



Public Health
England



Blood and Transplant

What do we know about UK blood donors? Going in search of the bigger picture

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19 Years of a national surveillance scheme



Donor records



Laboratories



Clinical teams



**2013
report
COMING
SOON**

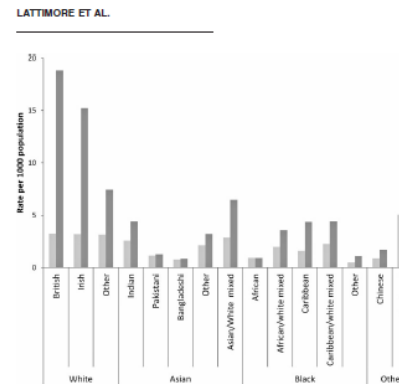


NHSBT donors

Lattimore *et al. Transfusion. 2014*

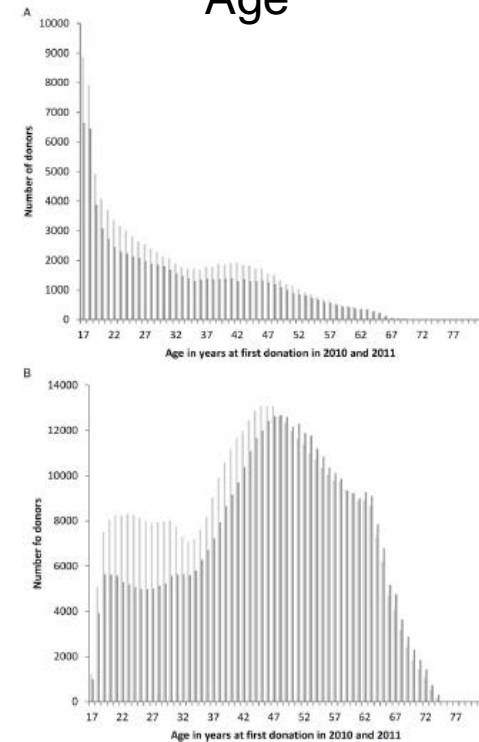
- 2 million donations from 1 million individuals
 - ~2 donations per donor
 - 2 of 5 new donors returned <6 months
- Females > males
- Variation by geographical region

Ethnic group



- 9 of 10 white British
- 3 of 100 BAME

Age



New donors younger
than repeat donors

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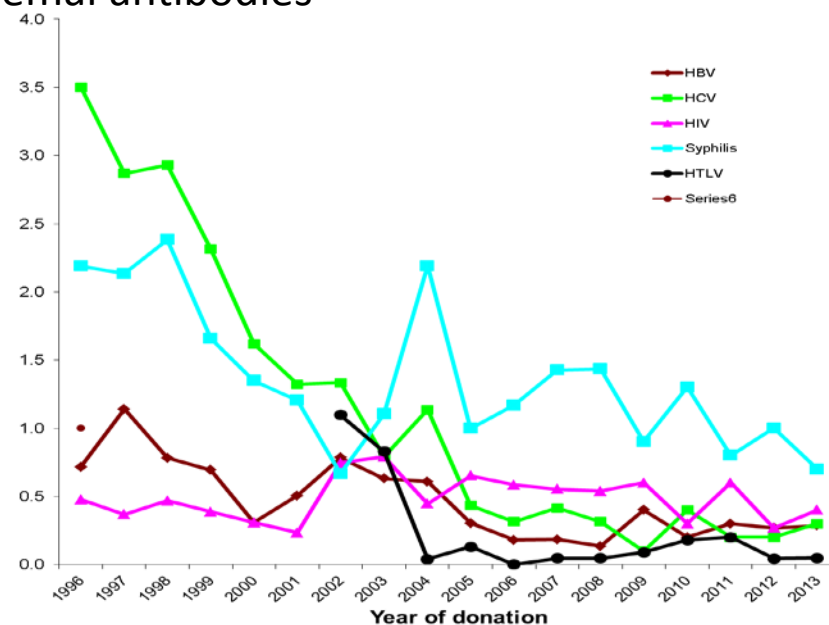
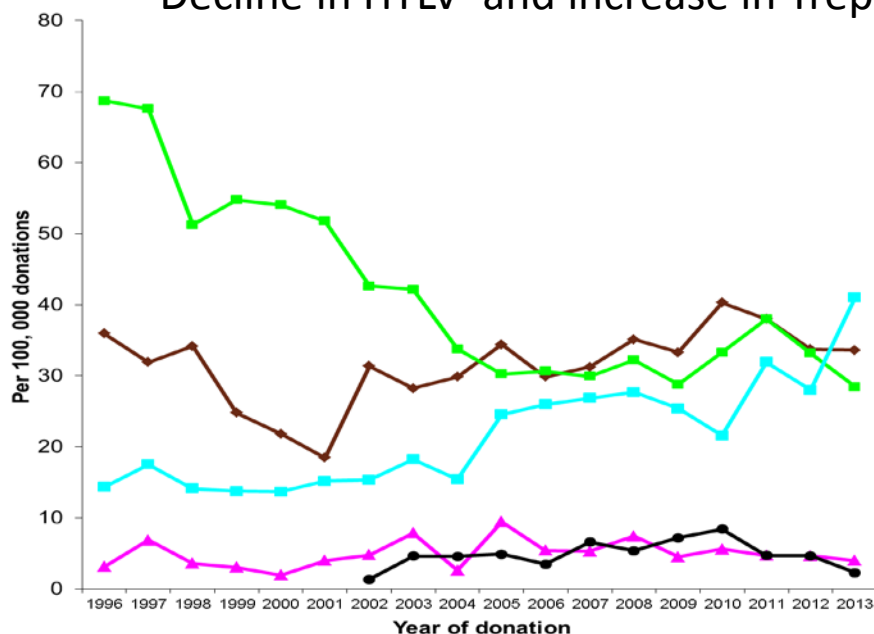
UK infected blood donors

Rates in new > repeat

Decline since 1996

Little change in last 5 years, except in new donors

- Decline in HTLV and increase in Treponemal antibodies





UK infected blood donors 2013

1 in 10,000 donors test positive

- 193 in new donors (80%), 37 in repeat (20%)
- 57 HBV, 42 HCV and 68 TP
- 15 HIV and 5 HTLV

9 of 10 are past or chronic infections

- HBV, HTLV and some HCV associated with endemic country
- TP long-past sexual contact
- HCV past injecting

1 in 10 are acute or recent (higher risk to supply)

- HIV, HBV, HTLV and TP associated with sex



Unexpected finding

Hewitt *et al.* BMJ. 2011

3 HIV positive repeat blood donors

> 64 years

Seroconversion illness

Contact with medical services

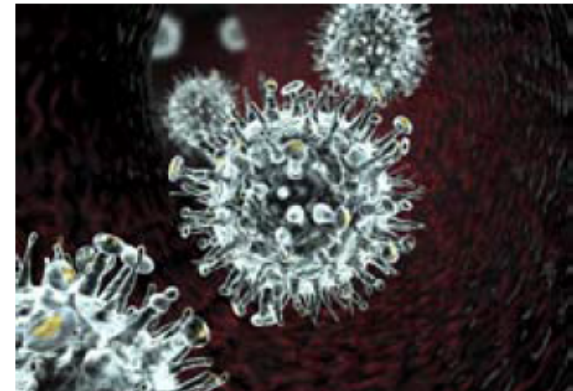
- GP
- Hospital admission

Clear exposure history

- New sexual partner
- Lifestyle risk

HIV TESTING

Don't forget the over 60s



White reported routine offers of HIV tests at an accident and emergency department,¹ while Das and colleagues discussed primary HIV infection as “easily missed.”² Our recent experience with three older people suggests that opportunistic offers of HIV testing should be more widespread.



“Compliance” - a donor understands the rule and applies it correctly

Cristiano says that – no inking

PORTUGUESE superstar Cristiano Ronaldo has revealed the reason behind his tattoo-free body – he is a regular blood donor. The Real Madrid star is rare among today's footballing heroes who are keen to cover themselves in ink. But Ronaldo steers clear of the tattoo man's needle because it could prevent him donating a pint or two of the red stuff. According to Directa News, when asked about his lack

of body art, Ronaldo said: 'I don't have tattoos because I donate blood very often.' If that was not enough, the 29-year-old also gives away his bone marrow. 'Donating bone marrow is something a lot of people think is a difficult thing to do but it's nothing more than drawing blood and doesn't hurt,' he said. 'It's a simple process and you feel happy because you know you are helping another person.'



**Ink free:
Ronaldo**



Non-compliance with UK DHCs, 2013

PWID	Piercing	SBM	SBMW High risk partner	Commercial sex worker	Known infection	N
6 HCV	3 HCV	4 HIV 1 HIV/TP 2 TP	1 HIV 1 HCV	1 TP	1 HCV 1 HBV	21

Forgot

Lack of
privacy

Self-
assessed
low risk

Did not
understand
the question



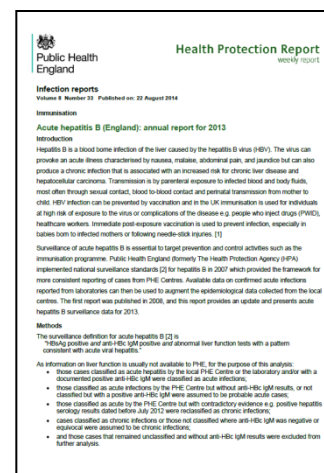
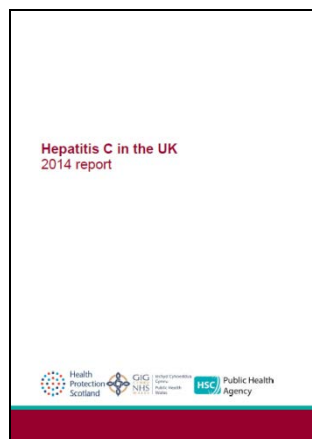
General population

HCV 2013

- 0.4% adults infected
- ~90% of HCV diagnoses among PWID
- Sex transmission rare

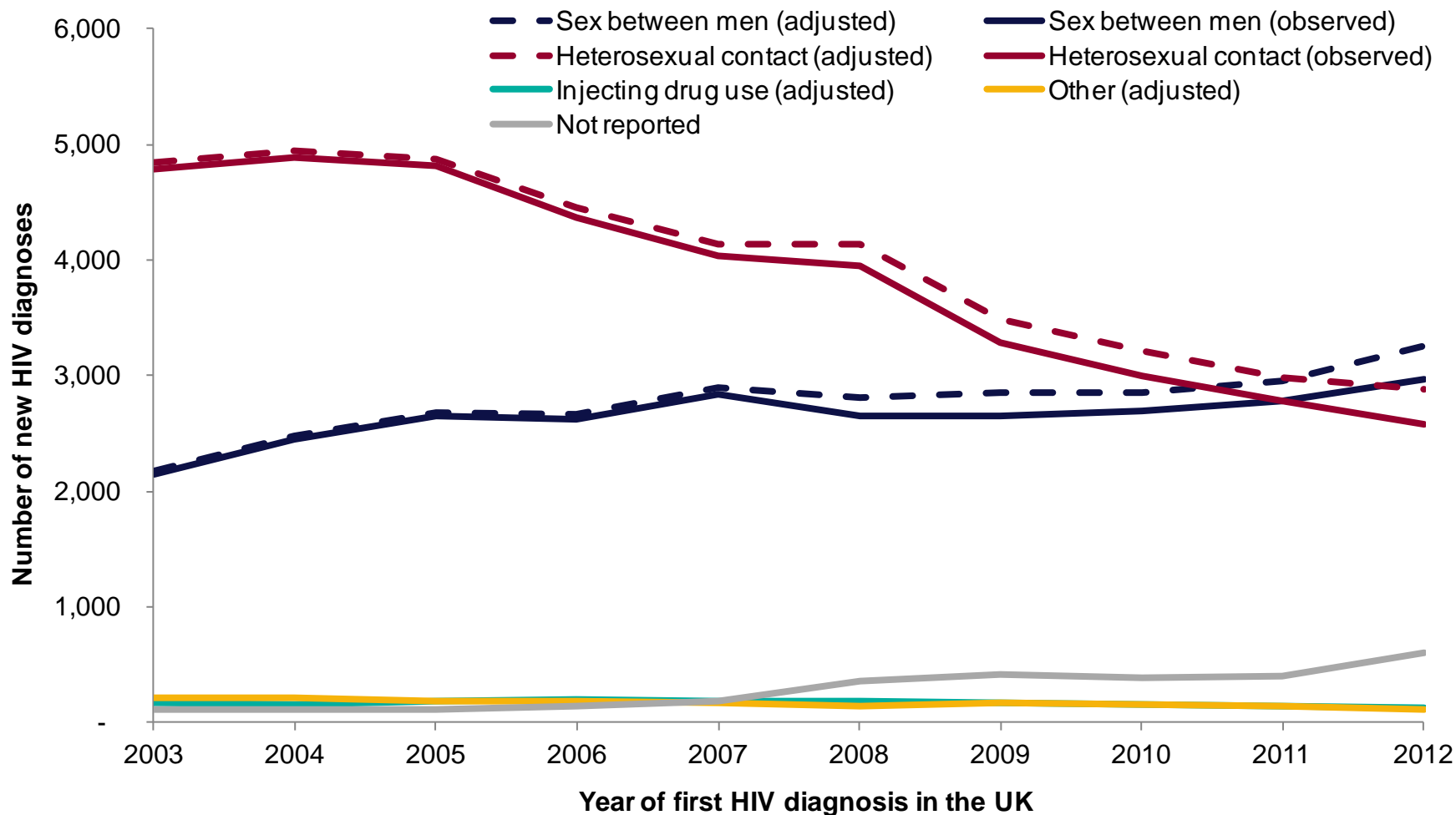
HBV 2013

- 0.3% HBV carriage
- No universal vaccination programme
- ~ 5000 reports a year, 10% acute
 - Men account for 7 of 10
 - Acute associated with sex
 - Chronic associated with endemic country





New HIV diagnoses by exposure group: United Kingdom, 2003 – 2012





Syphilis in UK – a metapopulation

Infectious syphilis is endemic in parts UK

- Rates are higher than 1950's

Outbreaks are a feature

2012 – 2014 6 outbreaks

- MSM and young (<19y) heterosexuals
- Social networking reducing time for epidemics to evolve

Public health response ongoing

Infection reports

Volume 7 Number 44 Published on: 1 November 2013

HIV-STIs

Recent epidemiology of infectious syphilis and congenital syphilis

Recent epidemiology of infectious syphilis in England

Over the decade 2003 to 2012 diagnoses of infectious syphilis (primary, secondary and early latent) made at genitourinary medicine (GUM) clinics in England increased by 61% (from 1688 to 2713) in men (figure 1). In contrast diagnoses in women decreased by 16% (from 317 to 265). In 2012, 2978 cases of infectious syphilis were diagnosed in GUM clinics, 2713 in men of which 2061 were in MSM, and 265 in

EDITORIAL

Infectious syphilis in young heterosexuals: responding to an evolving epidemic

I Simms PhD*, G Bell MA† and G Hughes PhD*

*HIV & STI Department, Health Protection Services Colindale, Health Protection Agency, London; †Department of Genitourinary Medicine, Royal Hallamshire Hospital, Sheffield, UK

RAPID COMMUNICATIONS

Recent outbreaks of infectious syphilis, United Kingdom, January 2012 to April 2014

I Simms (Ian.Simms@phe.gov.uk)¹, L Wallace², D R Thomas³, L Emmett⁴, A G Shankar⁵, M Vinson⁶, S Padfield⁷, U Andradóttir⁸, C J Williams⁹, C Midgley¹⁰, C Johnman¹, A McLellan¹, A Currie¹, J Logan¹, G Leslie¹, K Licence¹, G Hughes¹

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2. Health Protection Scotland, United Kingdom
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5. Anglia & Essex Public Health England Centre, United Kingdom
6. South Midlands and Hertfordshire Public Health England Centre, United Kingdom
7. Yorkshire and Humber Field Epidemiological Unit Public Health England, United Kingdom
8. Betsi Cadwaladr University Health Board, United Kingdom
9. NHS Lanarkshire, United Kingdom
10. NHS Tayside, United Kingdom

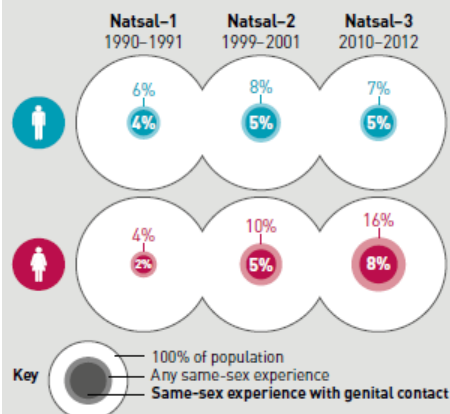
© 2013 British Association of Sexual Health and HIV

Sexual attitudes and lifestyles in Britain: Highlights from Natsal-3

We interviewed 15,162 men and women aged 16-74 between September 2010 and August 2012. They provided us with valuable information about their experiences, behaviours, and views which will shape our understanding of sexual health in Britain. Here we present highlights from our initial findings. The full articles can be found in *The Lancet* (www.thelancet.com/themed/natsal) and details of the study methodology are on the Natsal website (www.natsal.ac.uk). More results will be published in the coming months, so please check the Natsal website for updates.



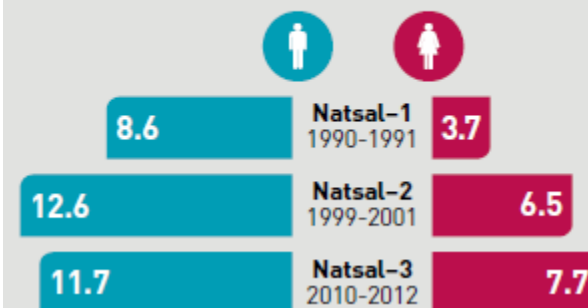
Percentage of the population who have ever had same-sex experience (people aged 16-44)



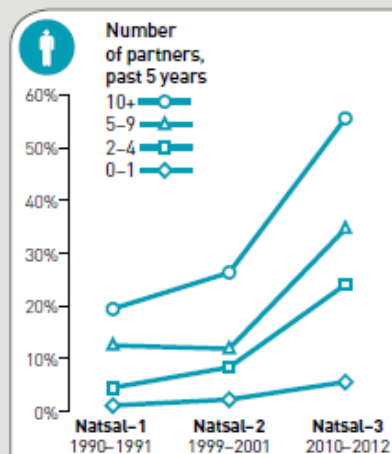
Changes in sexual behaviour, e.g.

- Increase in number lifetime partners
- More same-sex experience
- Increase in people reporting an GUM attendance/HIV test

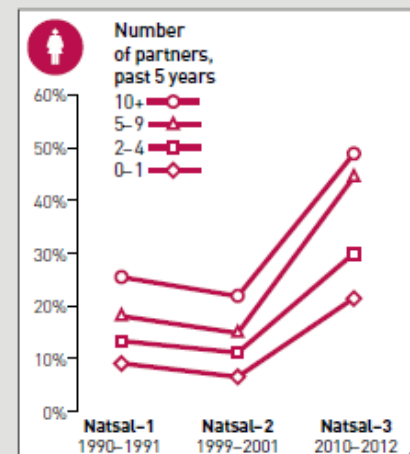
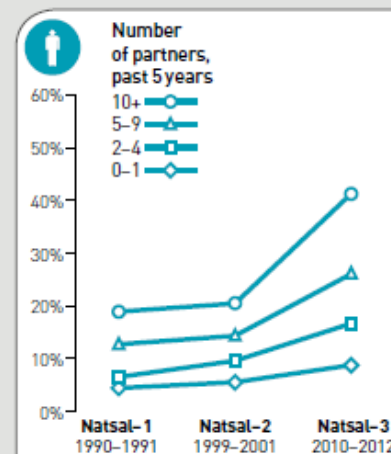
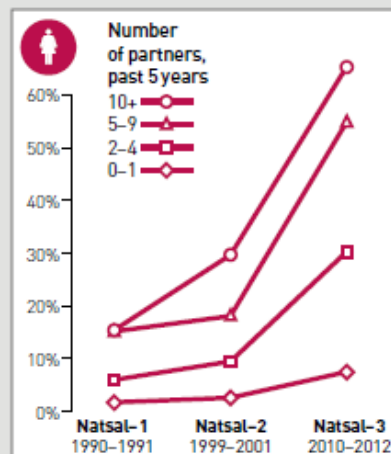
Average (mean) number of opposite-sex partners, lifetime (people aged 16-44)



Sexual health clinic attendance, past 5 years (people aged 16-44)



HIV testing, past 5 years (people aged 16-44)





Going in search of the bigger picture





The UK blood donor survey - the rationale

“MSM deferral” changed in 2011

- modelling HIV risk showed compliance with DHC was key
(Davison *et al.* Vox. 2013)
- to assess compliance in UK, a large scale survey of donors was proposed

<http://www.transfusionguidelines.org.uk/dsg>





UK blood donor survey: materials and methods



Anonymous, unlinked online questionnaire

- based on current DHC
- compliance & reasons for non-compliance
- post donation events/illness
- motivations
- view of donor health check form



Invitation & reminder to donors (blood service)

- email with URLs for information webpage & questionnaire



Information for donors

- PHE website
- donorsurvey@phe.gov.uk



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Getting the materials right – the focus group

Facilitated online 2013

- 5 new and 5 repeat donors
- asked to comment on questionnaire, emails & website

Findings

- materials were well received
- unlikely to impact on intention to donate
- little concern over the sensitive nature questions

Next steps

- Minor revisions to materials
- New & repeat versions of the questionnaire, Welsh translation
- Complaints procedure defined



Getting *all of it* right – the pilots

To ensure recruitment, survey and complaints procedures were effective and appropriate

- Across all four UK blood services - 2013

NHSBT pilot

- 800 donors, 24% responded, 22% completed (reminder necessary)
- recruitment systems effective
- evidence of non-compliance & test seeking behaviour
- 2 donors contacted the survey team, no complaints

Similar outcomes for the other services



Getting it off the ground

Further revisions to the questionnaire

Protocol finalised

- all eligible new donors & equal number of repeat
- each month for 1 year, donors emailed invite + 2 reminders

Communication & customer service teams engaged

Contingency plan defined

“Go-live”

- NHSBT 4th November 2013, other services February 2014

Resources

- non-pay costs £15,000
- time 2.5 years from first steering group to final report



Survey so far

11 of 12 surveys complete

Modifications

- travel to Middle East
- increased number of repeat donors sampled

Responses by August survey

- 177,231 invited, 52,223 (29%) responded (104% of target)
- evidence of behaviours not disclosed at donation session, post donation events & illnesses
- comments regarding donation
- reasons for non-compliance
- 53 complaints among 177,231 participants (0.03%)



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Summary

A national blood donor surveillance scheme in UK since 1995

- monitor donors in relation to patterns of donations & frequency of infections
- able to assess some aspects of blood safety policy
- BUT limited without broader understanding of donors

A large scale national survey

- focus group & pilot – acceptable and feasible
- good response rate of 29%
- data on behaviour 50,000+ donors

***The UK's largest & most comprehensive
assessment of donor compliance***



Thank you
Katy.davison@phe.gov.uk

Acknowledgements for the UK blood donor survey

Survey team:

Su Brailsford NHSBT/PHE (PI)
Claire Reynolds NHSBT
Nick Andrews PHE (statistician)

Steering Group:

Harpreet Kohli – Chair (SABTO)
Gail Miflin NHSBT
Crispin Wickenden NHSBT
Felicity Hay NHSBT
Joanne Allan WBS
Stephen Field WBS
Moiria Carter SNBTS
Kathryn Maguire NIBTS
John Ratchford PHE

Others:

Andrew Reid SNBTS
David Moore NIBTS
Rhian Roberts WBS
Nicola Thomas WBS





What do we know?

At session

- Donors register
- Answer Qs (Age, sex, ethnicity)
- Make their donation

Donor Insight NHSBT

- Annual breakdown of all donations made
- Age, sex, ethnicity, new/rpt, geography

Testing Centres

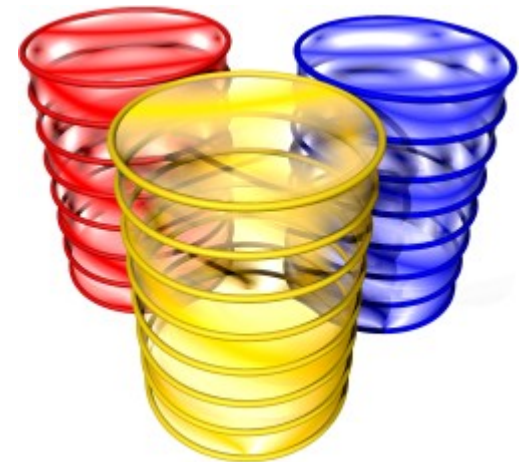
- Initially reactive and repeat reactive donations
- Demographic data

Confirmatory testing

- Final test result/infection status determined

Clinicians

- Detailed risk/exposure information
- compliance
- Pseudo-anonymised



National Surveillance Database



Application of surveillance data

2011-2013 UK estimates of a donation being made in the window period, risk = WP x incidence (x adjustment)

- HBV: 1 in 2.2 million (1 per year)
- HIV: 1 in 6 million (1 every 2.5 years)
- HCV: 1 in 40 million (1 every 17 years)

Observed TTIs, last ones seen

- HBV: 2011, 2012
- HCV: 1997
- HIV: 2002

- The 1982 Eurovision song contest was held in Harrogate at this conference centre – who won?
- Nicole “a little peace”