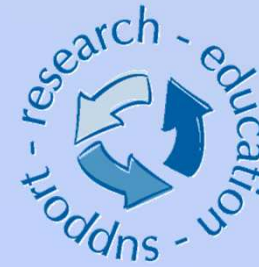


16<sup>th</sup> Annual Conference of the  
National HIV Nurses Association (NHIVNA)



National HIV Nurses Association

# Jonathan Roberts

Brighton and Sussex University Hospitals NHS Trust

*26-27 June 2014- City Hall, Cardiff*



# PARTNER NOTIFICATION: FINDINGS FROM 2013 BASHH & BHIVA NATIONAL AUDIT

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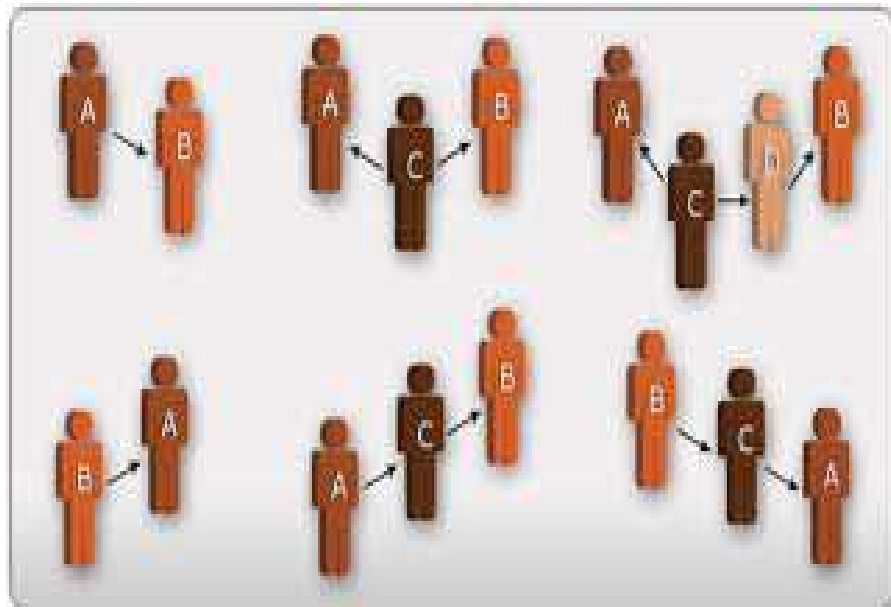
JONATHAN ROBERTS –LIAISON HEALTH ADVISOR

ON BEHALF OF THE BASHH NATIONAL AUDIT GROUP AND BHIVA AUDIT AND  
STANDARDS SUB-COMMITTEE

## PARTNER NOTIFICATION (PN)

*“The process of informing the sexual partners of people with sexually transmitted infections including HIV of their potential exposure to infection, ensuring their evaluation and/or treatment, and providing advice about preventing future infection.”*

WHO/UNAIDS, 1999



## HIV PARTNER NOTIFICATION

- How many of undertake some aspects of HIV PN as part of your role ?



## HIV PN AND NEW HIV DIAGNOSES

	Number of studies, reports	Index cases	Number or proportion of elicited cases who tested	Median number named partners	New HIV+ (% of number tested)
Hogben, 2007, systematic review	9	3437	1914		20%
UK aggregate audit data#	9		28% (11-67)		27% (10-37)
GUMCAD 2012 –PNH n=1338					8% 9.5% MSM 8.1% HETM 7.6% F
<u>Moore 2009</u> Index with EHI		9044		1	5%
Index with AHI		120		2	6%

#Manavi, 2008, Armstrong, 2012, Knapper, 2008, Unpublished data cited in NAT "HIV Partner Notification: a missed opportunity?" 2012

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## METHODS

- Case note review of up to 40 consecutive patients newly diagnosed with HIV infection in 2011 (index cases) and their contacts (up to 5 per index case)
- 169 HIV services (156 GUM, 13 non-GUM) took part



## HIV PN AUDIT

- How Many of you were involved in the BASHH/BHIVA HIV PN audit ?



## BASHH/ BHIVA NATIONAL AUDIT GROUP PRODUCE QUESTIONNAIRE ON HIV PN 2013

- 49 Questions
- Questions 2-6 Demographics / Risk
- Questions 7-11 HIV Testing & Prognostic markers
- Questions 12- 22 PN process for index
- Questions 23 -49 PN process for contacts



## INDEX PATIENT CHARACTERISTICS

- **N=2964**
- 69% male (63% MSM)
- 52% white, 33% black African
- 60% under 40 yrs
- 0.5% IDU

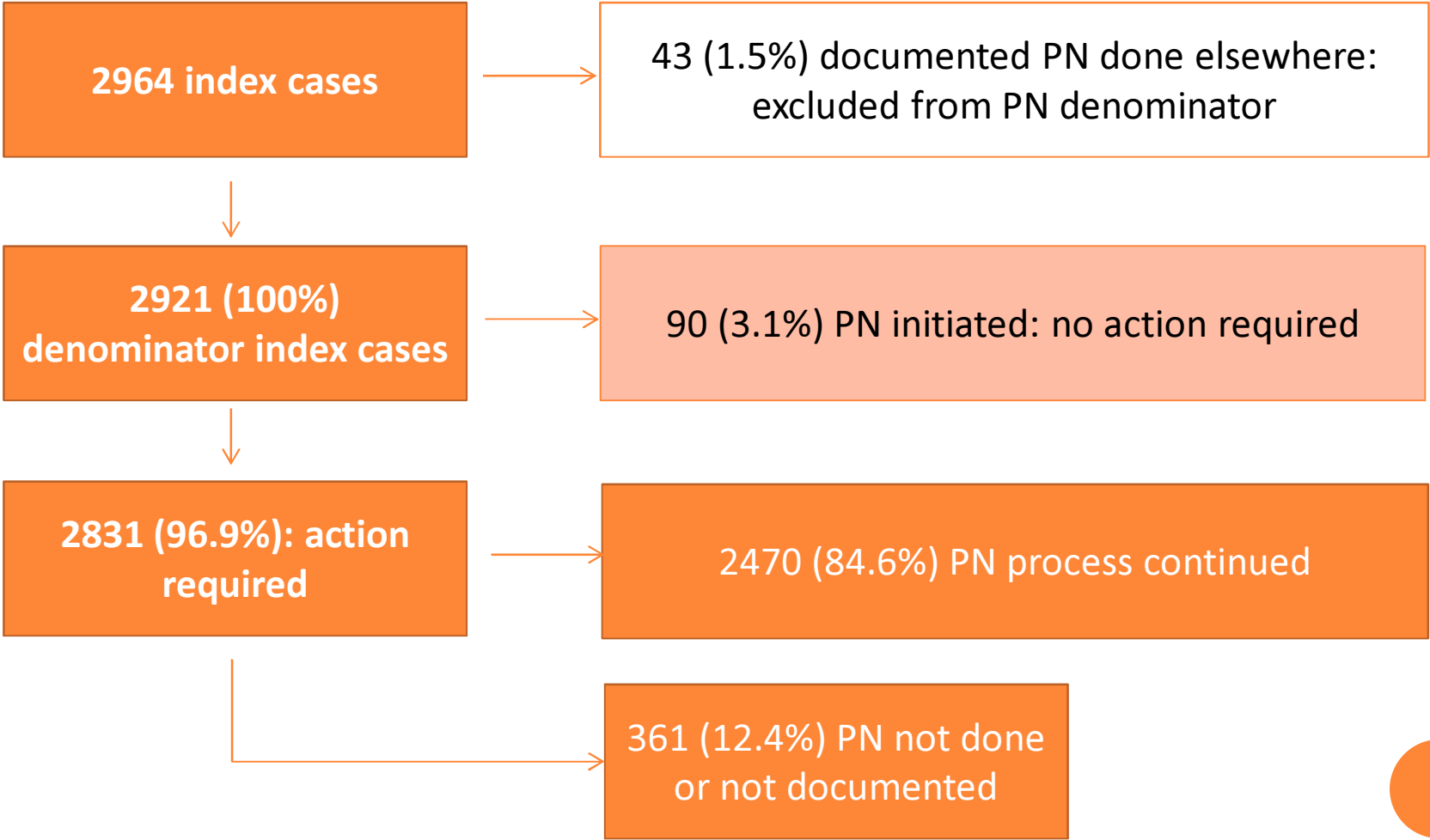


## DURATION OF INFECTION

- Time from infection to diagnosis could be estimated for **53.6%** (n=1590) index patients
- **23.7%** (n=377) were recently infected (within 6 months) with supporting RITA data supplied for 57 (15%)



# PARTNER NOTIFICATION PROCESS



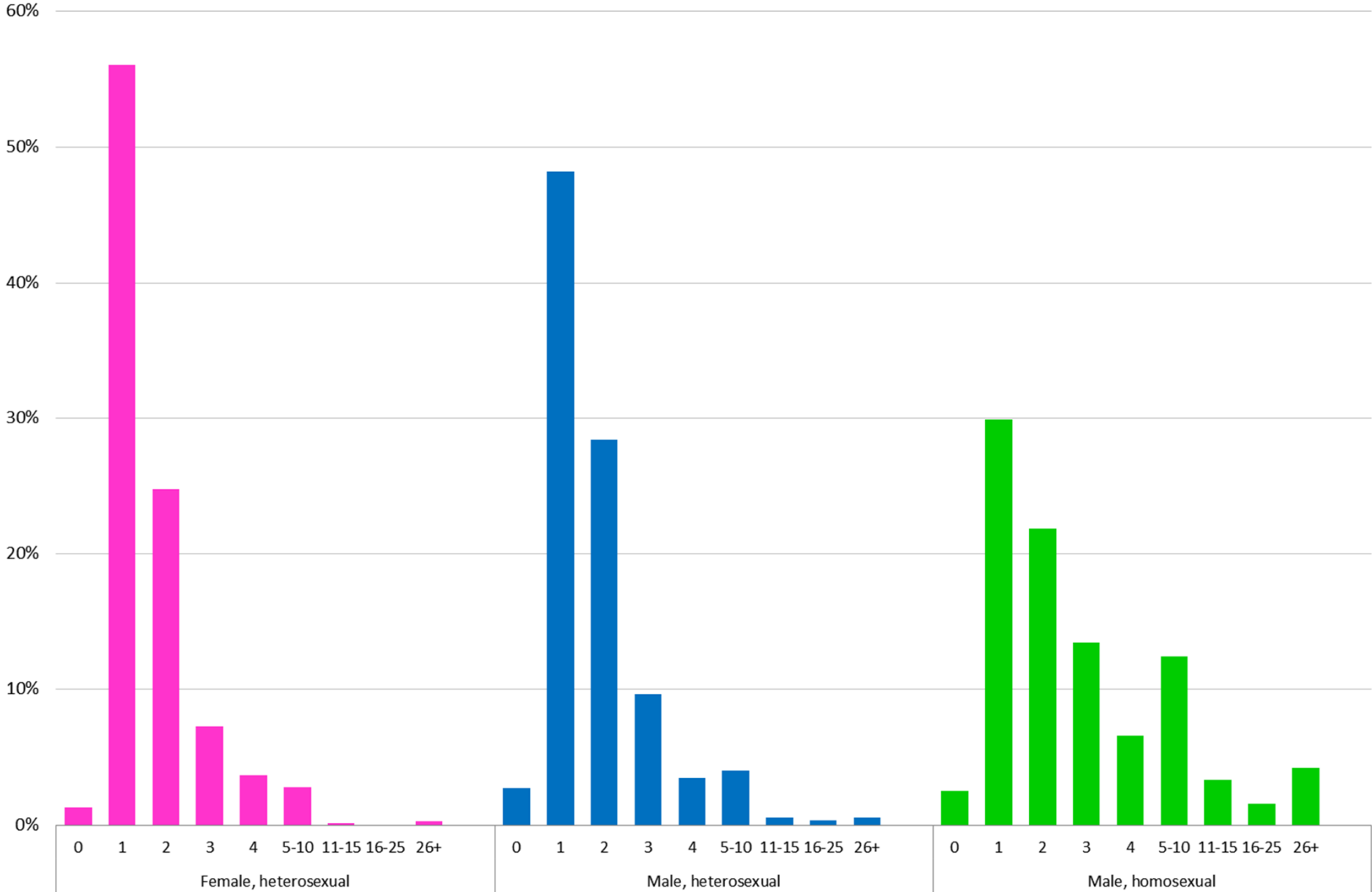
## AUDIT COMPLETION FOR CONTACTS

- **3211** contacts were audited. Index cases were estimated to have over 6400 contacts
- 1051 index cases had only one contact:
  - 923 (87.8%) of their contacts were audited
- The proportion of contacts audited was lower for index cases with higher numbers of contacts

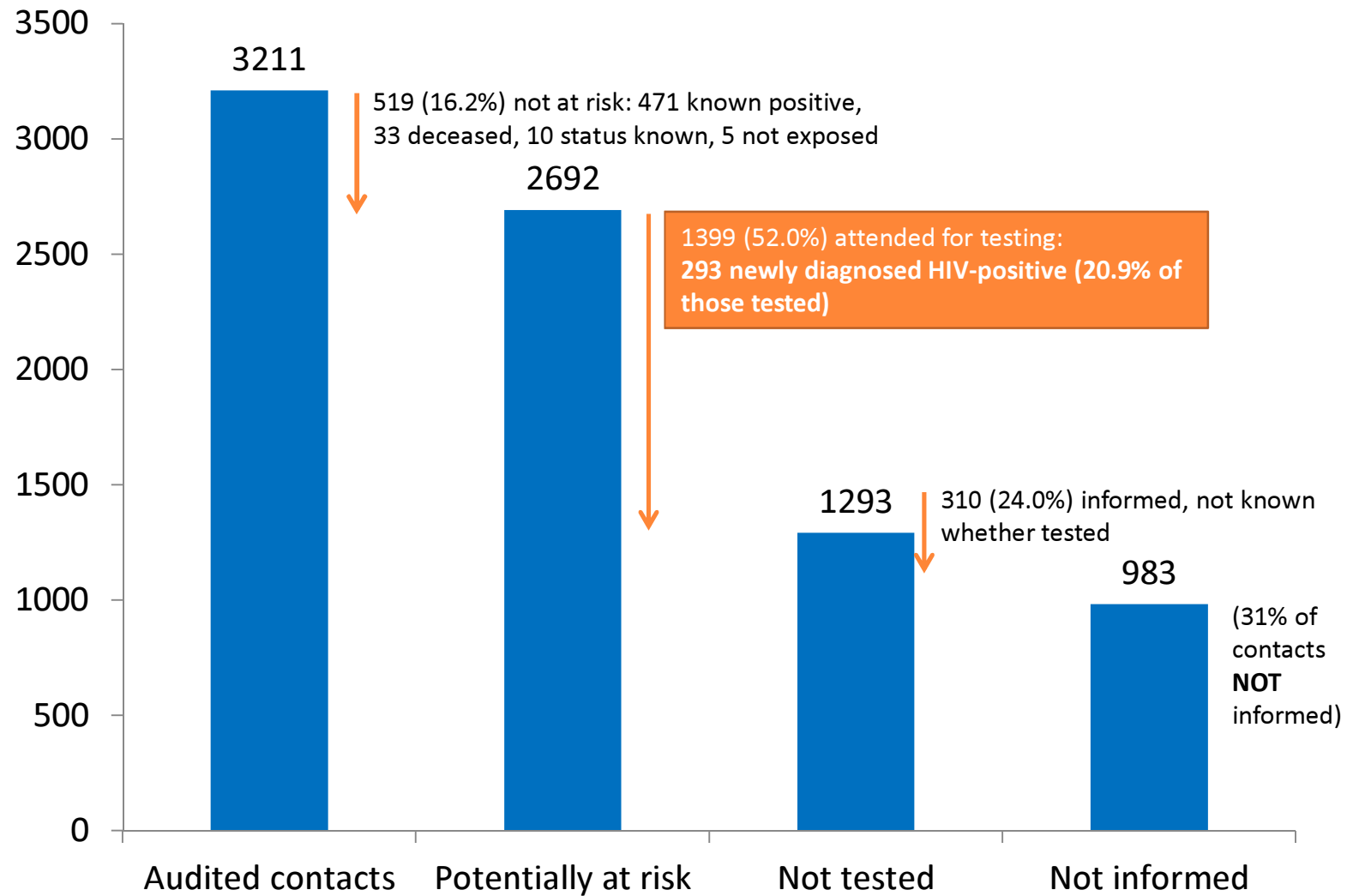




# DISTRIBUTION OF NUMBERS OF CONTACTS PER INDEX CASE



# PN PROCESS FOR CONTACTS



**21% of 1399 susceptible contacts tested  
through PN process were newly diagnosed  
with HIV infection**

**One new case of HIV was diagnosed through  
PN for every 10 index cases**



## VARIATION IN PREVALENCE BY INDEX PATIENT CHARACTERISTICS

Index patient	Number of contacts tested	% prevalence among tested contacts
<b>All</b>	<b>1399</b>	<b>20.9</b>
Male	944	20.1
Female	425	23.3
Heterosexual	694	23.5
Homosexual	609	18.6
White	784	19.5
Black-African	419	24.6
Under 40	893	20.7
40 or over	480	22.1
Recently infected (within 6 months)	188	18.6
Not recently infected	657	21.9



## VARIATION IN PREVALENCE BY CONTACT TYPE

Contact type	Number of contacts tested	% prevalence among tested contacts
All	1399	20.9
<b>Sexual contacts:</b>		
Regular	890	26.5
Ex-regular	176	13.6
Casual known	197	11.7



## VARIATION IN PREVALENCE BY BASHH REGION

- Wide range observed across regions
  - 9.5% in Northern region
  - 29.4% in Wales
- Partnership type remains only independent predictor of prevalence in contacts



## PN NON-COMPLETION BY CONTACT TYPE

Contact type	Total audited	Potentially at risk and not informed
All	3211	983 (30.6%)
<b>Sexual contacts:</b>		
Regular	1422	130 (9.1%)
Ex-regular	577	238 (41.2%)
Casual known	562	189 (33.6%)
Casual unknown	377	341 (90.5%)



## PN OUTCOMES

Outcome as defined by BASHH PN Statement, per index case:

- **0.45** contacts verified by health care worker (HCW) as having attended a service
- **0.64** contacts attended a service including patient report
- **0.75** if contacts informed of risk but not known to have attended a service are also included

Outcome for contacts at risk of having undiagnosed HIV, per index case:

- **0.29** HCW verified contacts at risk attended a service
- **0.48** contacts at risk attended a service including patient report





## VARIATION IN OUTCOMES: CONTACTS ATTENDING PER INDEX PATIENT

Index patient	Contacts	At risk contacts
<b>All</b>	<b>0.64</b>	<b>0.48</b>
Male	0.66	0.48
Female	0.62	0.49
Heterosexual	0.63	0.47
Homosexual	0.69	0.50
White	0.72	0.52
Black-African	0.56	0.43
Under 40	0.69	0.52
40 or over	0.58	0.43
Recently infected (within 6 months)	0.76	0.50
Not recently infected	0.71	0.54
Had audited regular partner	1.03	0.77
No audited regular partner	0.42	0.30

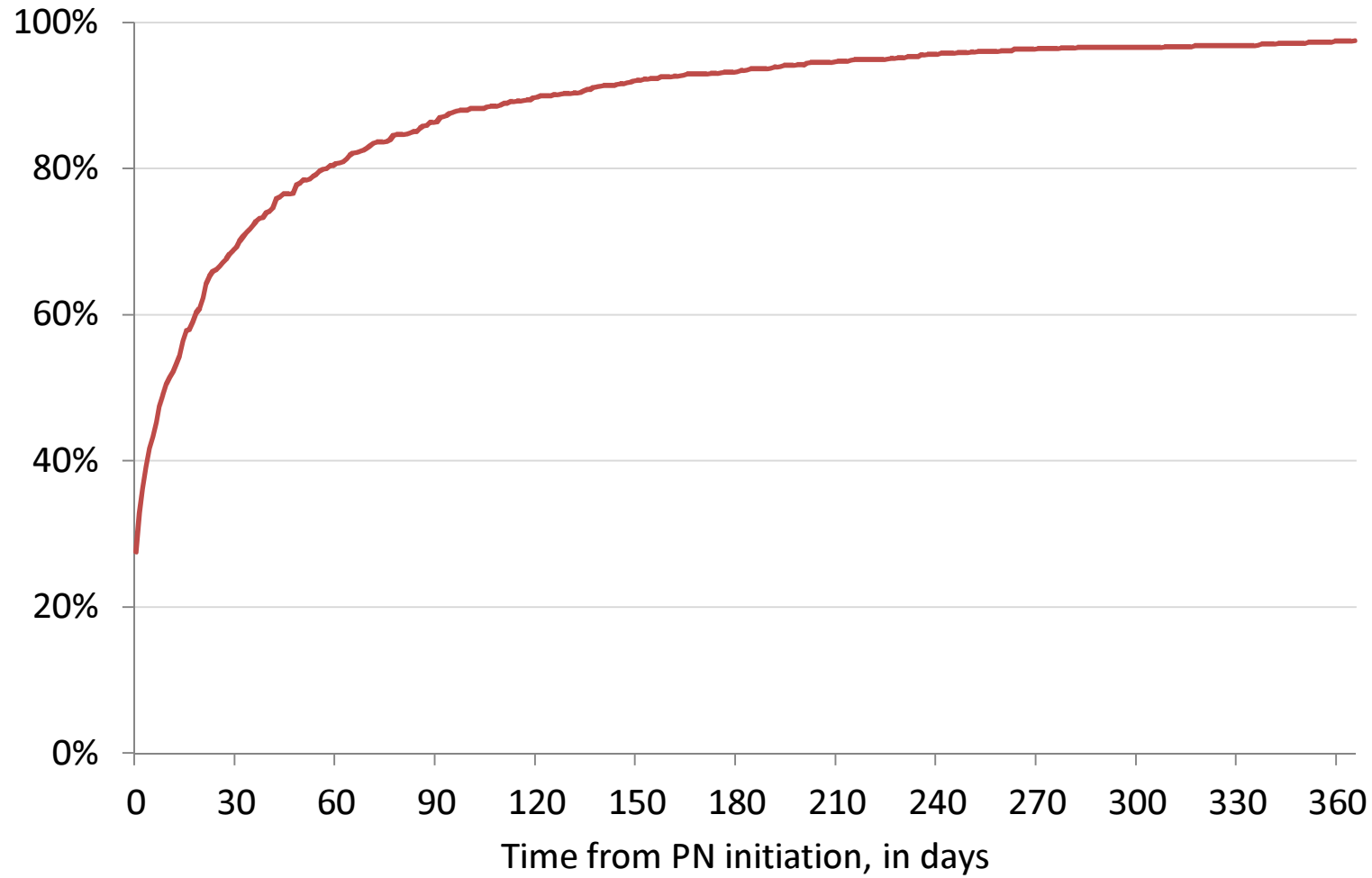


## SUMMARY OUTCOMES AND REGIONAL VARIATION

	Percentage for whom PN done	At risk contacts attending service per index case
<b>Total (range across regions)</b>	<b>87.6 (62.0 – 97.0)</b>	<b>0.48 (0.31 – 0.70)</b>

- It is very unlikely that case mix variation wholly explains differences in site-to-site outcomes

# TIME TO OUTCOME: KAPLAN-MEIER PLOT SHOWING AT RISK CONTACTS WHO ATTENDED (N=1057)



## LIMITATIONS

Some data quality issues – inconsistent reporting in relation to:

- Contacts already known to have HIV, been tested or deceased
- Index patients for whom PN may have been conducted elsewhere

Maximum of 5 contacts audited per index case – many contacts not audited



## CONCLUSIONS

- PN is an effective strategy for diagnosing HIV:
  - Prevalence of newly diagnosed HIV: 20.9% among tested contacts
  - One contact was newly diagnosed for every 10 index cases
- However, one in three possibly HIV-positive contactable contacts may have remained undiagnosed



## CONCLUSIONS

- Wide variation in numbers of contacts attending per index case
- Case-mix unlikely to account for this variation
- PN completion substantially higher for regular sexual partners than ex-regular or known casual ones



## RECOMMENDATIONS

- BHIVA and BASHH to disseminate individual site reports detailing site-level outcomes
- All services should review their performance and seek to improve PN outcomes
- PN should include ex-regular and casual known as well as regular partners
- Development of novel HIV PN indicator



## HIV PN - HOW CAN WE IMPROVE POSITIVE OUTCOMES

- Data on the effectiveness of HIV PN
- **Identify areas for improvement**
- Some early steps

**Outcomes (and process) as perceived by index and contacts should positive as well**





# HOW CAN WE IMPROVE POSITIVE OUTCOMES

Documentation

Coding

Data capture and reports (GUMCAD 3, HARS)

Agree definitions, outcomes and standards



# BASHH/NAT/SSHA HIV PN STAKEHOLDER DAY

## Aim

agree – definitions  
outcomes  
standards

Pilot in clinics – London/outside  
size  
different case mix  
different IT systems  
with/without SHA  
GU/ID

Agree national standards - with additional data to enable understanding of any variation



## DEFINITIONS -CONTACTS

**Three** categories

2 for which the outcome is ascertainable or already known

**Contactable** (status unknown)- means of contact available [e.g working mobile, email, sufficient demographic data to generate means of contact - name+dob/address]

**Outcome already known** - HIV status already determined; deceased

**Uncontactable** – a contact for whom the outcome is unknown and for whom the index (or HCP) has no means of contact



## DEFINITIONS

### **HCP verified outcome**

Outcome established directly by HCP e.g. by speaking directly with the contact or by obtaining information about the contact from their own or other healthcare services



# OUTCOMES AND STANDARDS

## Timelines

72 hours - clinically important at time of diagnosis to assess need for PEP

4 weeks from diagnosis for documented agreed plan for all contacts – 97%

**3 months – outcomes recorded and measured against standards**

6 and 12 months - worth continuing if unresolved  
Potentially need for repeat PN with new potential risk



# OUTCOMES

## Denominators

1. Total number of index cases
2. Total number of contactable contacts and contacts whose outcome is already known

## Additional data

3. Total number of contacts



# OUTCOMES

## Numerators

### 1. PN completed

HIV status already determined

Deceased

Those of unknown status who tested

## Additional data

2. Number of contactable contacts

3. Number notified, outcome unknown



## STANDARDS

Number of contactable contacts and contacts whose outcome is already known per index case within the look back period for whom the PN process is complete within 3 months

Proportion (%) of contactable contacts and contacts whose outcome is already known within the look back period for whom the PN process is complete within 3 months

Additional measure

Contactable contacts/total number of contacts





## STANDARDS

PN completed/total number of index cases

**0.6 HCP verified**

PN completed/total number of index cases

**0.8 Index reported**

PN completed/contactable contacts and contacts whose outcome is already known

**65% HCP verified**

PN completed/contactable contacts and contacts whose outcome is already known

**85% Index reported**



# ACKNOWLEDGEMENTS

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E Wilkins

*All clinical services who provided audit data  
Attendees at the BASHH/NAT/SSHA stakeholder day  
Anne Sullivan, Gill Bell, Mike Rayment, Yusef Azad, Claudia Estcourt*

