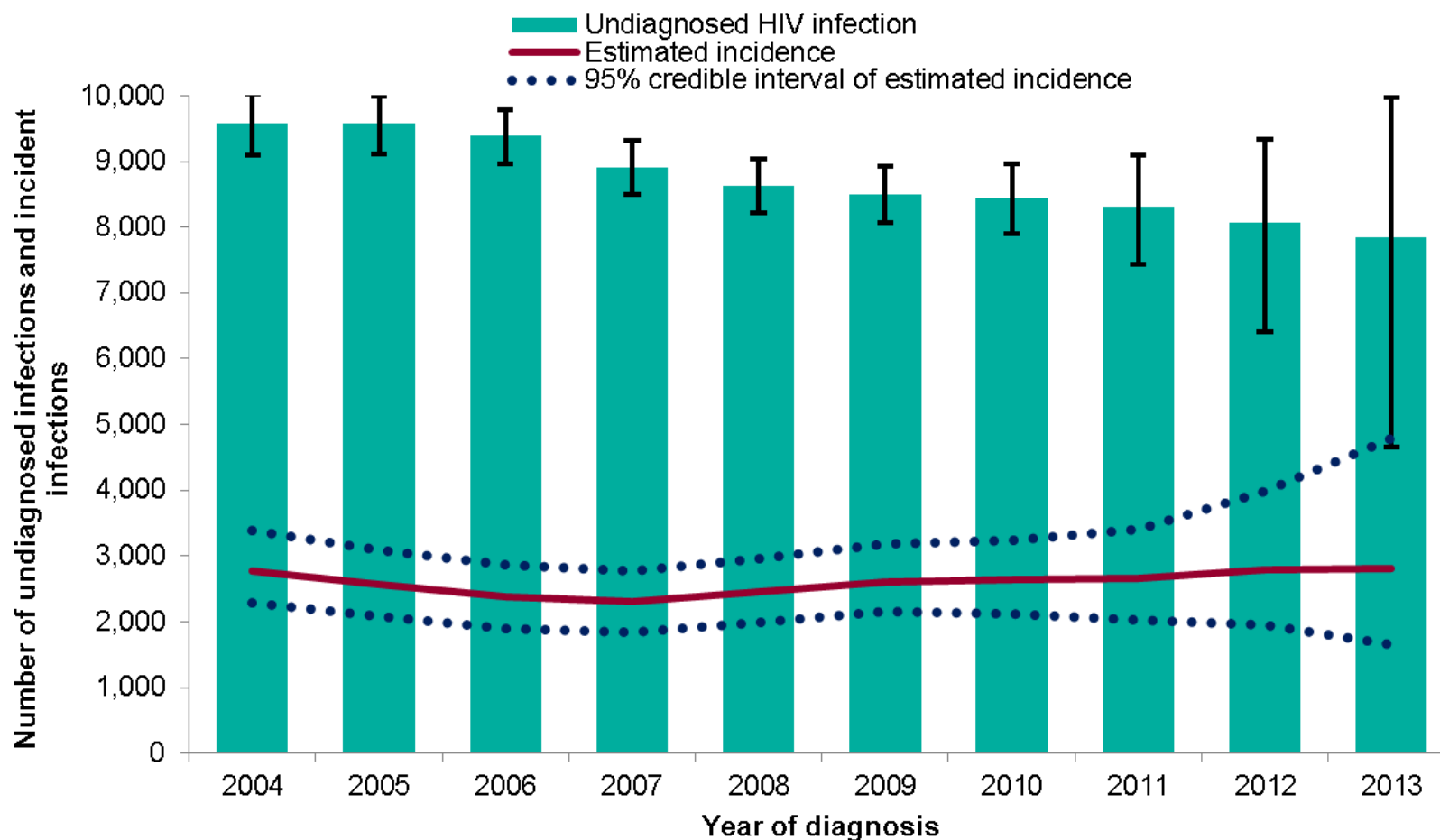


International cascades of HIV care

	Living with HIV	Diagnosed	Linked to care	In care	On ART	<50
Australia	27,674	86%	78%	76%	66%	62%
Denmark	6,500	85%	81%	75%	62%	59%
UK	94,900	77%	n/a	72%	64%	58%
Netherlands	25,000	n/a	73%	68%	59%	53%
France	149,000	81%	n/a	74%		52%
Canada (BC)	72,000	71%	67%	57%	51%	35%
USA	1,148,000	82%	66%	37%	33%	25%

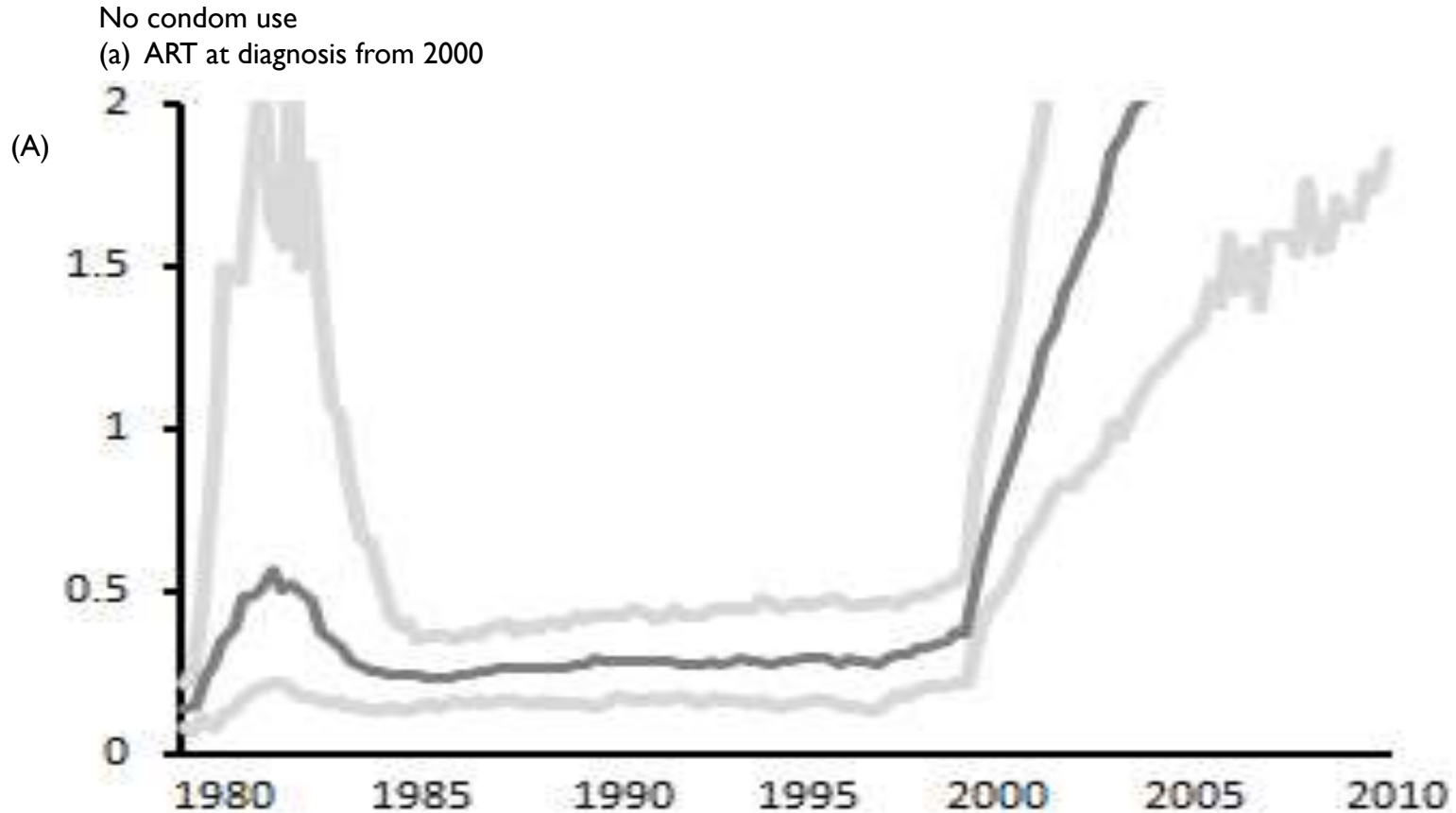


Back-calculation estimate of HIV incidence and prevalence of undiagnosed infection among MSM: UK, 2004-2013



Counter – factual scenario

No condom use *Phillips et al PLOS One 2013*



Cessation of all condoms in 2000 would have resulted in a 400% increase in incidence

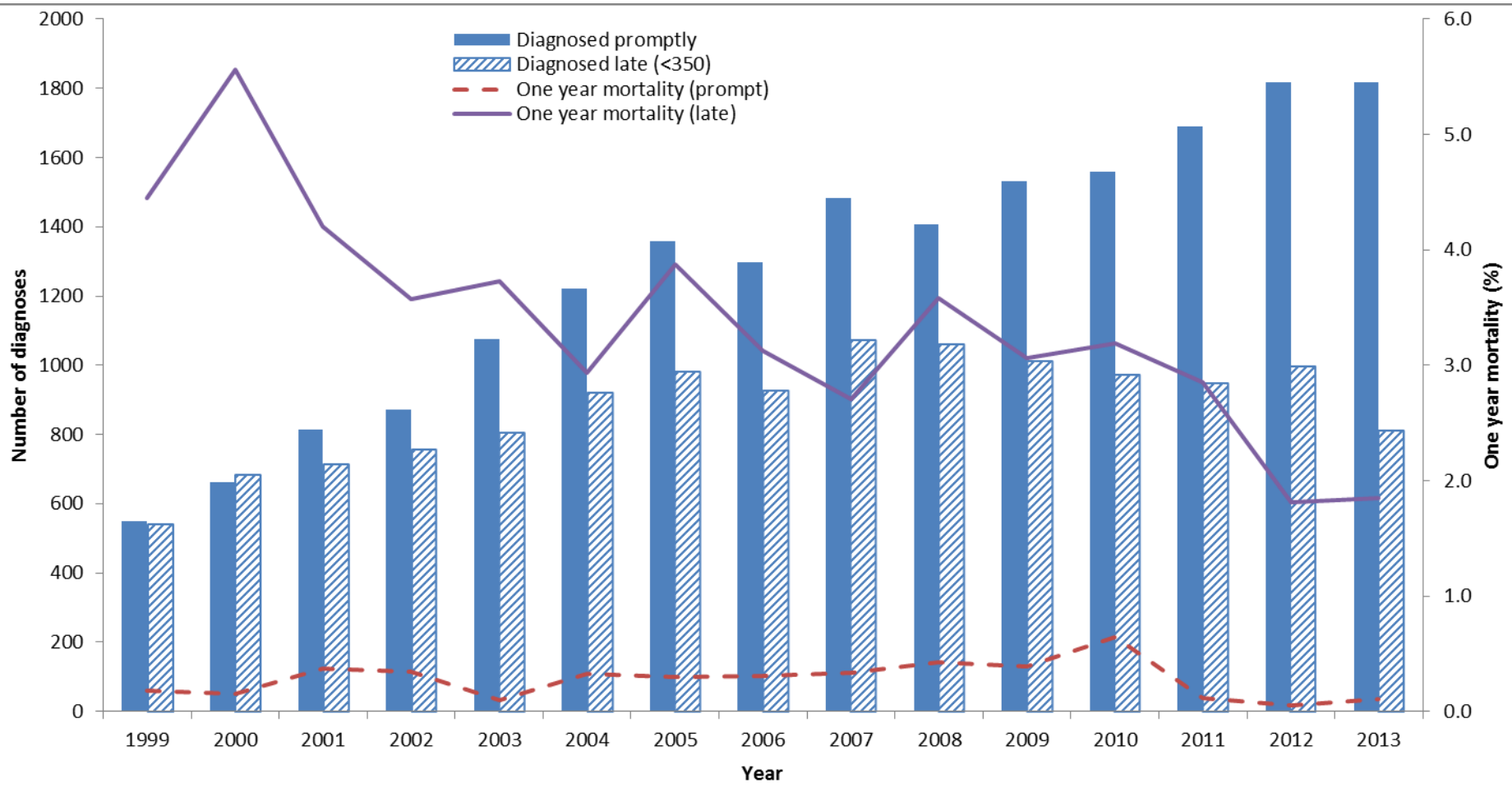


Why focus on HIV testing?

- Improved individual prognosis:
 - Late diagnosis associated with higher mortality and morbidity
- Public health impact:
 - Adoption of safer behaviour subsequent to diagnosis
 - Reduced transmission from individuals on treatment
- Cost:
 - x3 more expensive to treat individuals diagnosed $CD4 < 75$ than at $CD4 > 500$
- Missed opportunity:
 - 25% of new HIV diagnoses could have been diagnosed earlier



MSM with diagnosed HIV, United Kingdom



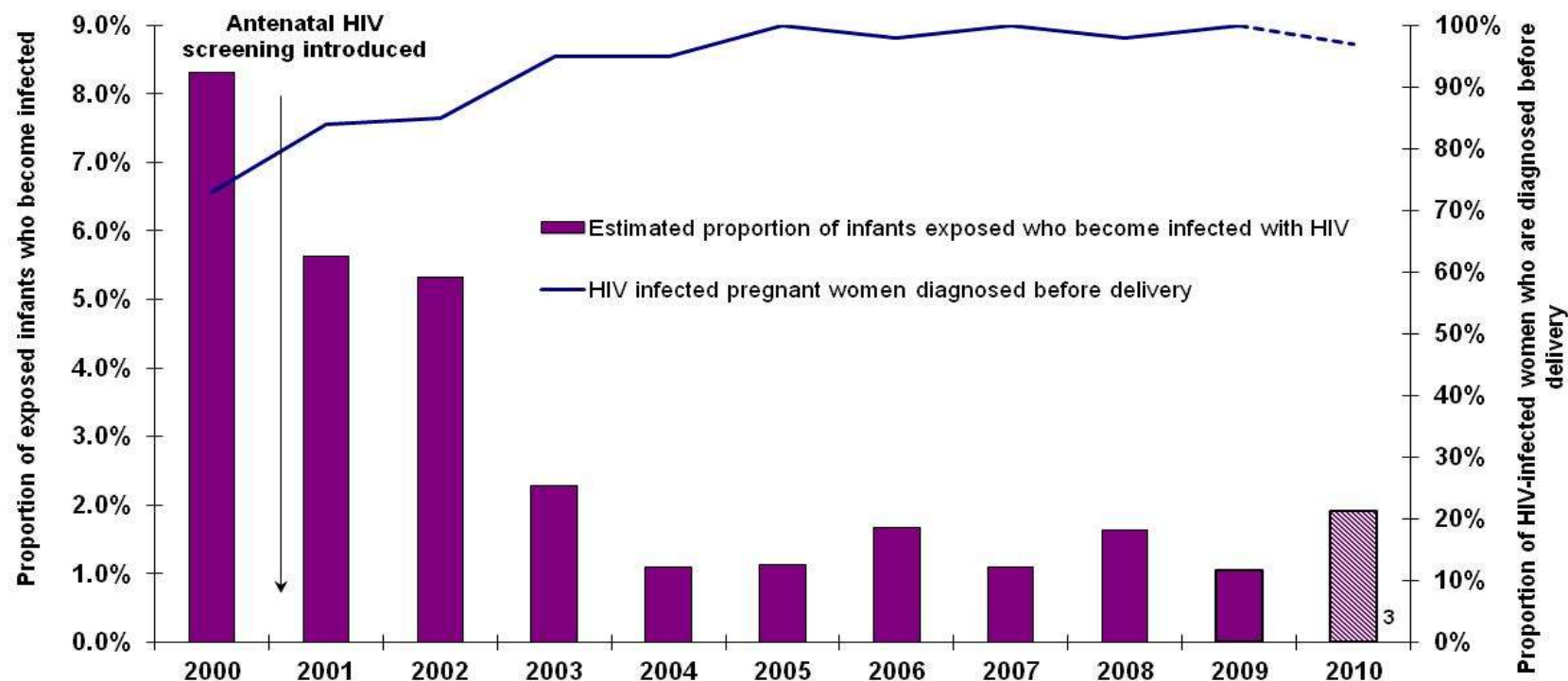


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Antenatal screening for HIV

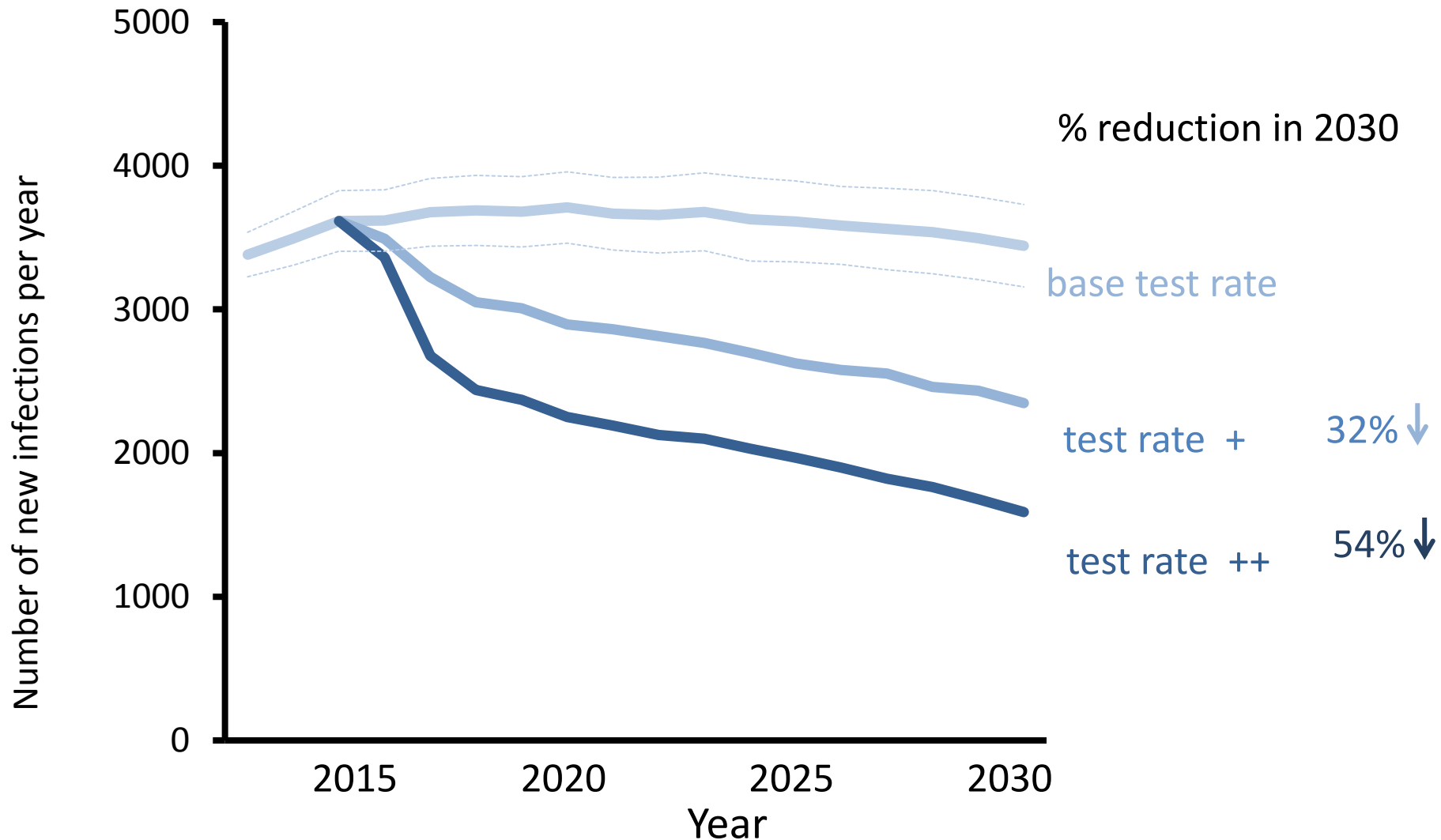


1 Includes previously diagnosed and those diagnosed through antenatal testing

2 Assumes vertical transmission rate of 26.5% in undiagnosed women and 2.2%, 1.6% and 1.1% in diagnosed women in 1999, 2000-2002 and 2003-2008 respectively.

3 These data contain reports received by the end of June 2012, data for recent years is subject to reporting delay.

Modelled impact on HIV incidence of increased testing among MSM





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Cost and cost-effectiveness

Lower costs associated with early versus late diagnosis (Krentz et al)

Cost-effectiveness of increasing HIV testing

- France: one time testing of general population¹
- USA: cost-effectiveness threshold of positivity 1/1,000²

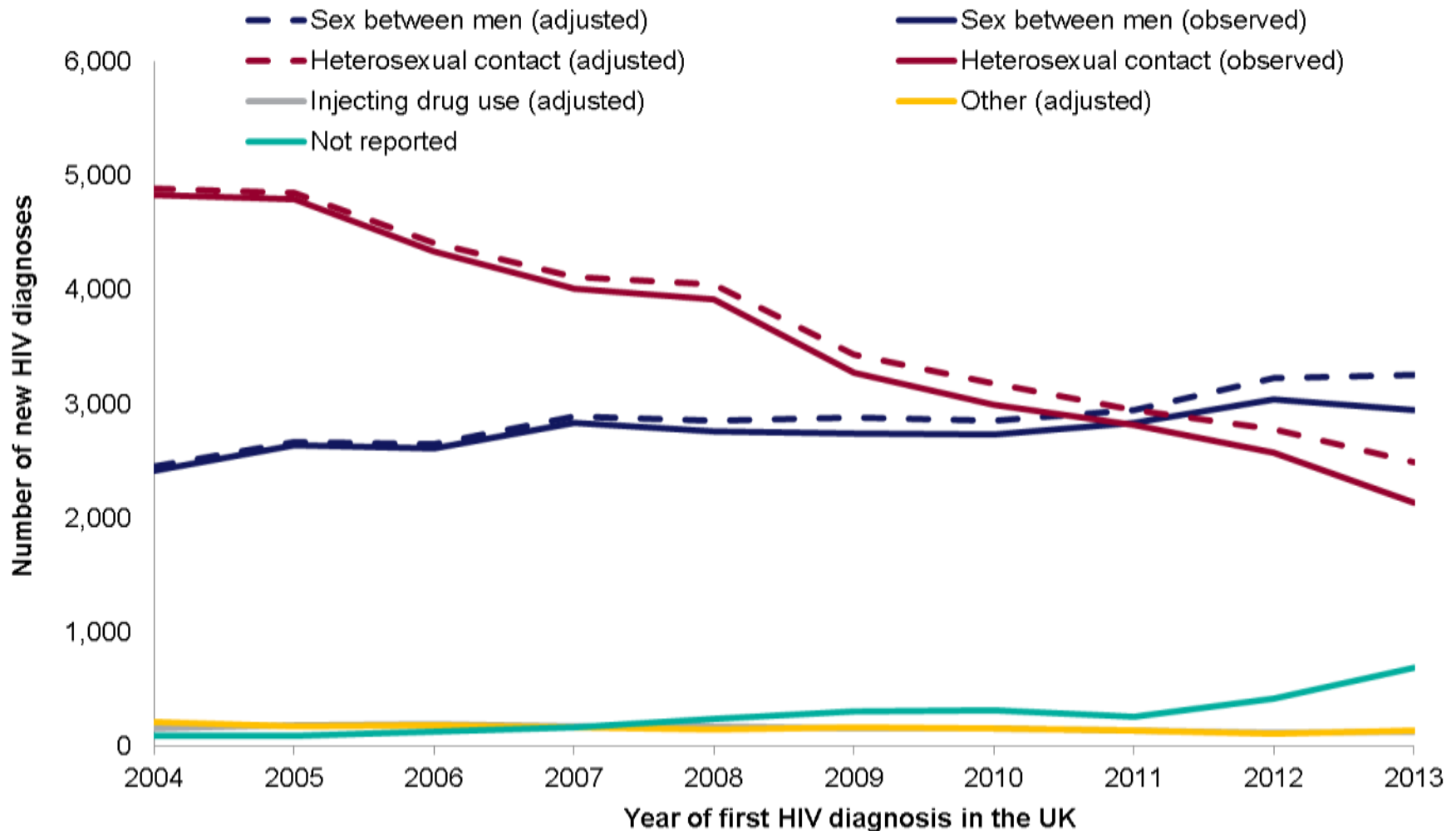


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New HIV diagnoses by exposure group: United Kingdom, 2004 - 2013





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Exposure category		Total HIV infection (credible interval)	% Undiagnosed (credible interval)	HIV prevalence per 1,000 population (credible interval)
Men who have sex with men		43,500 (40,200, 48,200)	16% (10, 25%)	59 (52, 68)
People who inject drugs		2,400 (2,100, 2,600)	10% (6, 16%)	6.7 (5.5, 8.3)
Heterosexuals		59,500 (54,700, 66,00)	31% (25, 38%)	1.6 (1.5, 1.8)
	Men	24,000 (21,600, 27,400)	34% (27, 42%)	1.3 (1.2, 1.5)
	<i>Black African ethnicity</i>	13,600 (11,800, 16,700)	38% (29, 50%)	41 (35, 49)
	<i>Non black-African ethnicity</i>	10,200 (9,100, 12,300)	27% (18, 39%)	0.6 (0.5, 0.7)
	Women	35,500 (32,700, 28,900)	29% (23, 36%)	1.9 (1.7, 2.0)
	<i>Black African ethnicity</i>	25,100 (22,400, 28,900)	31% (23, 40%)	71 (63, 81)
	<i>Non black-African ethnicity</i>	10,300 (9,400, 11,700)	23% (16, 32%)	0.6 (0.5, 0.6)
Total		107,800 (101,600, 115,800)	24% (20, 29%)	3.7 (3.5, 4.0)



HIV Testing in the UK

General Population¹

- 9% of males and 5% of females had VCT in <5 years

Other health services²

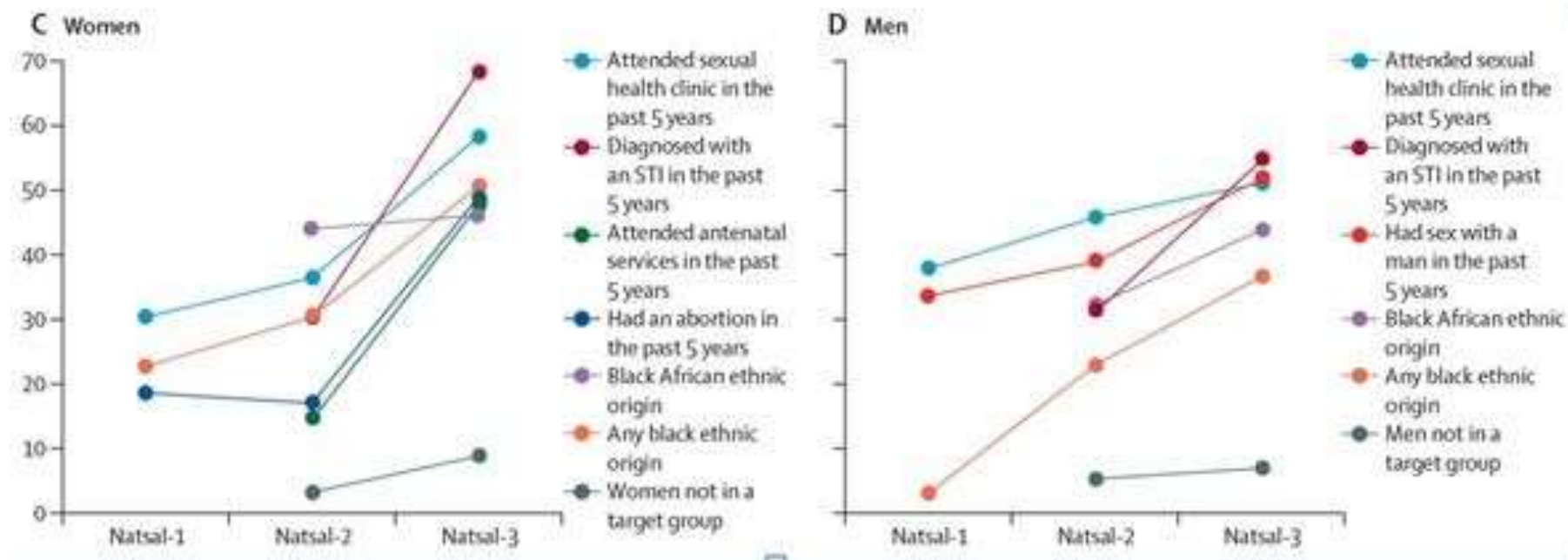
- Most (>75%) HIV tests performed by STI or antenatal services

Most at-risk populations

- 58% of MSM reported an HIV test in the last year
- 40-50% of Black Africans had an HIV test

HIV testing

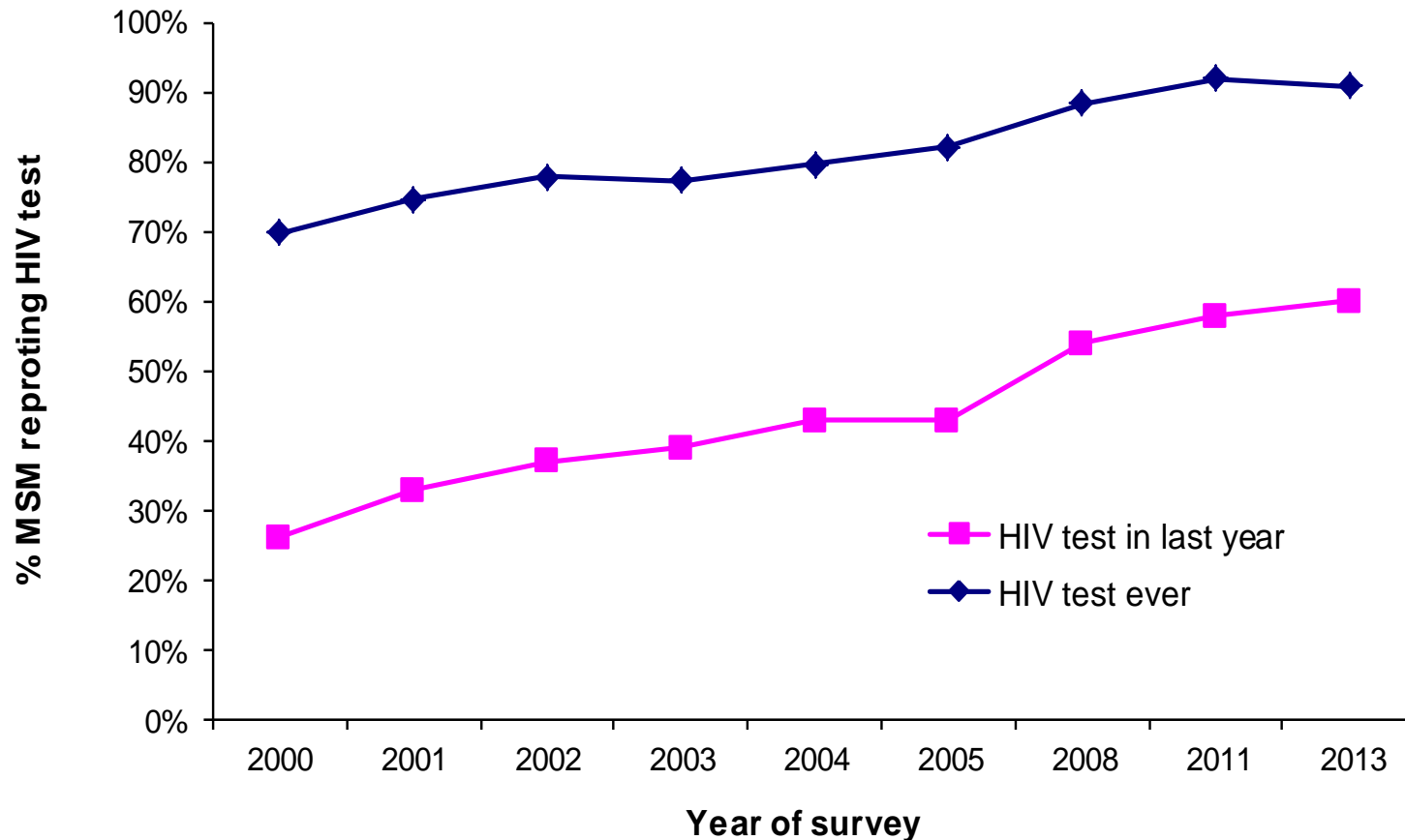
- Increases in reported HIV testing in targeted groups





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Proportion MSM in gay venues reporting an HIV test, London: 2000-2013



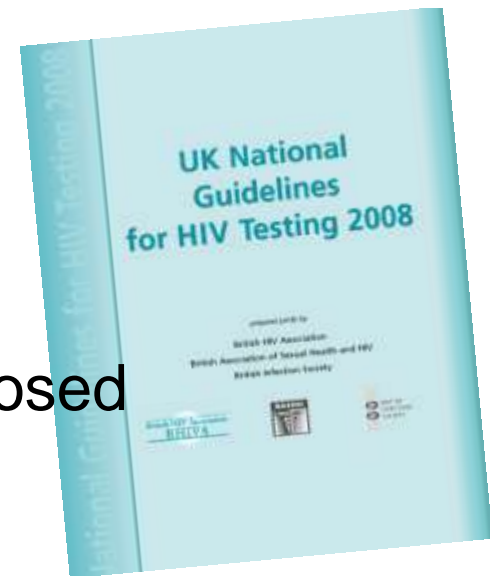
Gay Mens' Sexual Health Survey:
University College London/Public Health England



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UK National Guidelines for HIV Testing

- Services with high background prevalence (e.g. STI clinics, Antenatal, Termination of Pregnancy etc)
- Patients at higher risk (e.g. MSM, PWID):
- Patients with clinical indicator diseases
- Expanded HIV testing in areas of high diagnosed HIV prevalence ($>2/1,000$)
 - Registrants in primary care
 - General medical admissions
- HIV testing in the community





Pilot projects of routine offer of an HIV test in general medical services

- Pilot projects to evaluate models of expanded HIV testing in general medical services in 2010
- 10,688 HIV tests performed with 41 new HIV diagnoses (3.8/1,000).
 - 4.8/1,000 in primary care
 - 3.1/1,000 in hospitals
- Pilot projects demonstrated:
 - high levels of acceptability among patients
 - feasibility of routine testing in different medical services
 - 6 of 8 projects exceeded cost-effective threshold (1/1,000)



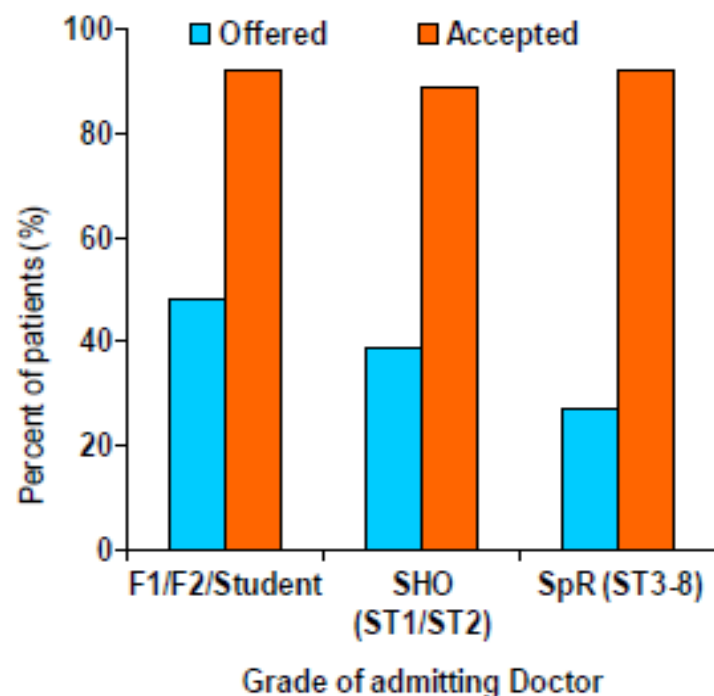
Acceptability among patients in primary care

Preliminary Results

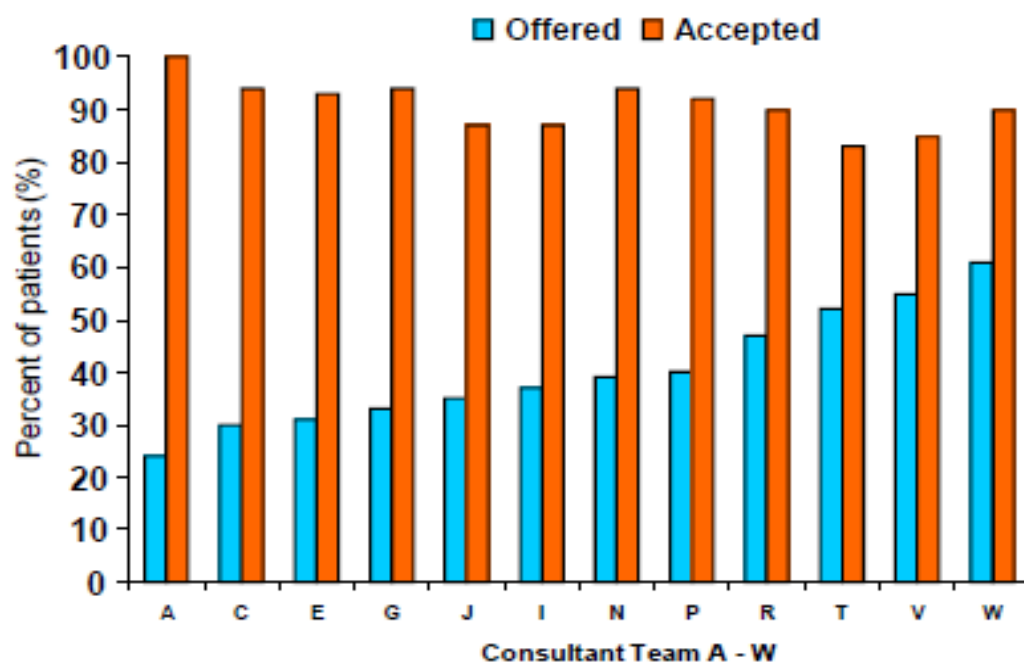
Questionnaire items	% agreeing		
	Accepted	Declined	Total
It was a good idea to offer me an HIV test today during my new patient health check*	97.8	93.5	96.7
I think I may be at risk of HIV*	6.5	2.5	5.5
I had enough time to decide whether or not to have an HIV test today*	85.3	71.1	81.7
I would like to receive my HIV test result straight away*	93.9	51.1	84.1
I am happy to have an HIV test at my doctor's surgery*	98.6	73.3	92.3
I would prefer to have an HIV test at a specialist sexual health clinic*	8.6	10.0	9.0
Overall I would rate my experience of being offered an HIV test as helpful and useful*	94.1	86.2	92.1

* Indicates significant difference by chi-squared test ($p < 0.05$)

Offer and Acceptance by Admitting Doctor



Offer rate differed significantly by grade $p < 0.001$



Offer rate differed significantly by Consultant $p < 0.001$



Pilots routine HIV testing: Cost per HIV diagnosed, UK, 2011

Pilot Site	Service	Number HIV diagnosed	Number HIV tests	Cost per HIV diagnosed
Brighton	10 GPs	2	1,473	£4,673
London	18 GPs	19	2,713	£787
London	1 GP	0	1,002	-
London	ACU	4	384	£299
Brighton	ACU	2	1,413	£3,780
Leicester	ACU	10	984	£818
London	ED	4	2,121	£5,200
London	OPD	0	598	-

- Costs per HIV detected compare well with other studies:
 - USA¹: varied from \$1,980 (UCC) to \$9,724 (ED)

¹ Mehta *et al* *Pub Health Rep* 2008;



Twelve Months of Routine HIV Screening in 6 Emergency Departments in the Paris Area: Results from the ANRS URDEP Study

Enrique Casalino^{1,2}, Bruno Bernot³, Olivier Bouchaud^{4,5}, Chakib Alloui⁶, Christophe Choquet^{1,2}, Elisabeth Bouvet^{2,7}, Florence Damond^{8,9}, Sandra Firmin^{10,11}, Aurore Delobelle^{10,11}, Beatrice Ename Nkoumazok^{10,11}, Guillaume Der Sahakian^{12,13}, Jean-Paul Viard^{14,15}, Olivier Zak Dit Zbar¹⁶, Elisabeth Aslangul^{17,18}, Anne Krivine¹⁹, Julie Zundel²⁰, Jade Ghosn^{15,21}, Patrice Nordmann^{22,23,24}, Yann-Erick Claessens^{25,26}, Tassadit Tahi²⁷, Bruno Riou^{28,29}, Agnès Gautheret-Dejean³⁰, Christine Katlama^{10,11,31}, Pierre Hausfater^{28,29}, Françoise Brun-Vézinet^{8,9}, Dominique Costagliola^{10,11*}

1 AP-HP, Groupe Hospitalier Universitaire Paris Nord-Val de Seine, Service d'accueil des Urgences, Paris, France, **2** Université Denis-Diderot Paris 7, Paris, France, **3** AP-HP,

- Despite low coverage, reported high
 - Acceptance/uptake (69%)
 - Positivity (0.6%)



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Innovations in HIV testing

DEAN STREET *at home*

Welcome to Dean Street at Home

1. Enter your details
2. The package will arrive at an address of your choice
3. Return your test kit to the nearest service provider
4. The Dean Street team will return your result

HIV postal test

FREE AND CONFIDENTIAL

If you are worried about going to a clinic for a test, or find it hard to get there, why not get a free postal HIV test sent out to you?

It's better to know.

Knowing you're HIV positive as soon as possible helps you to better manage your condition and reduces the risk of transmitting the virus to other people. Regular testing for HIV is essential to ensure you know your HIV status and you are able to stay HIV negative. We recommend you test for HIV at least every year or more often if you have taken a risk.

Easy and convenient.

HIV postal testing allows you to do a quick and easy HIV test without the need to go to a clinic. It's free and confidential and you will receive your result within a week.

HIV postal testing uses a finger prick of blood which is tested in a laboratory using a 4th generation HIV test. This is a test that will detect HIV infection after a 'window period' of 4 weeks.

[Questions about the test?](#)

THIVK
THIVK. TEST. TAKE CONTROL.

Order your test
Just click here to order your HIV postal test now!

- HIV tests ordered on-line
 - 4th generation dried blood spot
 - 3rd generation oral swab
- Samples posted to laboratory
- Individual informed of result
 - Negatives by text
 - Positives by phone and letter
- Referral to HIV service recommended



HIV Self-Sampling Services

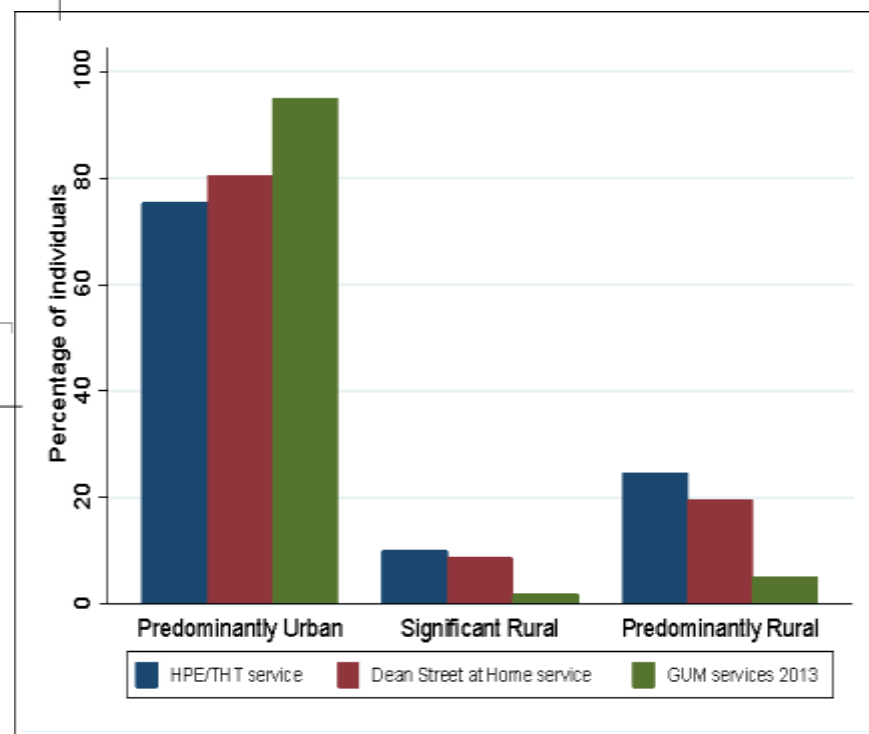
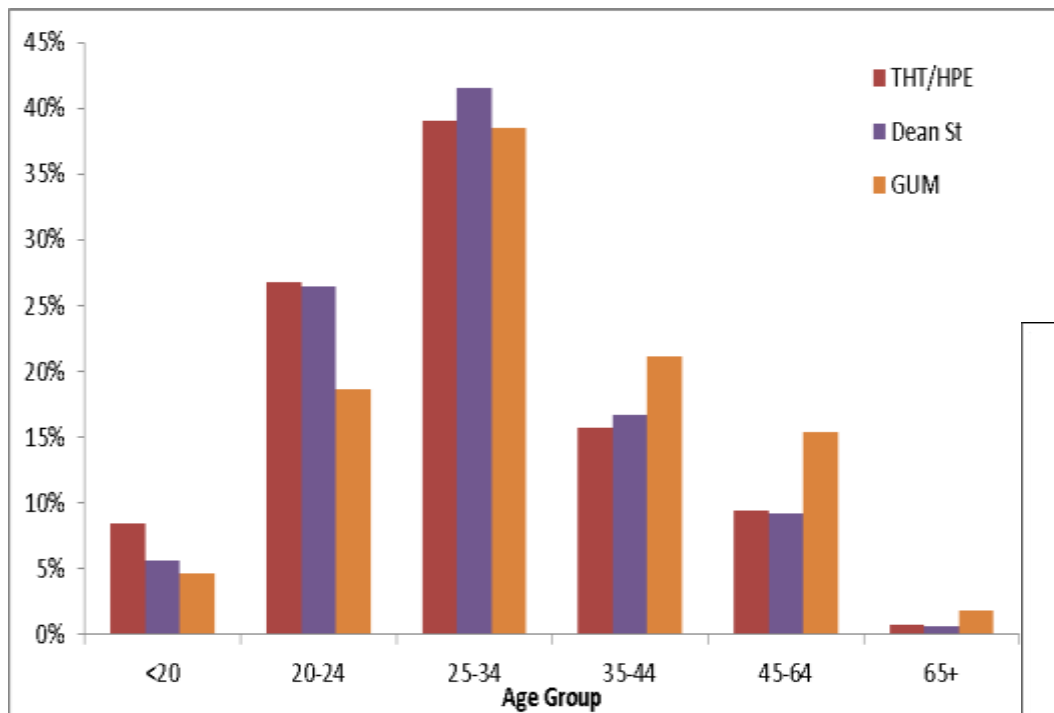
- 6 months of operation (Nov 13-Mar 14), these two services have delivered:
 - 12,485 test requests
 - 6,593 returned (53%)
 - 92 new diagnoses (1.4% positivity)
- Unique selling points of self-sampling:
 - High volumes managed through the internet
 - Different to clinic populations (younger and more rural)
 - Used by those at high risk due to testing and sexual behaviour
- Establishment of a national service

Relationship to marketing (Phase 2)



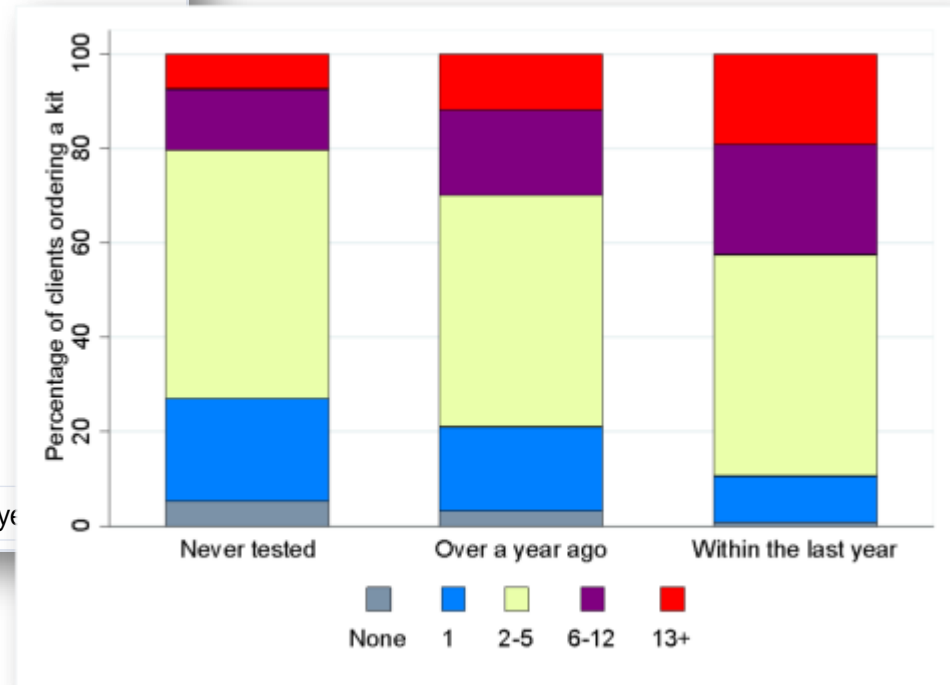
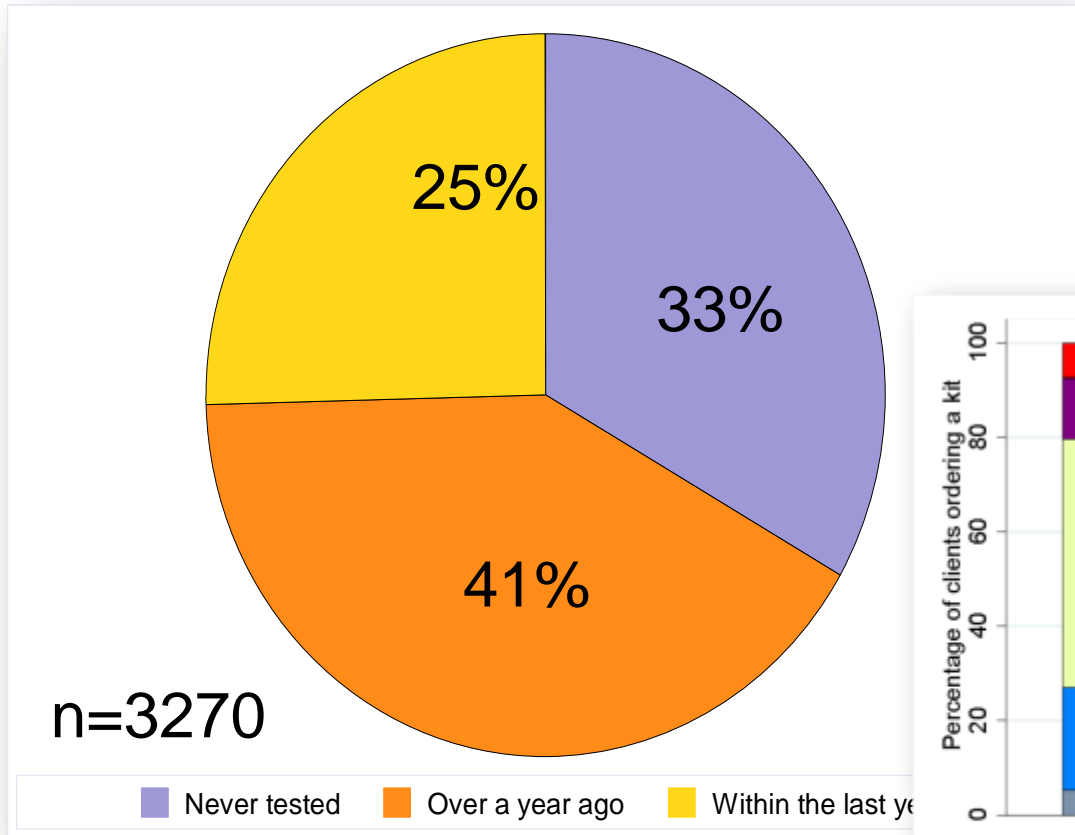


Socio-demography of users (MSM)





Risk behaviour of users (MSM)





Conclusion

HIV testing major component of prevention strategy

HIV testing strategies reflect the local epidemiology:

- Services with high background prevalence
- Individuals with a risk for HIV
- Illnesses and conditions with high background prevalence

Improve HIV testing by:

- Expansion in general medical services
- Promoting HIV testing in at-risk communities



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England

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Thank you