

Get
Tested

LeEDs

Testing for hep B, hep C & HIV at
Leeds Emergency Departments



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The Leeds Teaching Hospitals



NHS Trust

Get Tested LeEDs

Testing for blood borne viruses (BBV) via notional consent in Leeds
Teaching Hospitals Trust Emergency Departments (ED)

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Disclosures of interest

- This project has been supported through an Association of the British Pharmaceutical Industry (APBI) joint working initiative of NHS Leeds Teaching Hospital Trust (LTHT) with Gilead Sciences
- NHS and PHE partners contributed independent expertise and skills in their own professional capacity without additional financial support.
- Data generation and analysis were done independently by NHS and PHE partners
- Gilead provided technical expertise, project management and funding for project manager and BBV testing during evaluation period
- Content, conclusions and recommendations were agreed by consensus by the authors. These are the authors own agreed views and do not necessarily reflect those of their employers.

Background: Epidemiology

HIV (UK)

- Prevalence 0.2% (92% aware of status)
- 7,500 PLWH undiagnosed
- 2 in 5 late diagnoses
- 56,986 HIV tests performed in UK ED in 2018 (making up 28% of all tests in Secondary Care)
- Positivity in non-GUM settings
 - 0.7% ED
 - 0.5% other secondary care
 - 0.3% GP in extremely high prevalence area

Hepatitis B Virus (England)

- Prevalence 0.4%

Hepatitis C Virus (England)

- Prevalence 0.4%
- 33% unaware of status

Ref:

- **HIV in the United Kingdom: Towards Zero HIV transmissions by 2030**, 2019 report ,Data to end of December 2018
- **Unlinked Anonymous Monitoring (UAM) Survey of HIV and viral hepatitis among PWID: 2019 report** , Health Protection Report ,Volume 13 Number 29 ,16 August 2019

Background: Policy & Testing Guidelines

HIV

- UNAIDS 90-90-90 target
- PHE '*elimination of HIV transmission by 2030*'
- NICE NG60 (2016): in areas high HIV prevalence (>0.2%) offer testing to those having bloods in ED

HCV

- WHO 2030 viral hepatitis elimination targets
- PH43 (2017): Lack of data showing effectiveness of Hep B or C testing in emergency departments

BBV

- ECDC 2018: Routine testing in emergency departments, supported with limited evidence

Ref

- www.ecdc.europa.eu/en/publications-data/public-health-guidance-hiv-hepatitis-b-and-c-testing-eueea
- **UNAIDS. Discussion Paper:** Combination HIV Prevention: Tailoring and Coordinating Biomedical, Behavioural and Structural Strategies 10 to Reduce New HIV Infections
Geneva: UNAIDS; 2010
[Available from:http://files.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/20111110_JC2007_Combination_Prevention_paper_en.pdf].
- **HIV in the United Kingdom: Towards Zero HIV transmissions by 2030**, 2019 report ,Data to end of December 2018

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Methods (1)

Acceptability of ED BBV testing via notional consent:

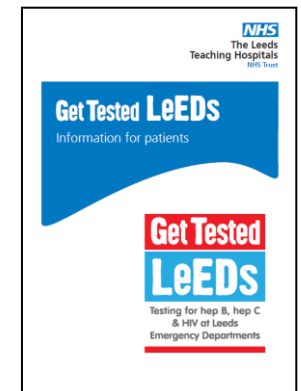
- Patient survey (n=200) conducted prior to implementation of ED BBV testing
 - ED an appropriate testing setting: 100% agreed
 - notional consent acceptable: 83% agreed

Patients (16-65yrs) attending ED 02/10/18-18/03/20 having U&E
offered triple BBV testing

BBV testing electronically reflexed from U&E request



A large number of adults (16-65 years) in Leeds have hepatitis B, hepatitis C or HIV. If you come to our Emergency Departments and need a blood test, we will also test for these infections. Many infected people do not realise they have been at risk and feel well. Each infection, once known about, can be effectively managed or cured.



Methods (2)

Diagnostic pathway

- HCV Ab, HBsAg, HIV Ab/Ag tested via Siemens Centaur
 - Reactive results confirmed via Diasorin XL (+ Geneis for HIV)
 - Confirmed HCV Ab positive had reflexed RNA

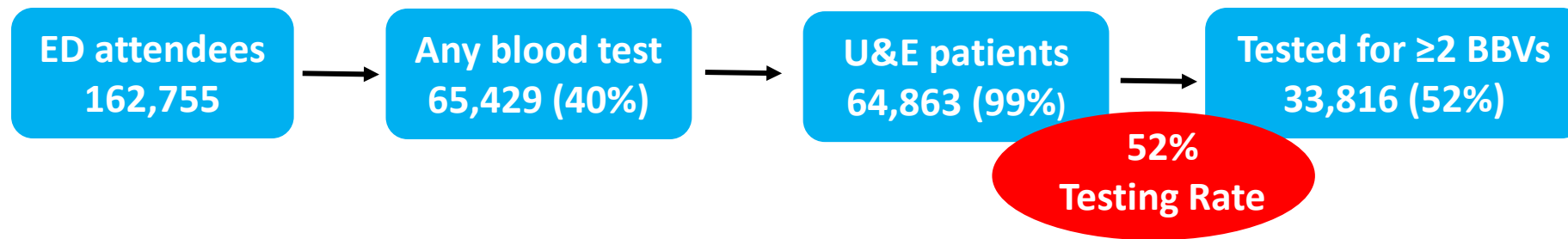
Results pathway

- *'no news is good news'*
- All positive results electronically reported to CNS teams
 - Individuals contacted by letter/phone/community
 - Results given 'face to face' where possible

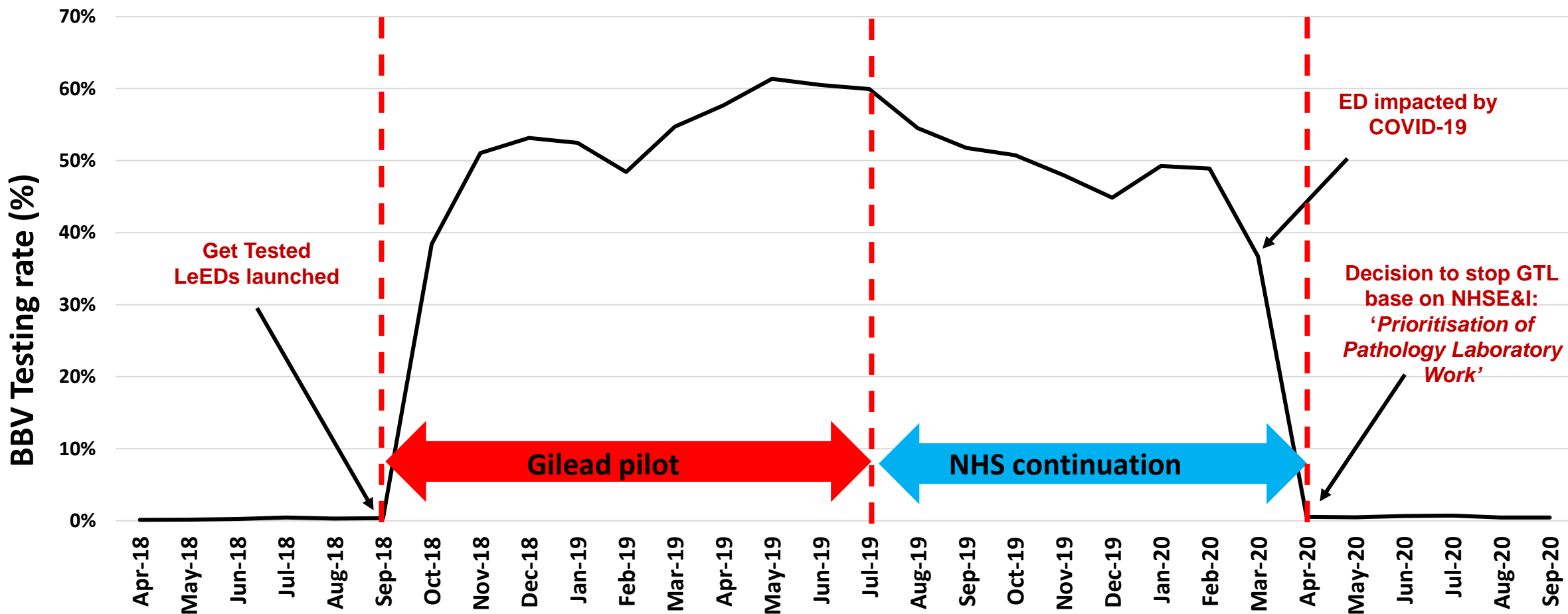
Outcome measures

- Linkage to care: review by HIV/Viral Hepatitis clinical teams
- Engaged in care (HIV/HCV): started treatment

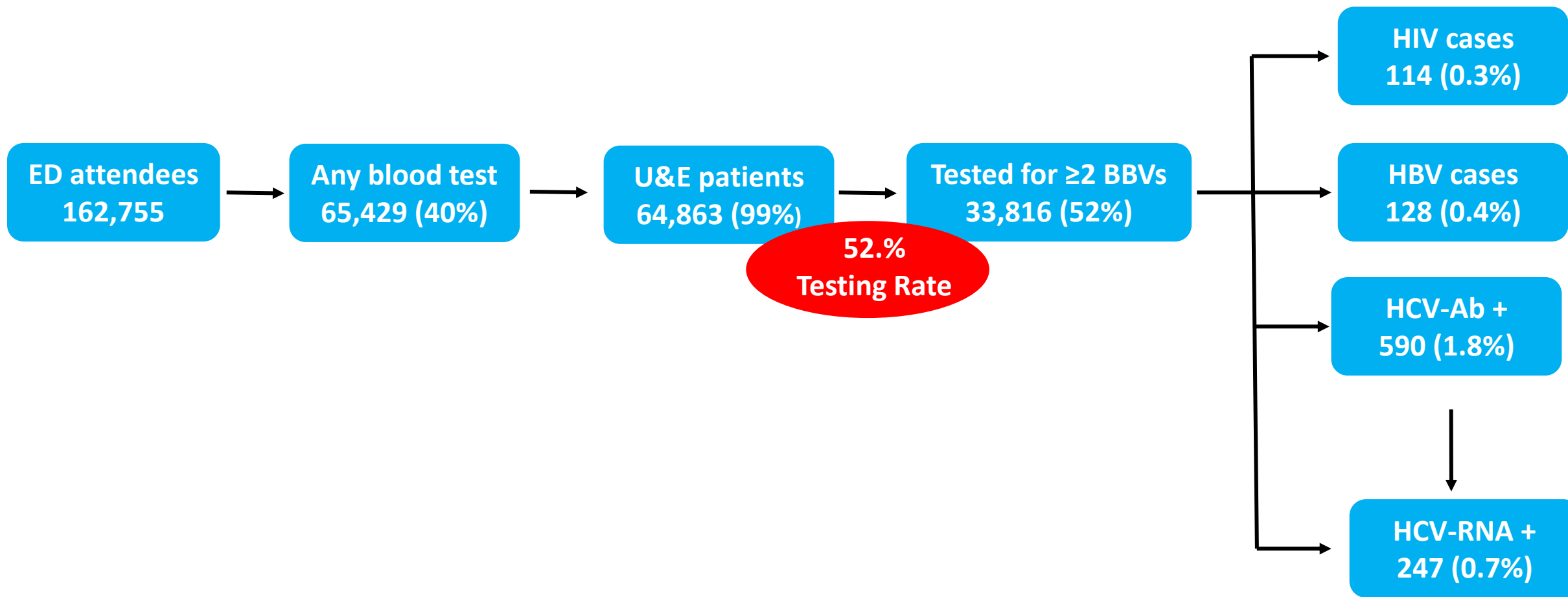
Results (1): Patient flow (02/10/2018-18/03/2020)



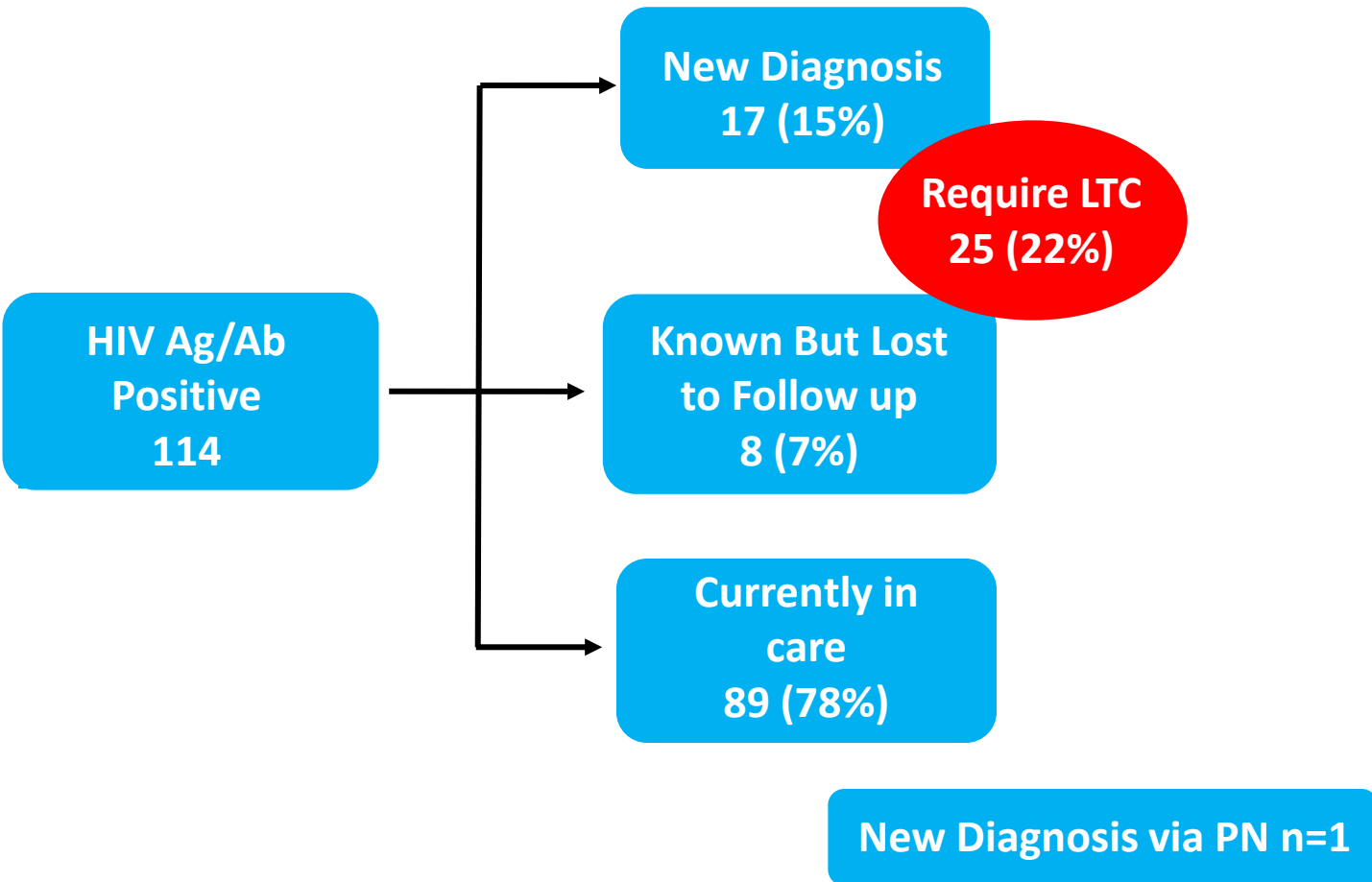
Results (2): Testing rates in the ED



Results (3): Patient flow

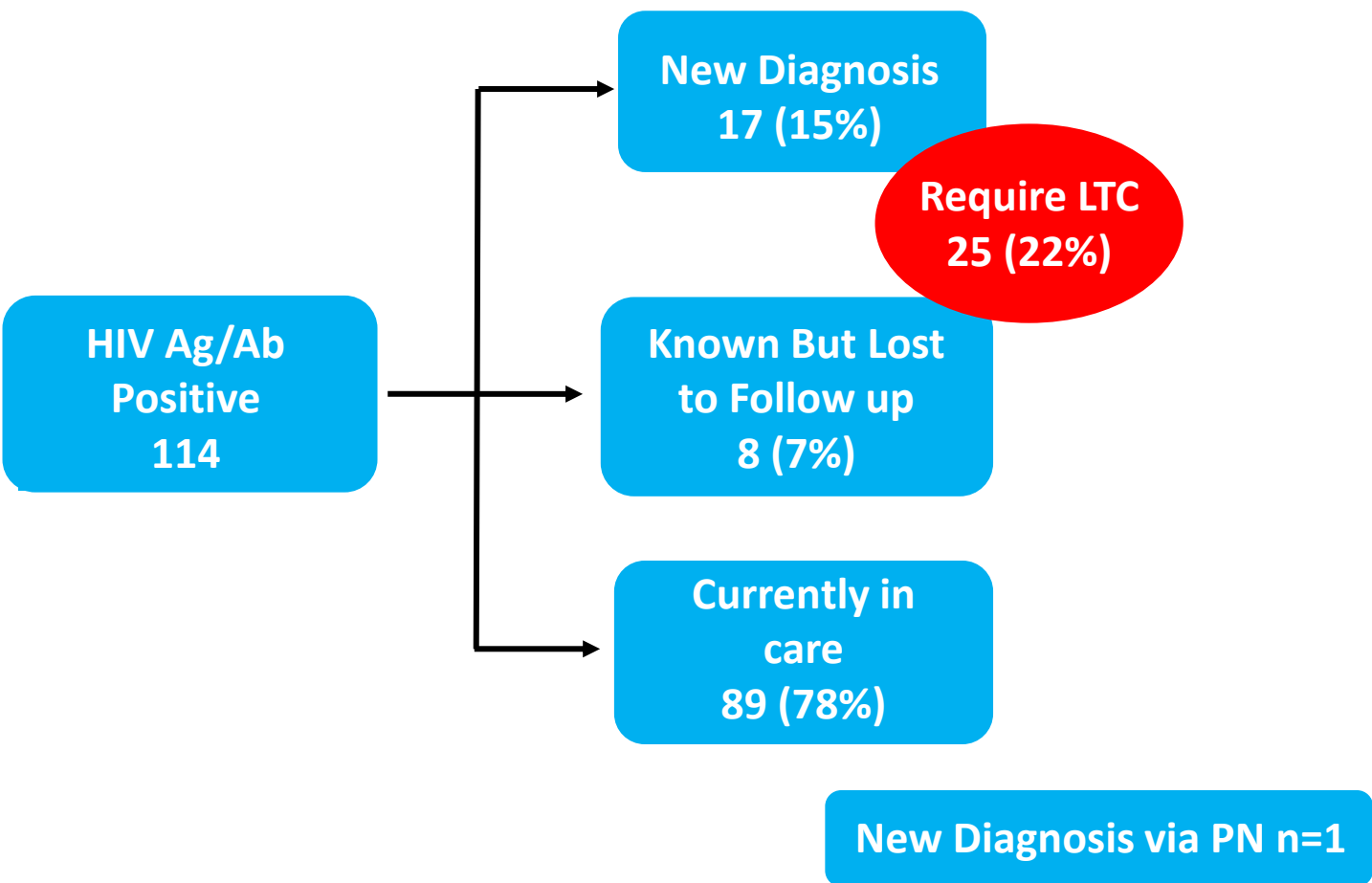


Results (4): HIV



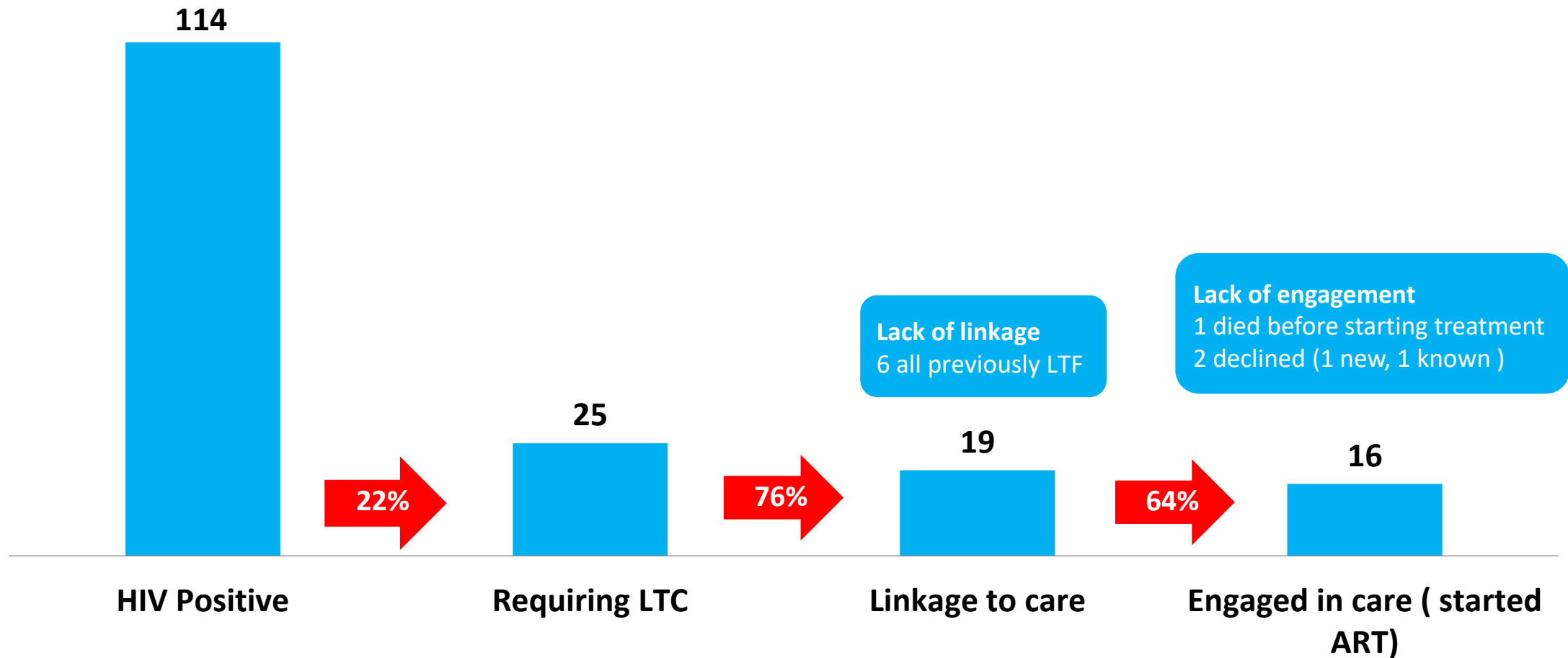
Results (4): HIV

88% Very late or late diagnosis

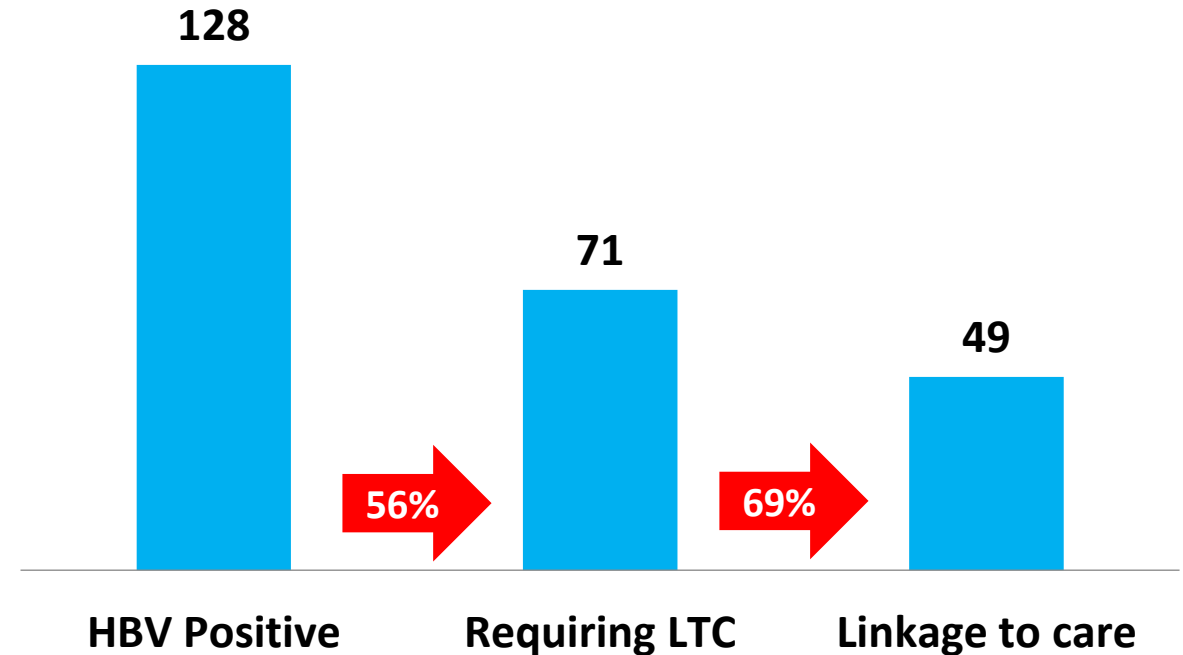
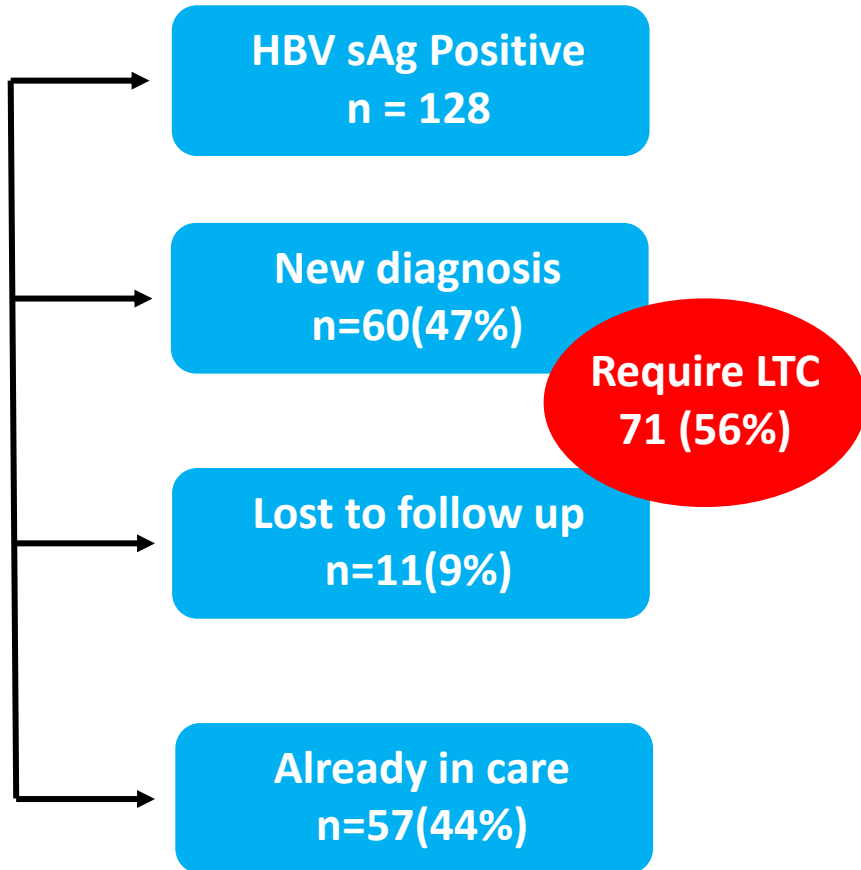


New Diagnosis HIV Cases	
Very Late Diagnosis (CD4 <200)	n= 11 (65%)
Late Diagnosis (CD4 <350)	n= 4 (23%)
CD4 median (range)	270 (1- 539)
Age median (range)	47yrs (16-64)
Male	12 (70%)
Female	5 (30%)
White British	8 (47%)
African	5 (29%)
Other White background	3 (18%)
Black Caribbean	1 (6%)
Heterosexual	9 (53%)
MSM	7 (41%)
Other	1 (6%)

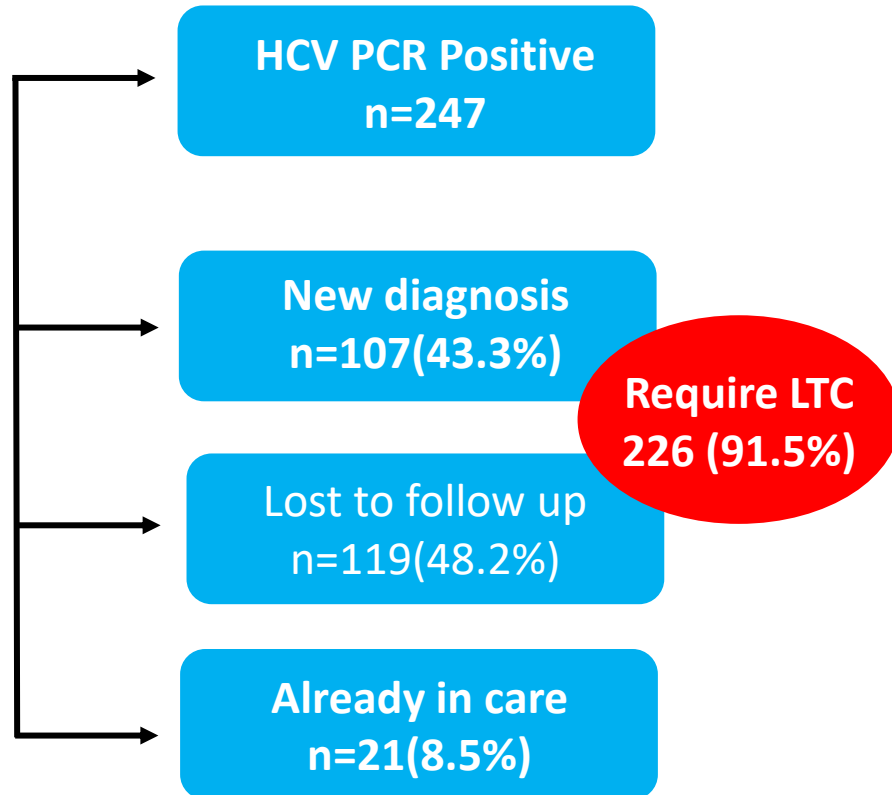
Results (5): HIV Linkage to care cascade



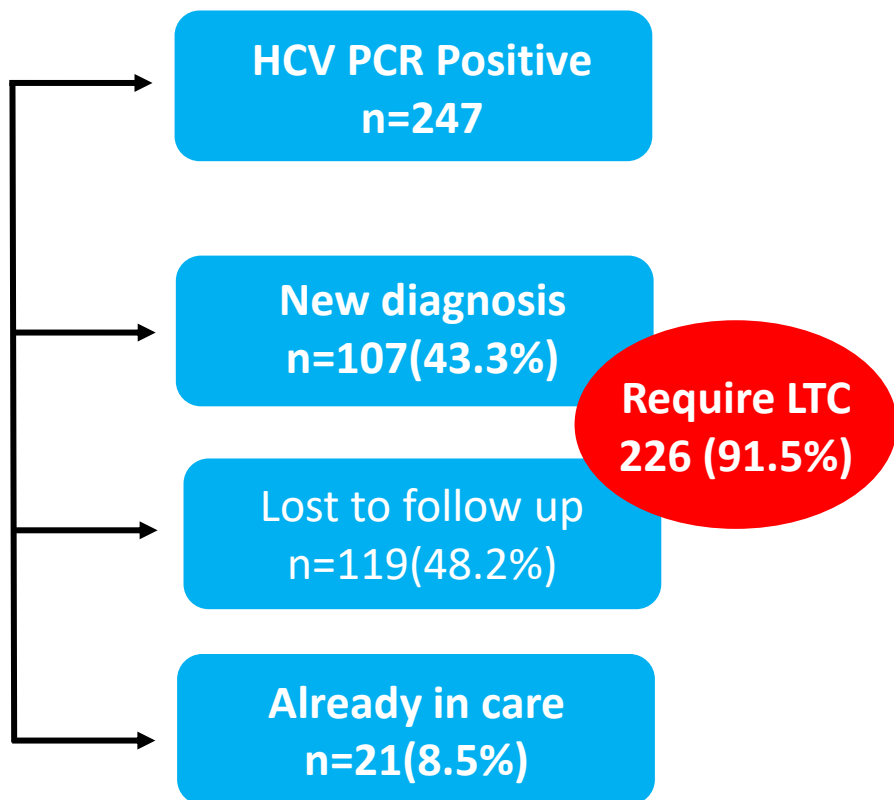
Results (6): HBV Linkage to care cascade



Results (7): HCV

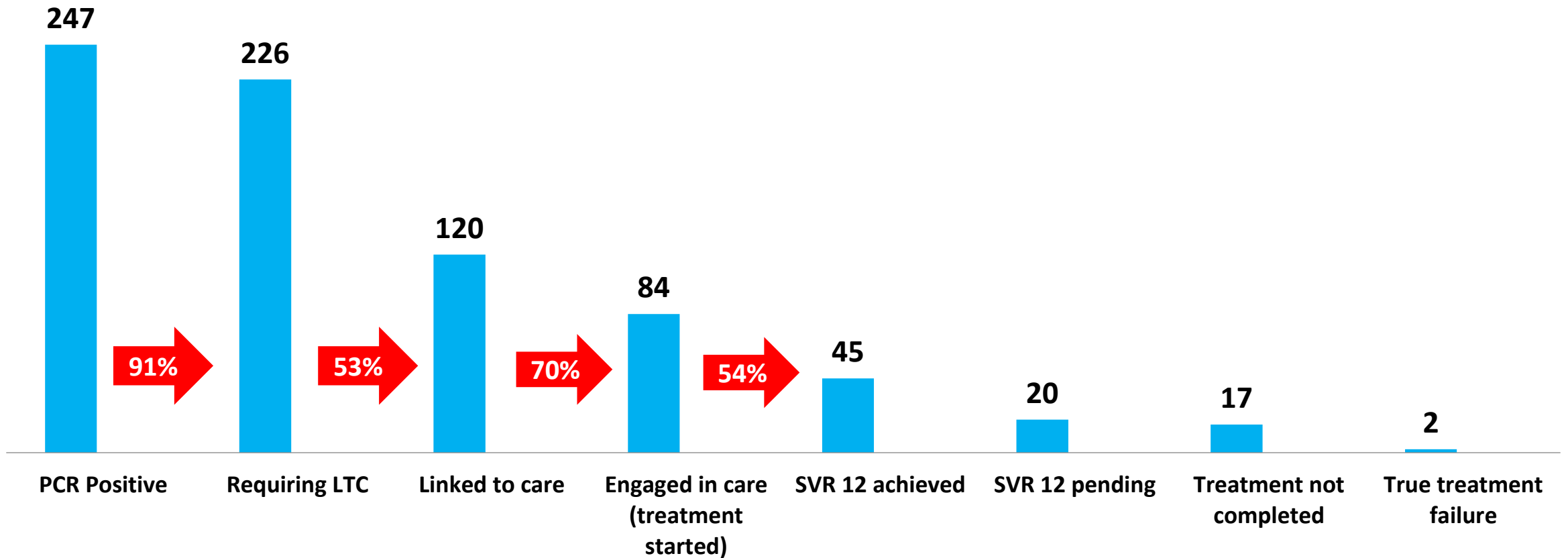


Results (7): HCV



HCV cases requiring LTC	
Male	172 (76%)
Female	54 (24%)
Age (yrs) median (range)	42 (23-71)
White British	201 (89%)
Other White	17 (7.5%)
Black	2 (0.9%)
Asian	6 (2.6%)
Current PWID	129 (57%)
Previous PWID	59 (26%)
Blood transfusion	6 (2.6%)
Area of high prevalence	10 (4.4%)
Others	22 (10%)

Results (8): HCV Linkage to care cascade



Conclusions

Routine BBV testing via 'notional consent' in ED acceptable to attendees

Use of electronic reflex requesting systems effective in increasing testing rates

ED attendees have higher undiagnosed prevalence of BBV than the general population

- 0.07% (vs. 0.02%) have HIV requiring LTC – majority late and very late diagnoses
- 0.67% (vs. 0.13%) have HCV requiring LTC

Integrated BBV linkage to care pathway effective and sustainable

Acknowledgements

- ED Attendees who consented to testing
- ED staff and clinical LTC teams for committing to this service
- Serology BMS who tested the samples
- Pathology LIMS staff who supported data collection
- Get Tested LeEDs steering group
- PHE Yorkshire and Humber for data analysis