

Reduction in the population prevalence of chronic HCV among people who inject drugs associated with major scale-up of DAA therapy in community drug services: real world data

Dr Norah Palmateer

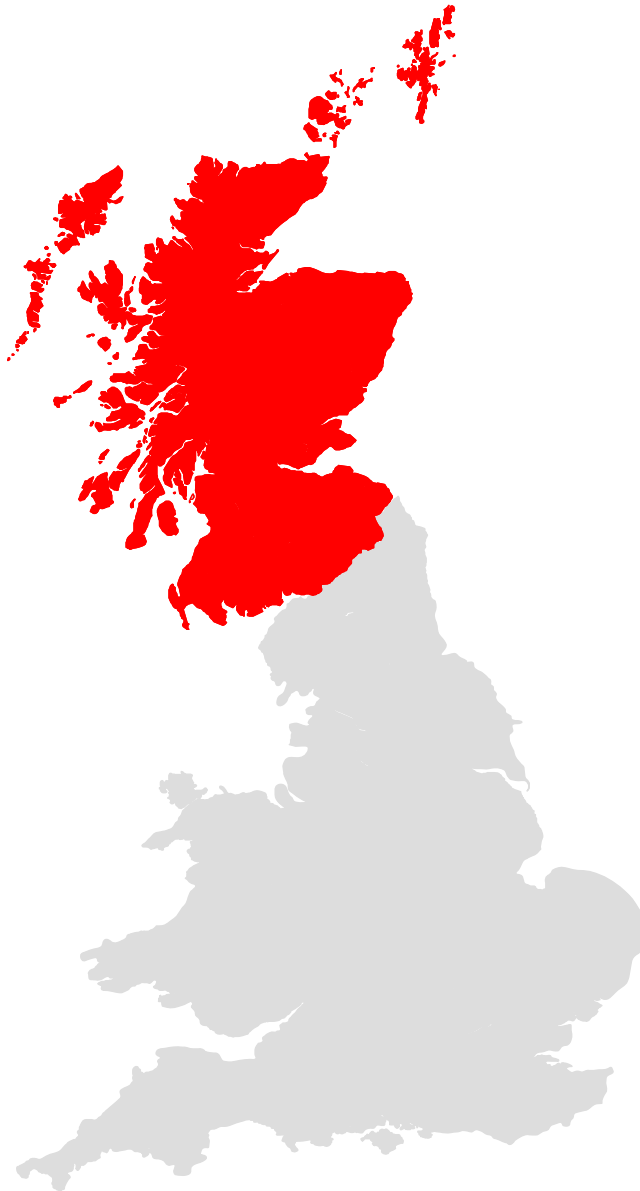
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DRNS
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Context: Scotland



| | |
|--|--|
| General population | 5 million |
| Chronic HCV population | 21,000 in 2018 (0.5% prevalence) |
| % related to injecting drug use | ~90% |
| PWID population | 15,000-20,000 |
| % with anti-HCV | ~60% |

Scottish Government Policy

2008- 2014

- Government invested Hepatitis C Action Plan
- **Treatment Targets:** 500 per year in 2008/09, rising to ~1250 by 2014/15

2015-2018

- **Treatment Targets :** 1500 per year
- Prioritisation based on disease stage (lifted in 2018)
- Aim to deliver therapy for most infected people in community settings (includes prisons)

2019-2024

- **Elimination strategy:** ≤5000 chronically infected people by 2024
- **Treatment Targets:** Average of 3,000 people each year from 2020



Evaluation of rapid major scale-up of DAAs among PWID: the EPITOPe study

NHS Tayside – the intervention site:

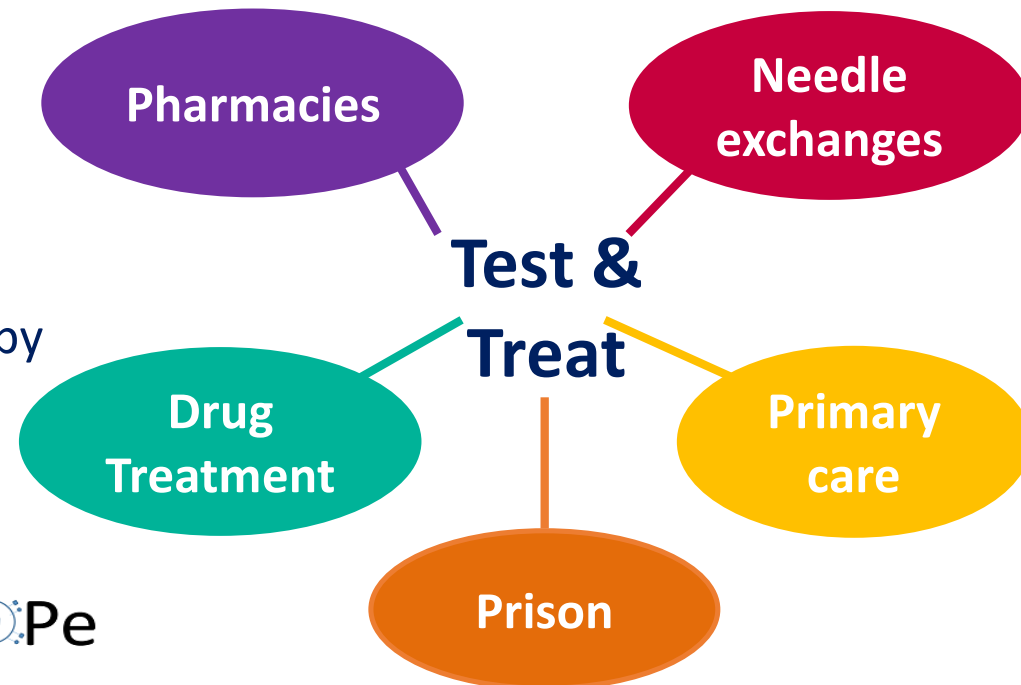
- Rapid & major scale-up of DAAs among PWID (500 over 2-3 years from 2017)
- Aim to reduce chronic HCV prevalence among PWID from 30% to <10%
- Testing (by services) & treatment (by nurses & pharmacists) in multiple community settings

NHS Tayside

Popln: 400,000

PWID: 2,700

(800 with chronic HCV)



Early scale-up of HCV therapies among PWID in Tayside

eradi^{HEP}cate

- Testing and treatment of PWID in needle exchange
- ~100 PWID treated during **2012 - 2016**



- Testing and treatment of PWID on opioid substitution therapy (OST) in pharmacies
- 100 PWID treated during **2016-2018**

NHS Tayside

Popln: 400,000

PWID: 2,700

(800 with chronic HCV)



Research question

- What is the early impact of the scale up of DAAs on the population prevalence of chronic HCV among PWID?



Evaluate using data from the
Needle Exchange Surveillance
Initiative (NESI)

NESI: Background

- A bio-behavioural survey of people who inject drugs (PWID) - questionnaire & dried blood spot (DBS)

Setting:

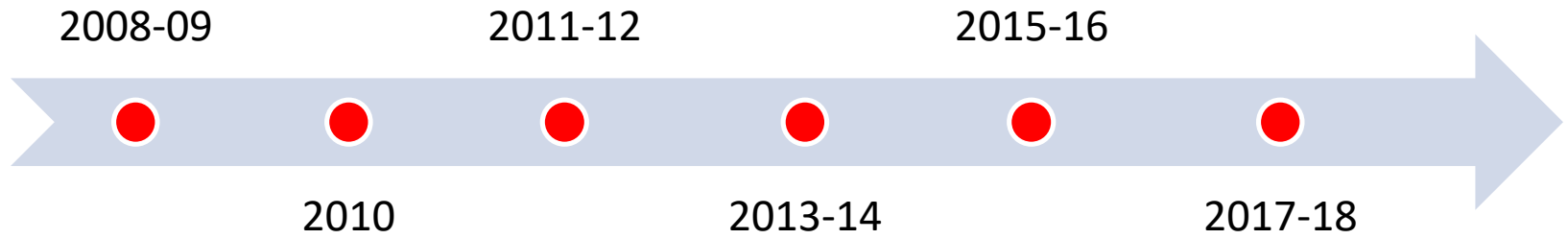
- Services that provide sterile injecting equipment across Scotland (mainland NHS Boards)

Eligibility:

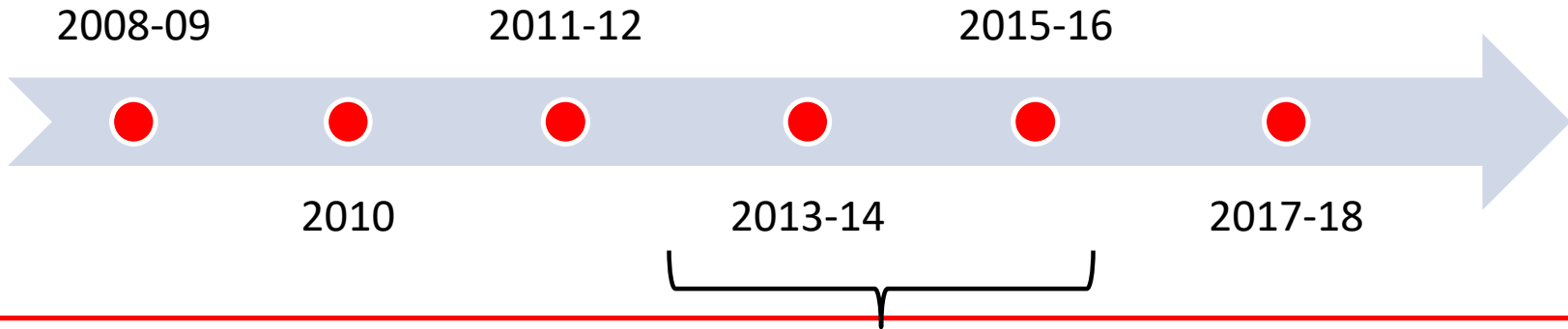
- Ever injected drugs (70-80% injected in the last 6 months)

Recruits between 2,000-2,500 participants per sweep (equivalent to ~10% of the population of PWID in Scotland)

NESI sweeps



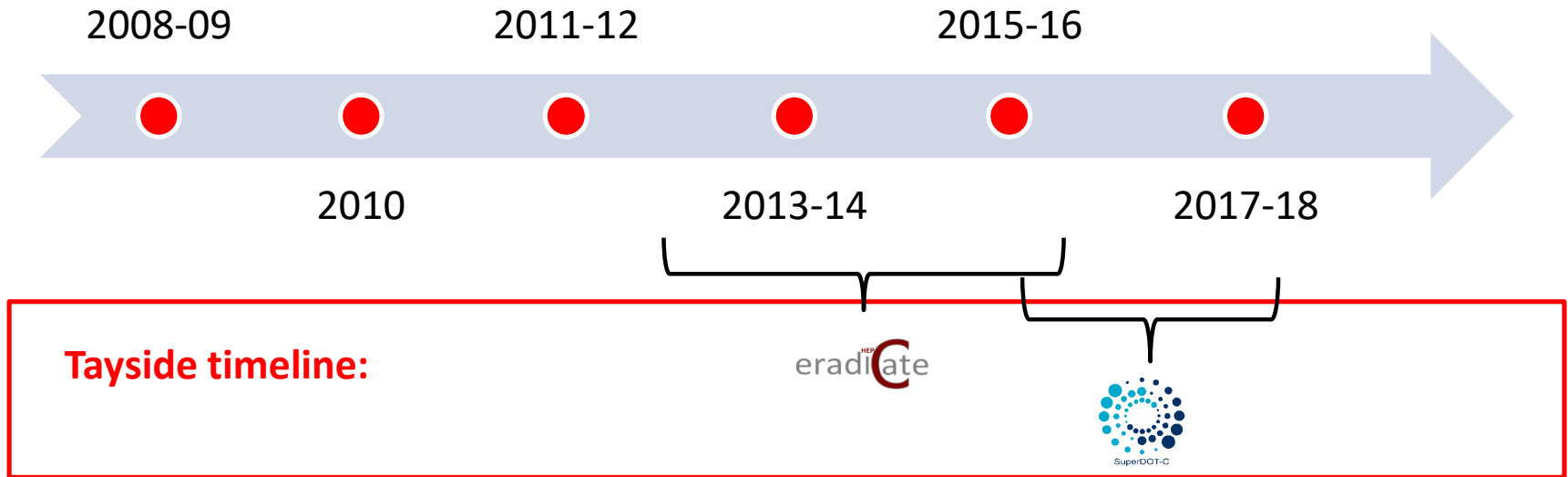
NESI sweeps



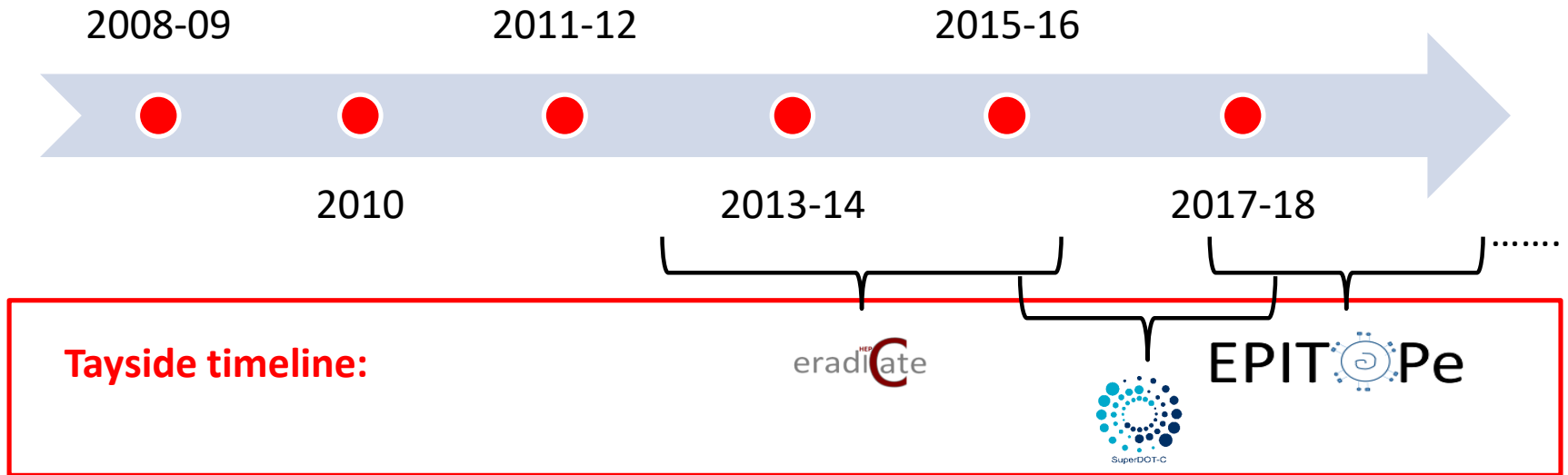
Tayside timeline:

eradicate

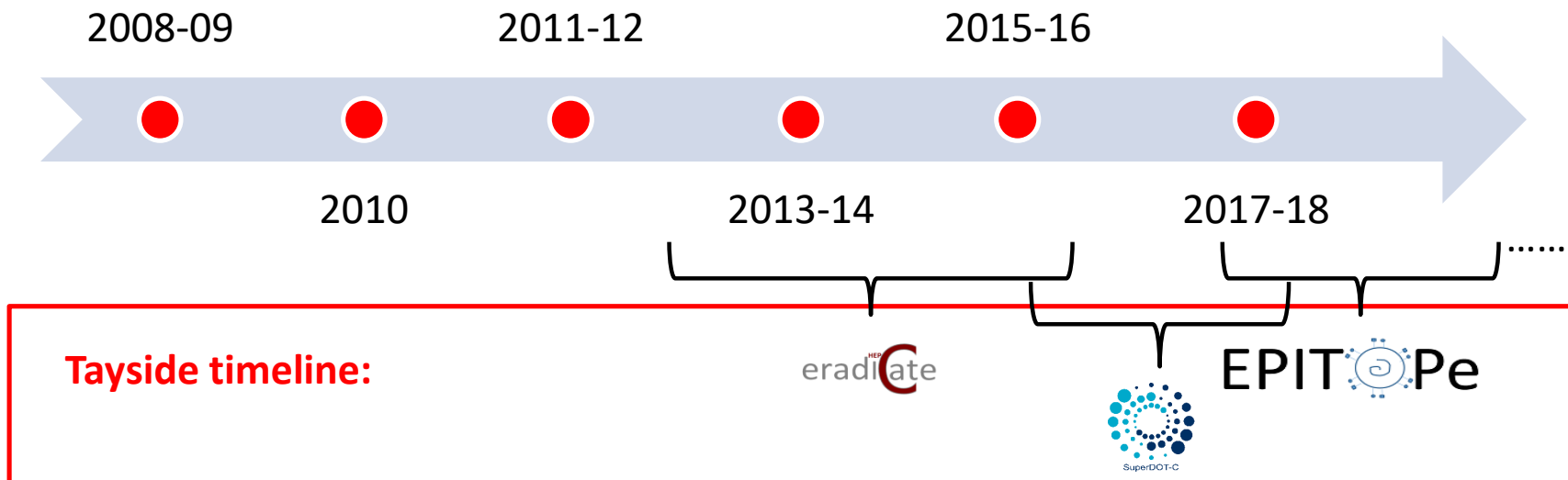
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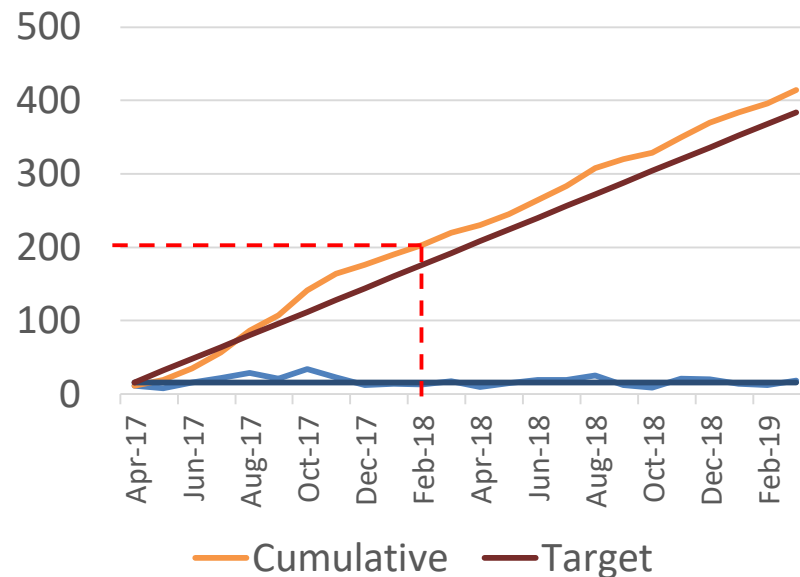
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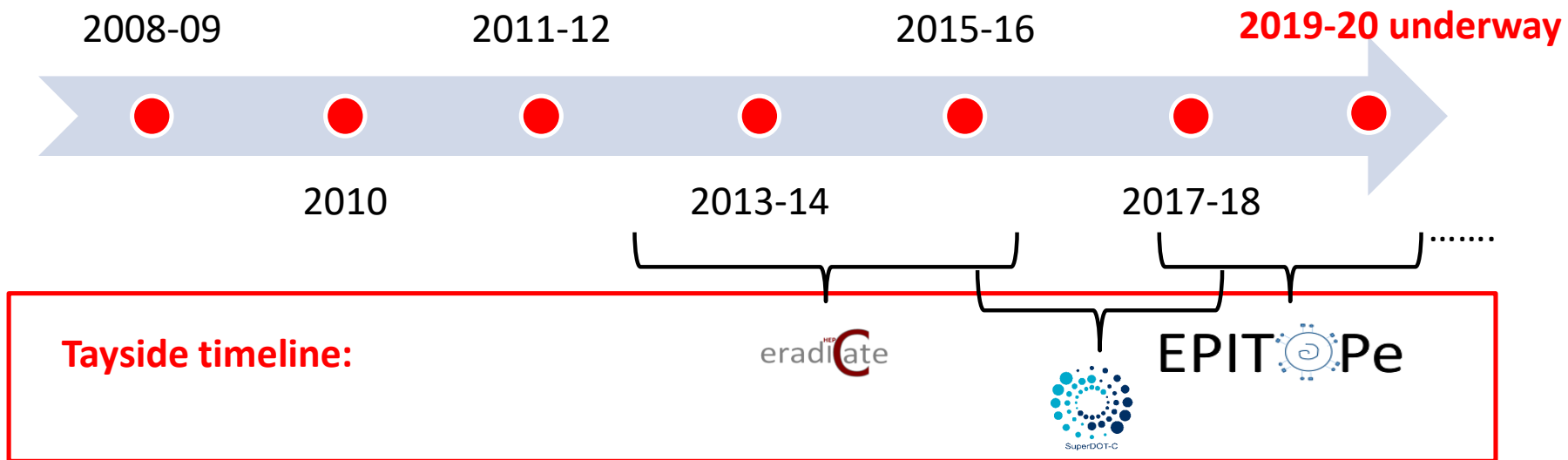
NESI sweeps



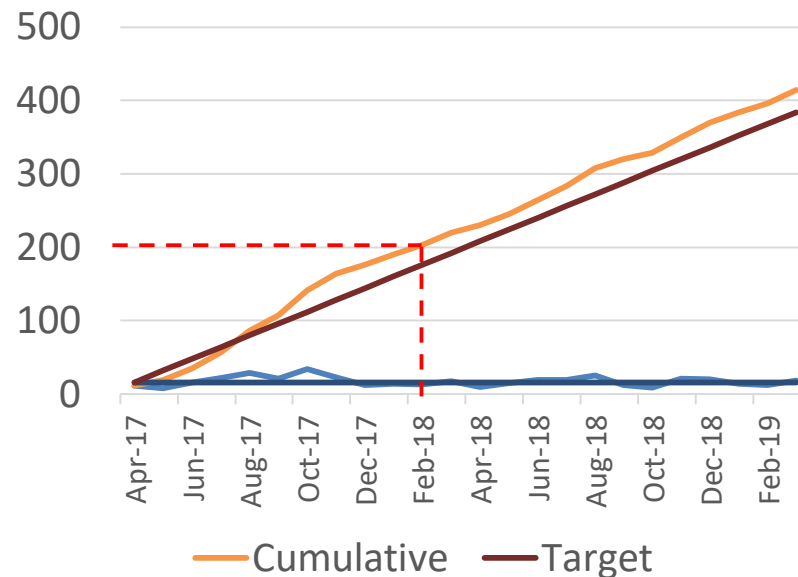
Approximately 40% of overall Epitope treatment target achieved in Tayside by the end of recruitment in the 2017-18 NESI sweep



NESI sweeps



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Participants & demographics

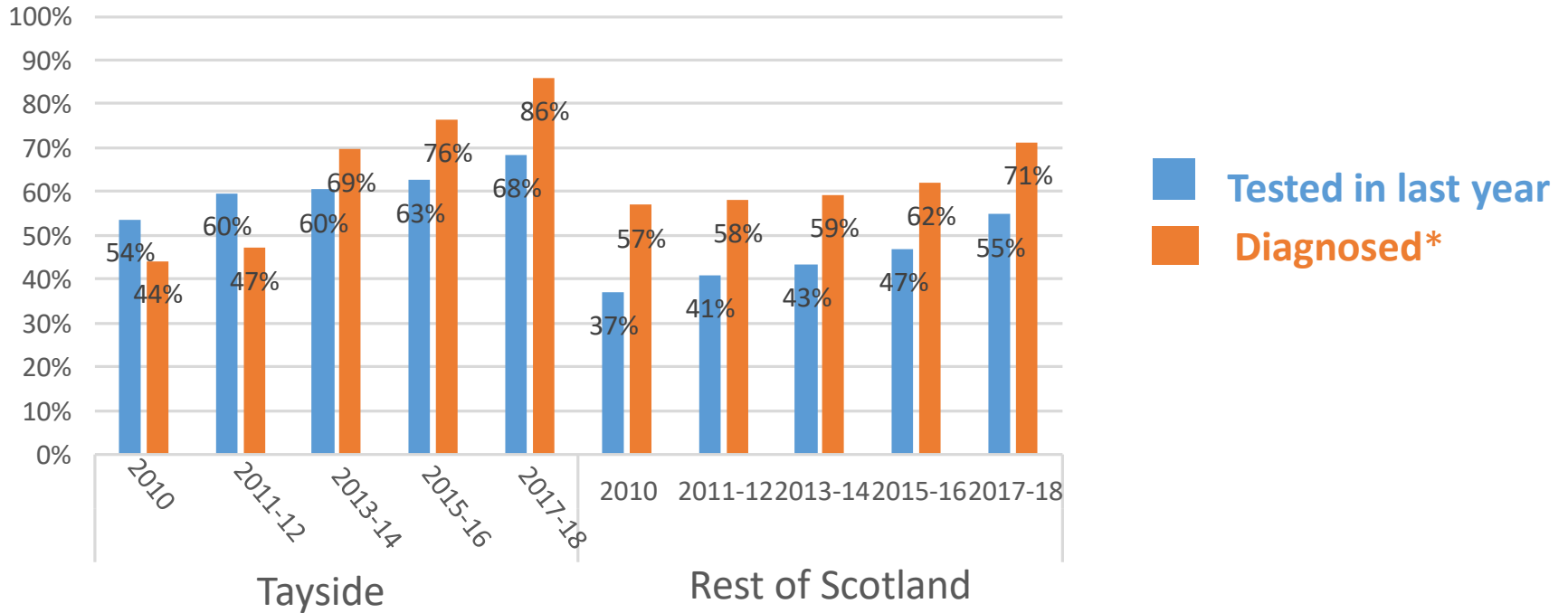
| | 2010 | 2011-12 | 2013-14 | 2015-16 | 2017-18 |
|---|---------------|---------------|---------------|---------------|---------------|
| | N=3168 | N=2154 | N=2344 | N=2696 | N=2130 |
| % Male | 72% | 72% | 69% | 71% | 73% |
| Age (Mean) | 34.5 | 35.3 | 36.8 | 38.2 | 40.6 |
| Time since onset of injecting (Mean) | 11.1 | 11.6 | 13.2 | 14.4 | 16.6 |
| % Current injectors¹ | 78% | 84% | 83% | 82% | 69% |
| % Injected cocaine^{2,3} | 10% | 11% | 12% | 15% | 31% |
| % Homeless² | 22% | 21% | 25% | 22% | 23% |
| % on OST² | 80% | 81% | 73% | 78% | 80% |
| % with 100% NSP coverage^{2,3} | 78% | 77% | 84% | 71% | 77% |
| HCV antibody prevalence | 54% | 56% | 57% | 57% | 57% |

¹injected in last 6 months

²in the last 6 months

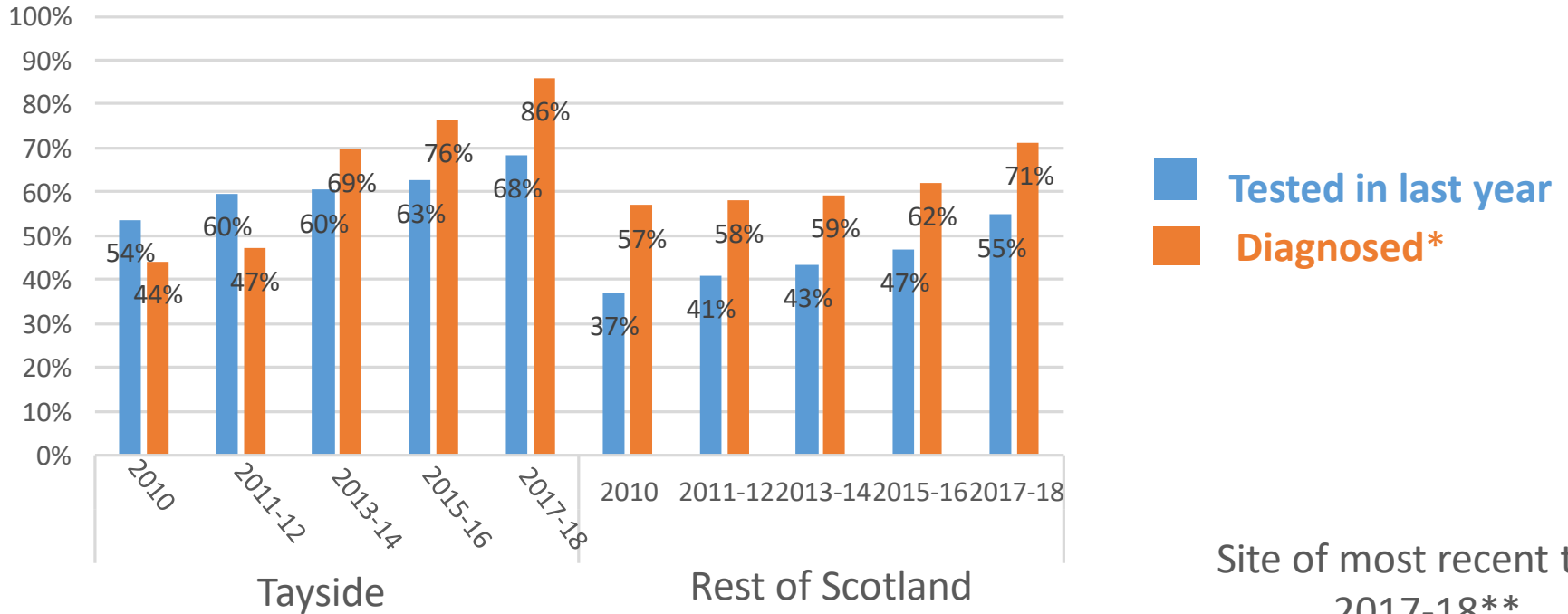
³among those who reported injecting in the last six months

HCV testing and diagnosis, 2010 to 2017-18

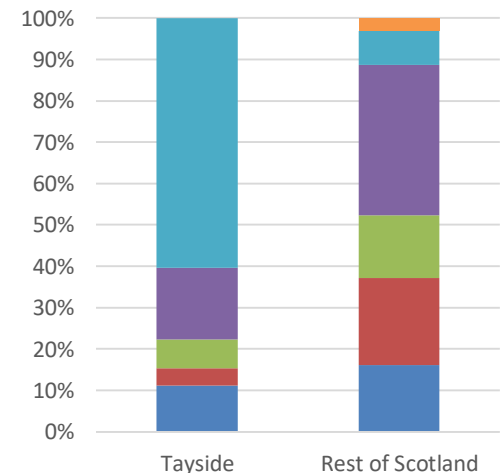
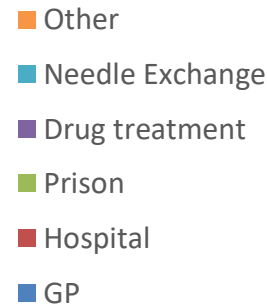


*those who were self-reported HCV positive among Ab+ves on DBS

HCV testing and diagnosis, 2010 to 2017-18



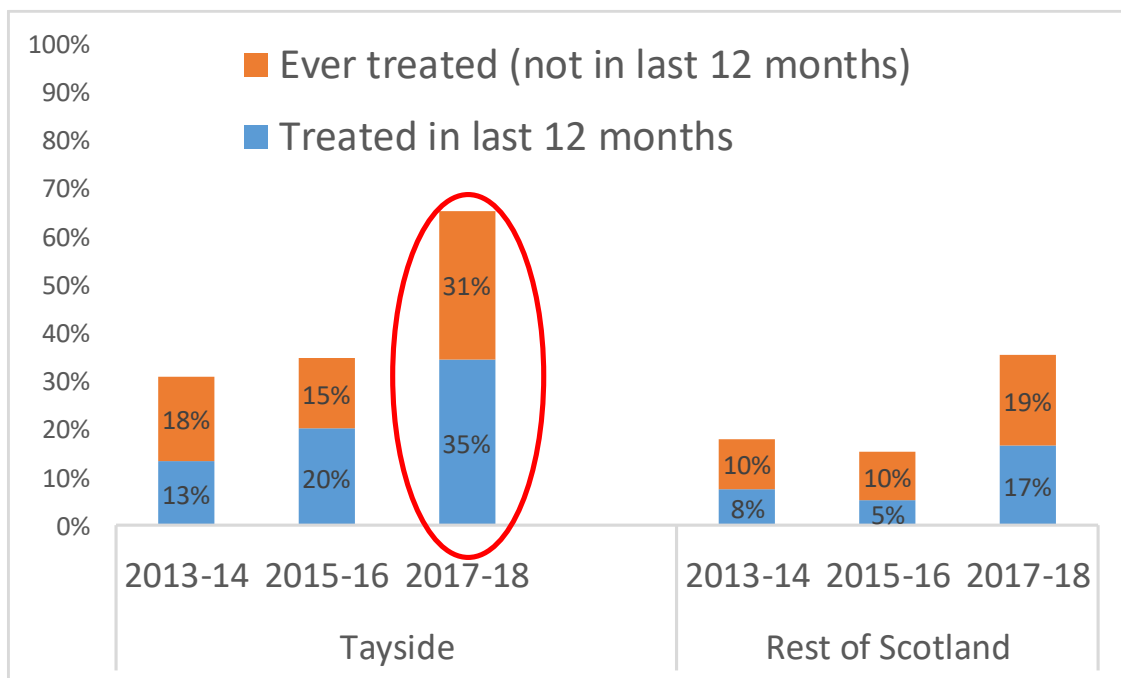
Site of most recent test, 2017-18**



*those who were self-reported HCV positive among Ab+ves on DBS

**among those who had been tested in the last year

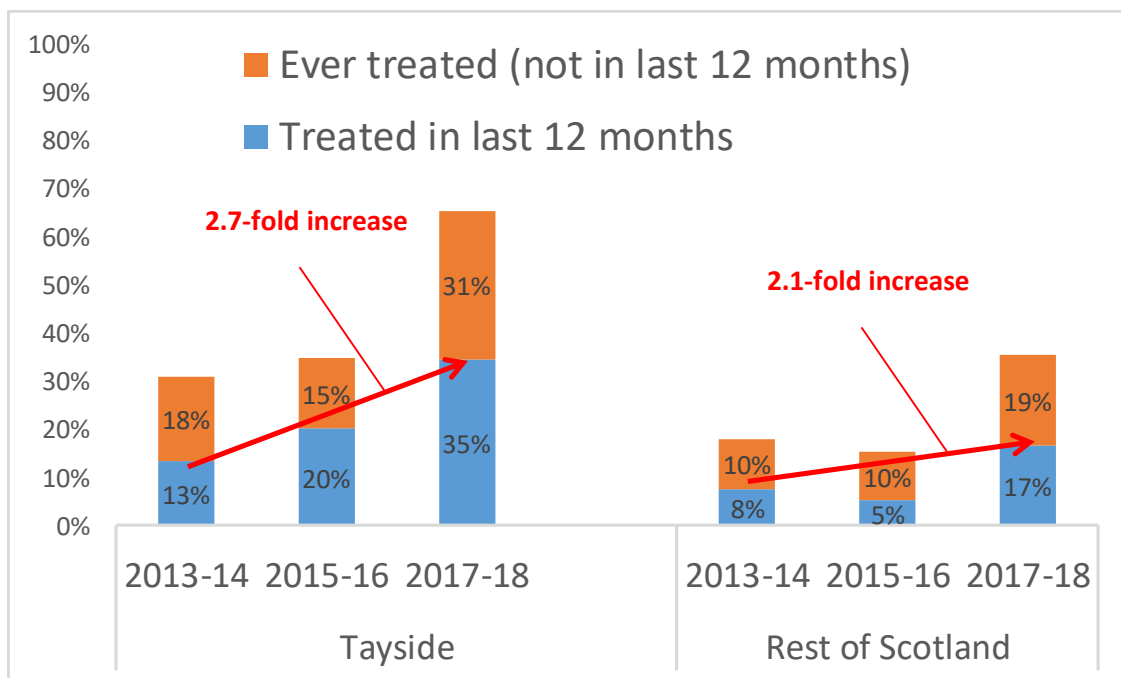
HCV therapy uptake*, 2013-14 to 2017-18



- 66% ever treated in Tayside

*among those who were eligible for therapy

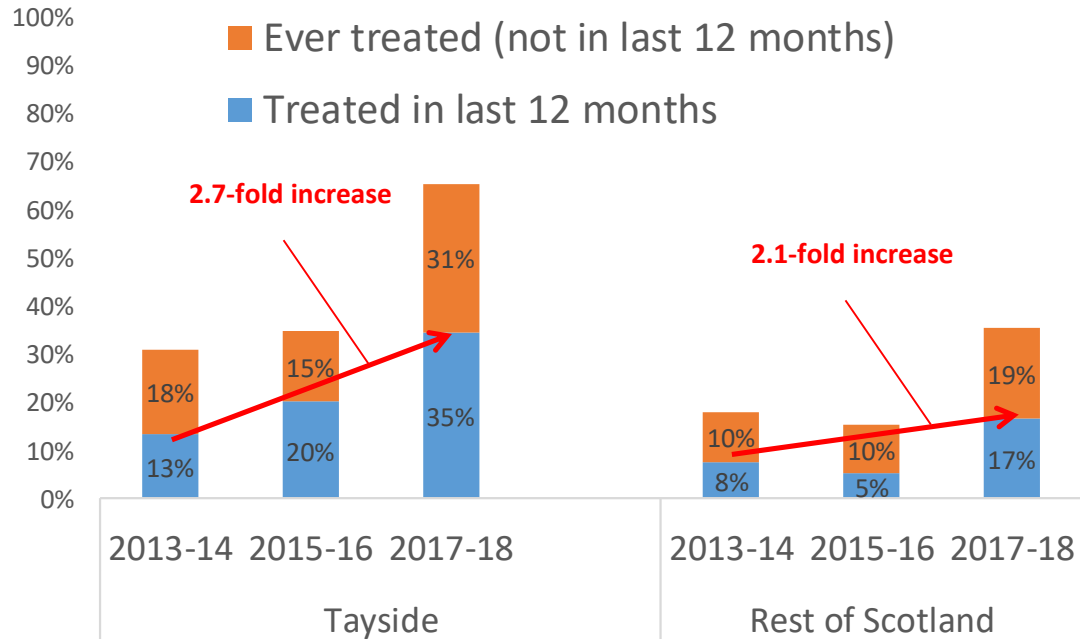
HCV therapy uptake*, 2013-14 to 2017-18



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- Increase in recent treatment (last 12 months) seen across Scotland but larger in Tayside

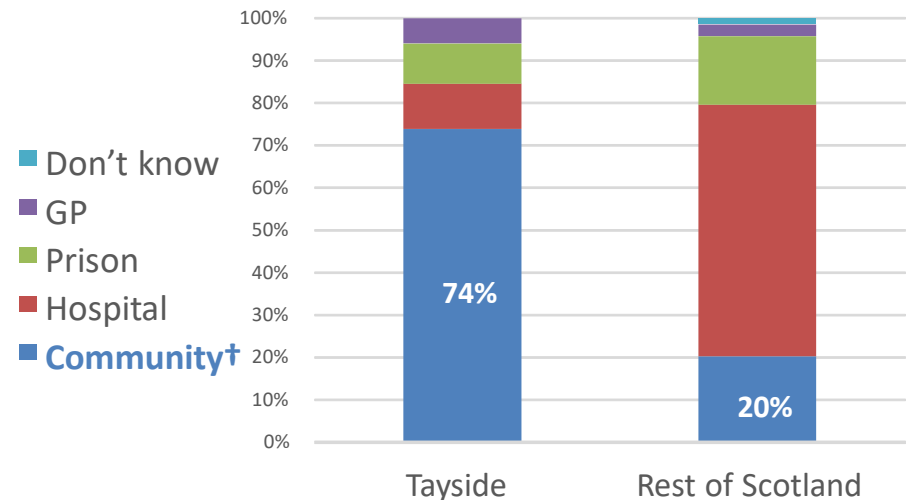
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HCV therapy uptake*, 2013-14 to 2017-18



- 66% ever treated in Tayside
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Site of therapy initiation, 2017-18**

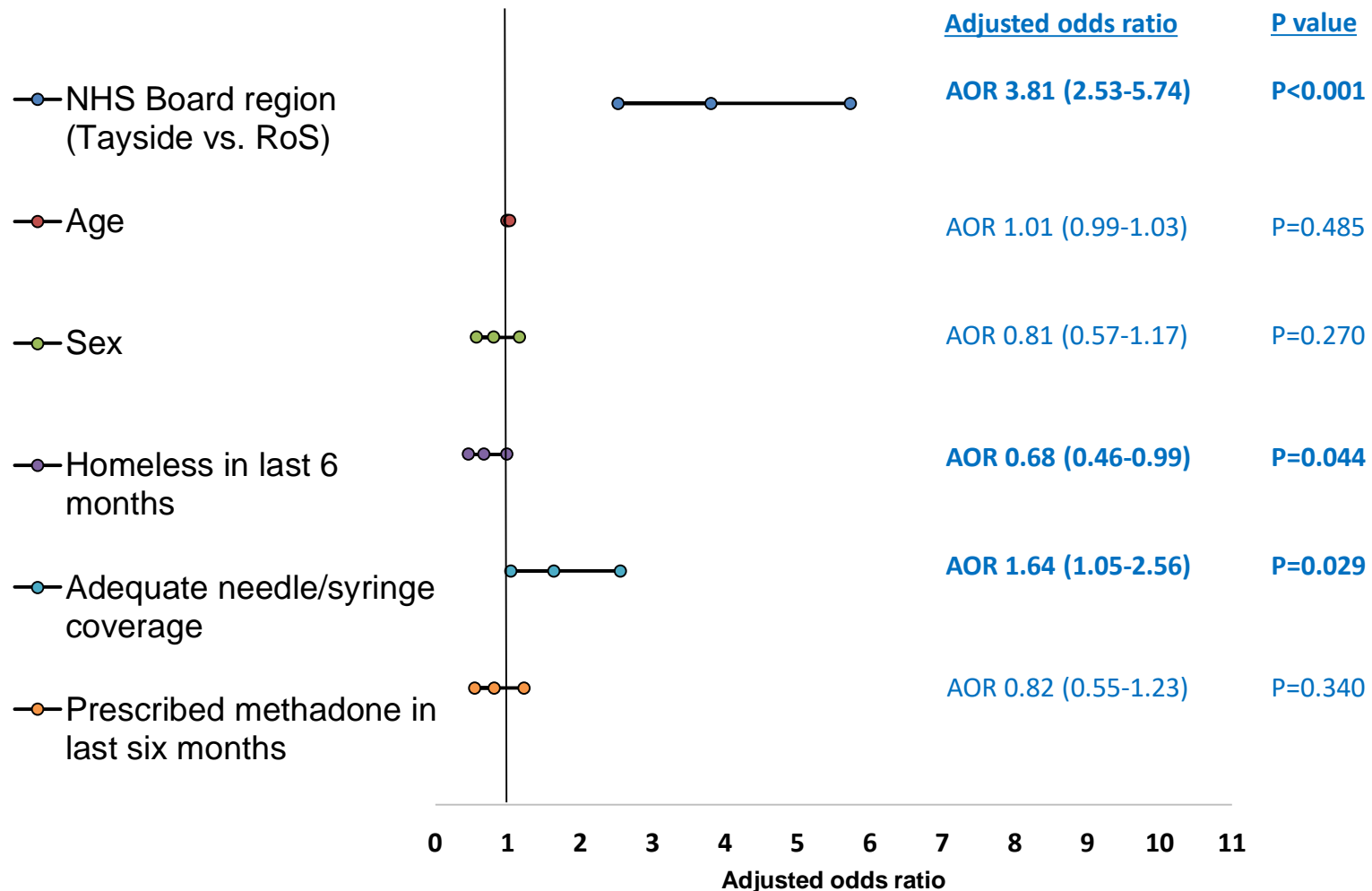


*among those who were eligible for therapy

**of most recent course of therapy

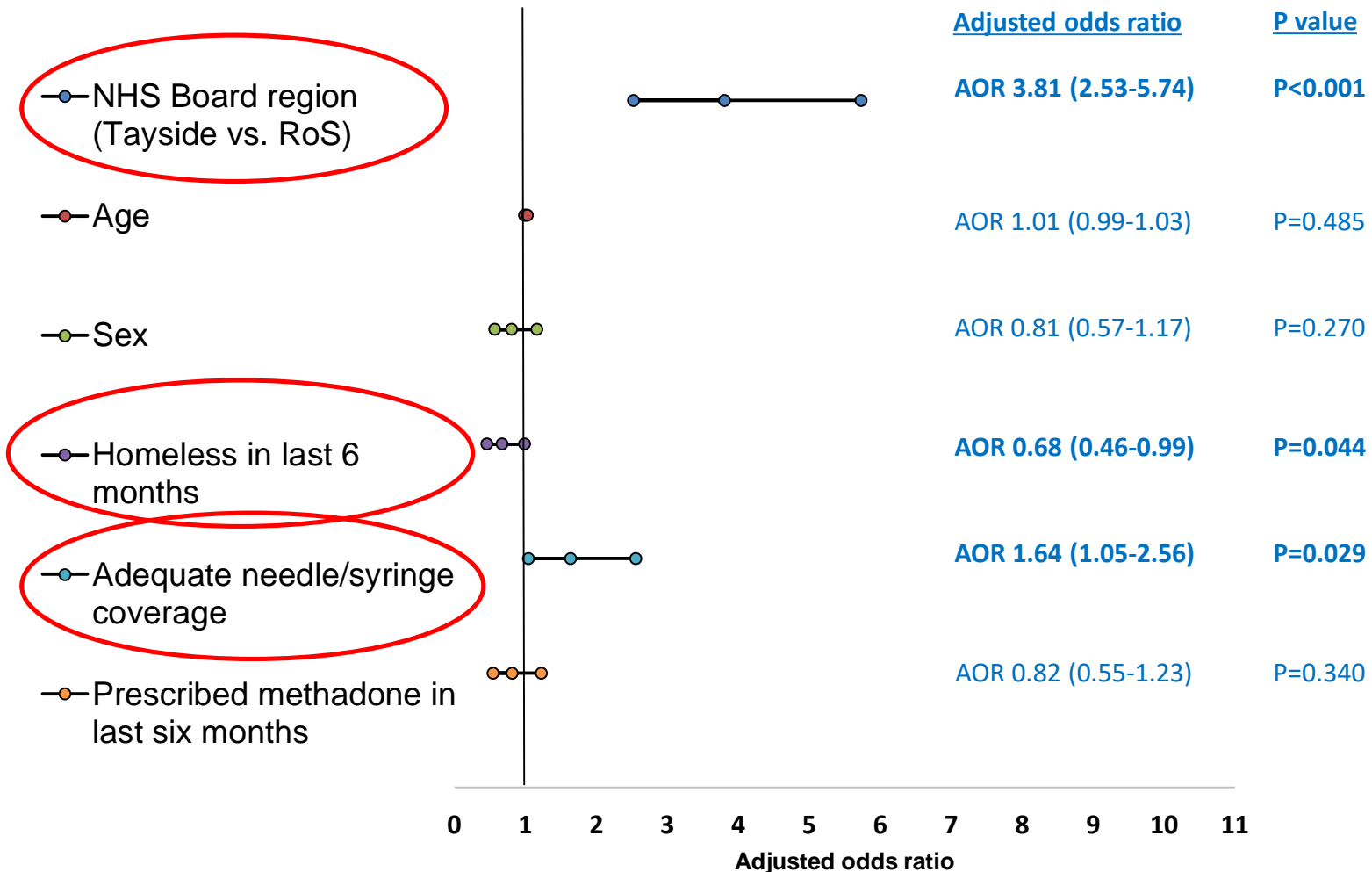
Characteristics associated with recent HCV therapy uptake (NESI 2015-16 & 2017-18)

All Scotland (n=1,547)



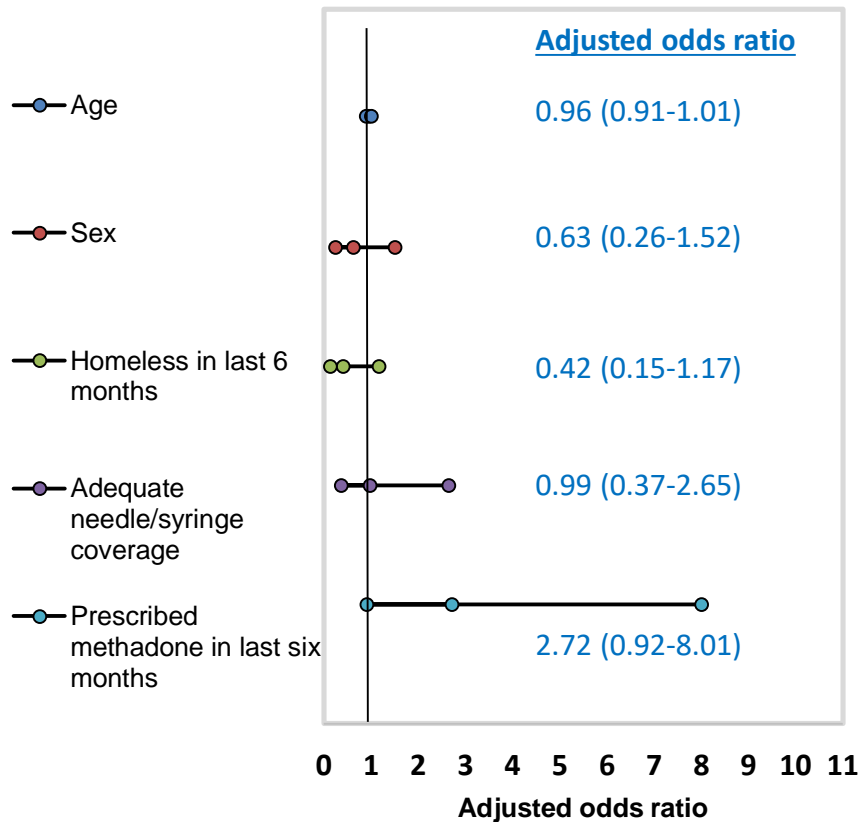
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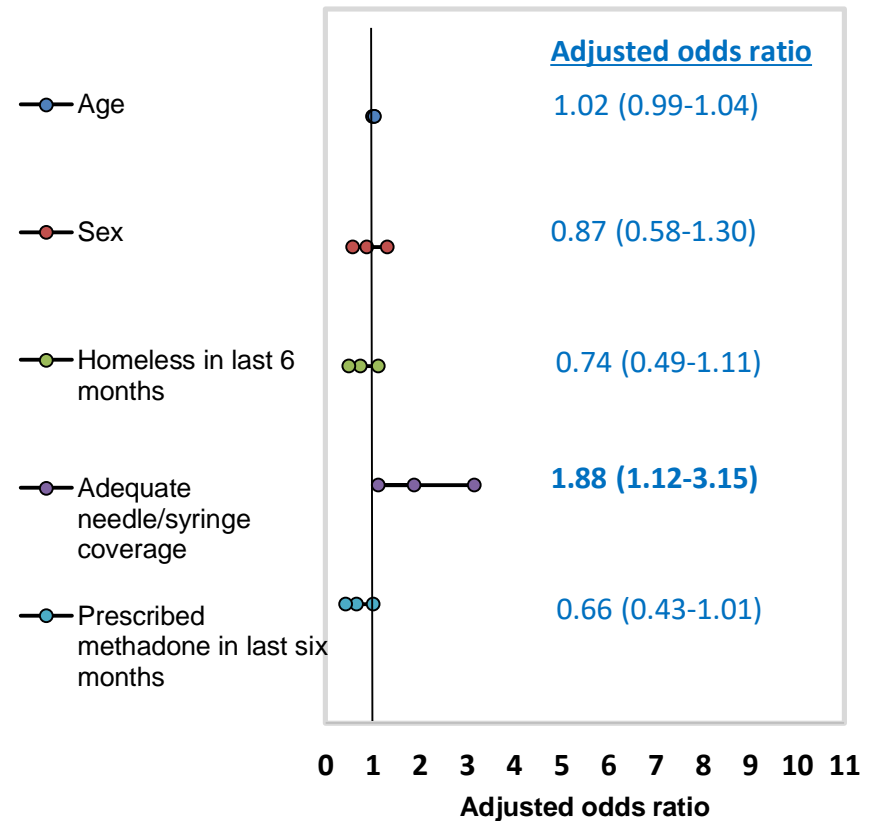


Characteristics associated with recent HCV therapy uptake (NESI 2015-16 & 2017-18)

Tayside (n=132)



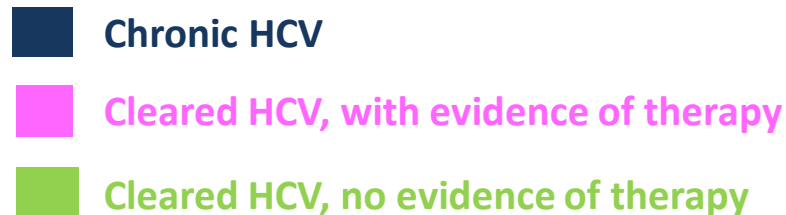
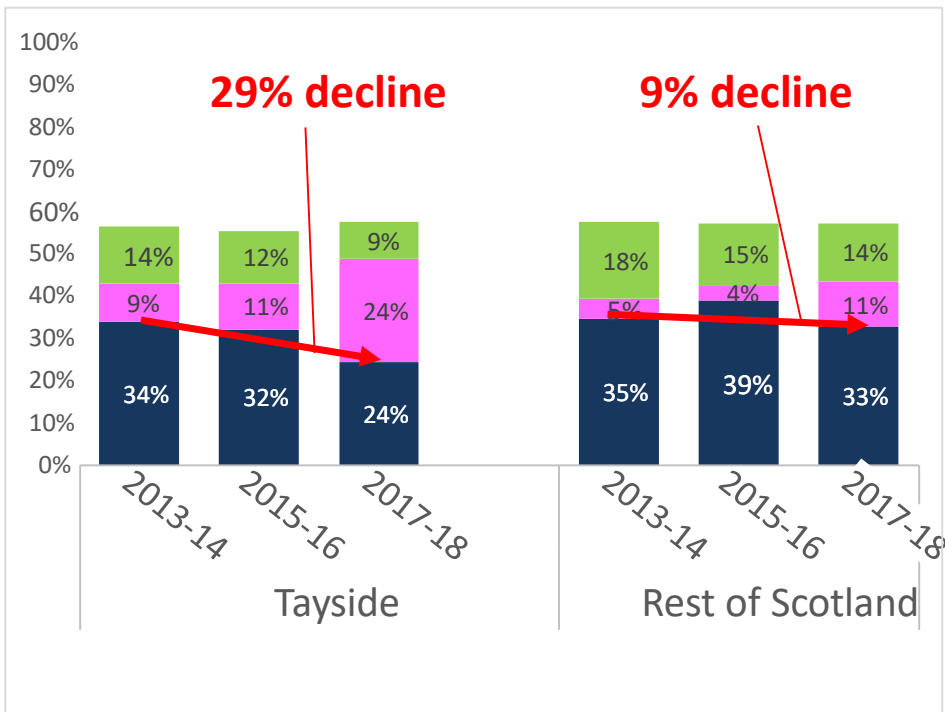
Rest of Scotland (n=1,415)



Estimates of chronic and cleared HCV infection among PWID in Scotland*

(*missing Ab and RNA data have been imputed)

All PWID

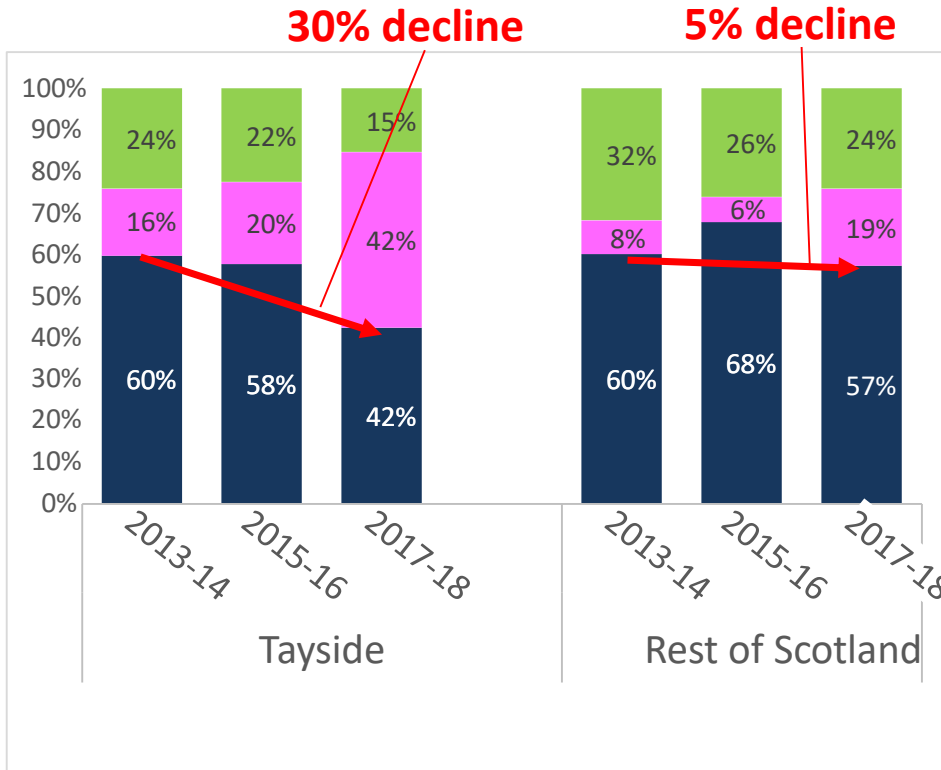
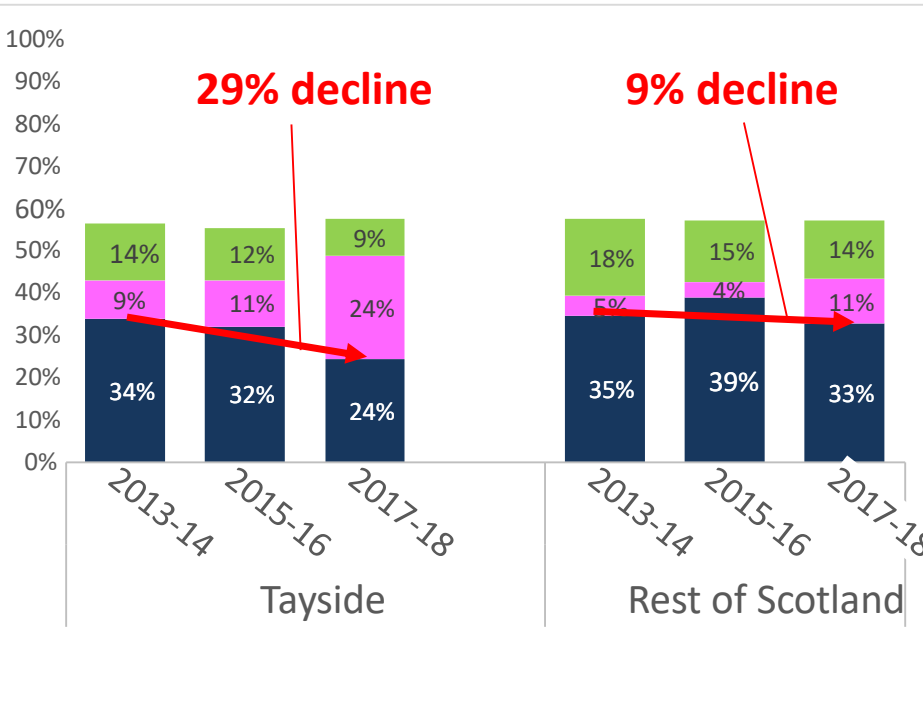


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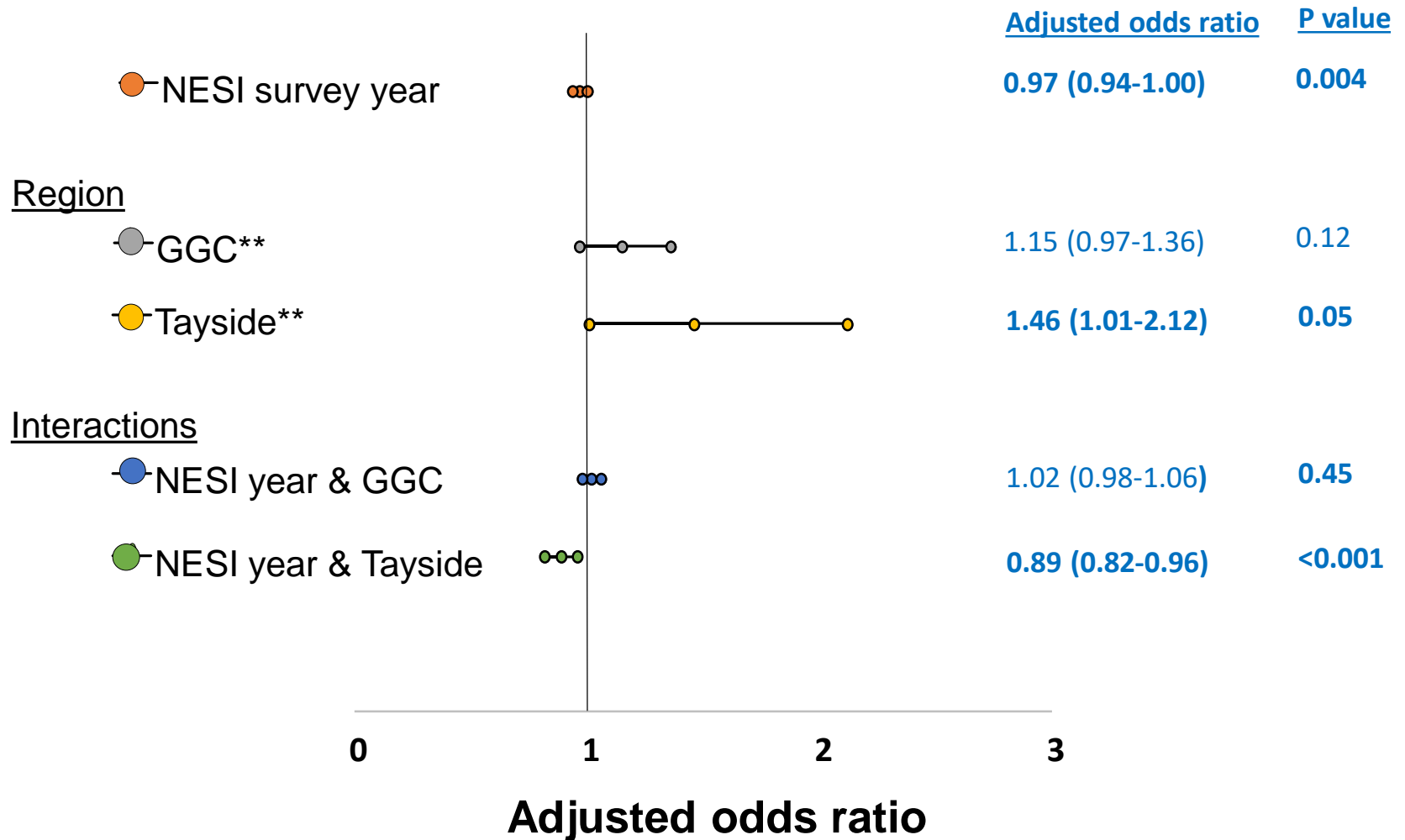
All PWID

Antibody positive PWID



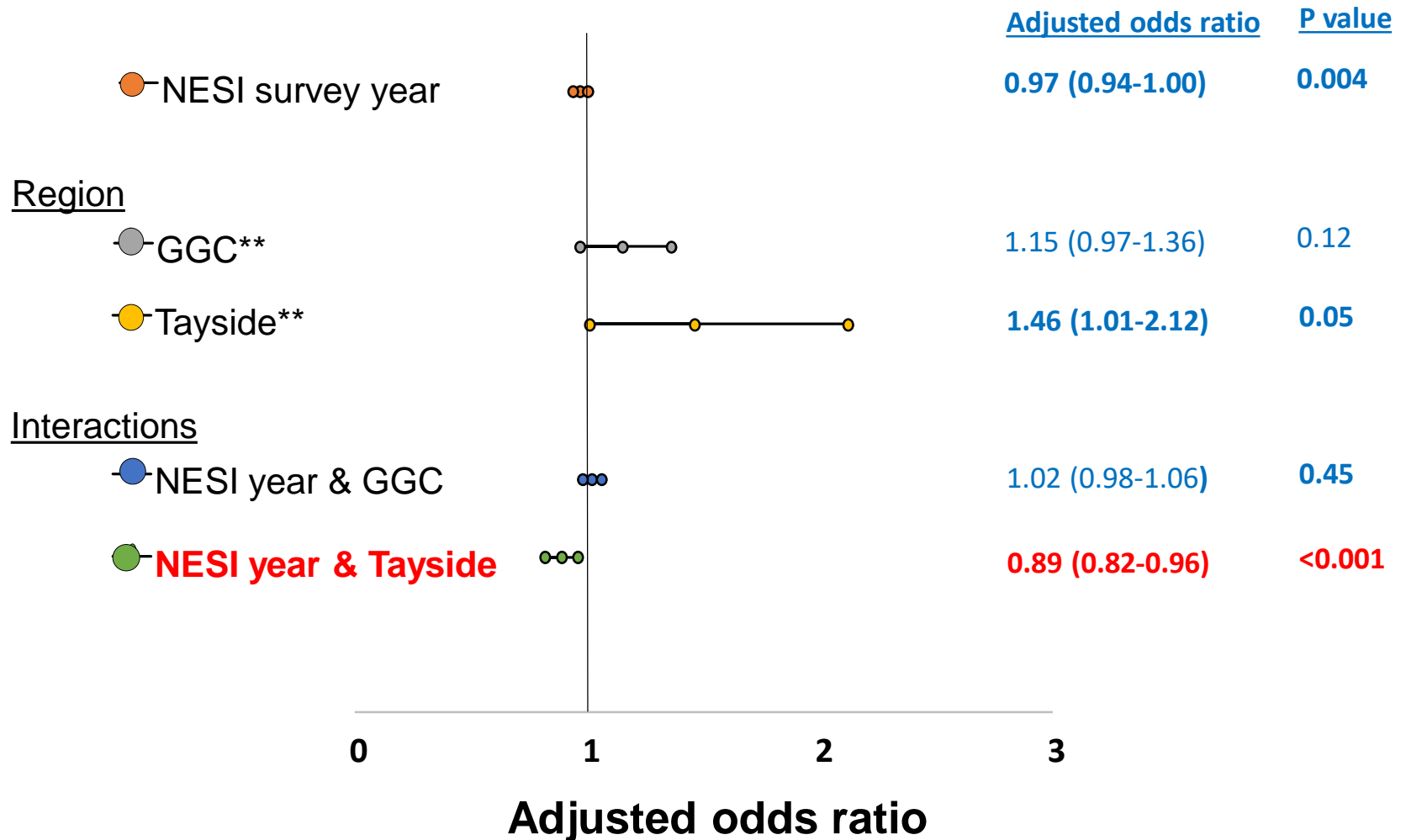
- Chronic HCV**
- Cleared HCV, with evidence of therapy**
- Cleared HCV, no evidence of therapy**

Association between covariates and aggregate chronic HCV prevalence*



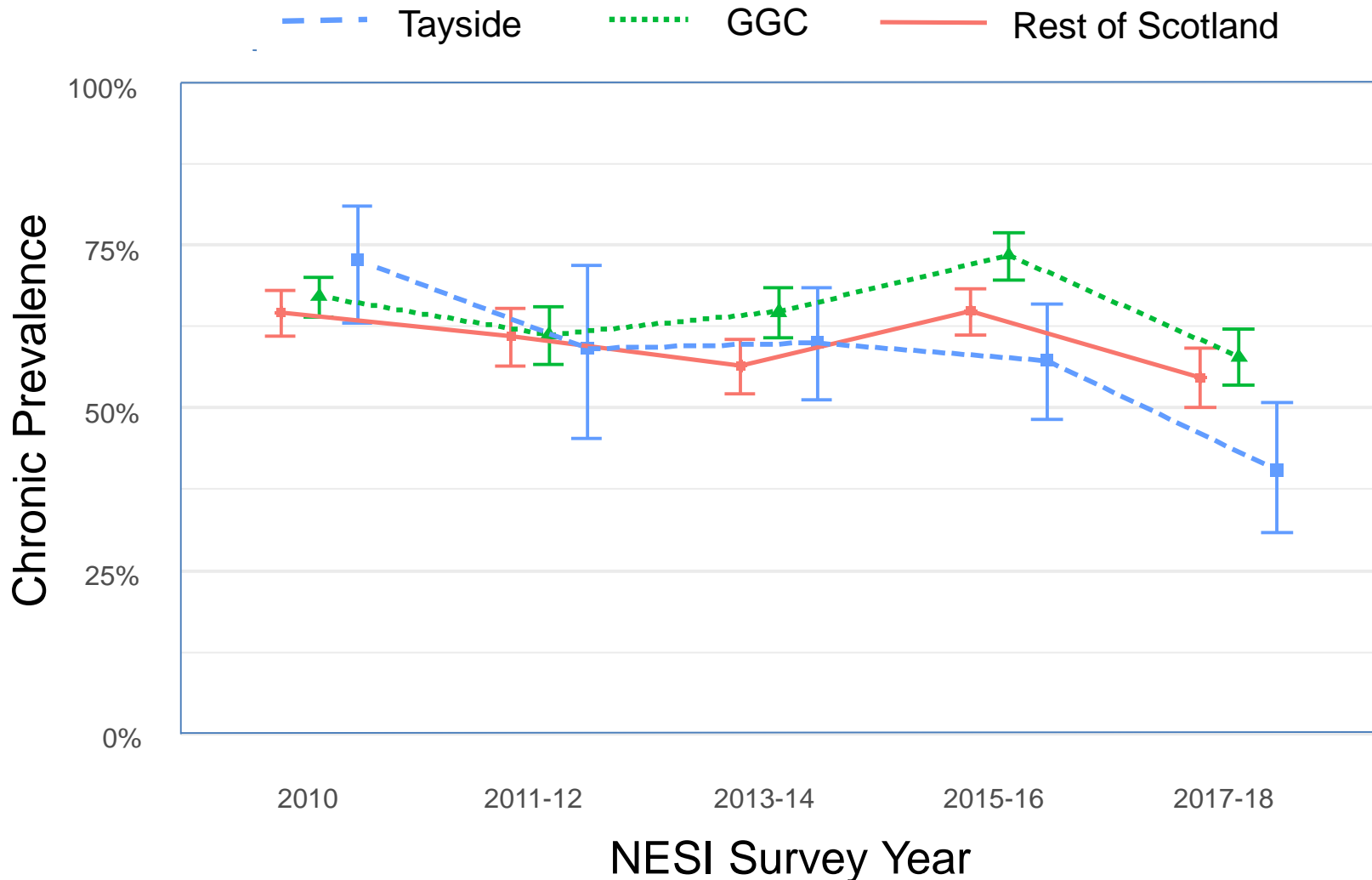
*Among HCV antibody positives; **Compared with the rest of Scotland

Association between covariates and aggregate chronic HCV prevalence*



*Among HCV antibody positives; **Compared with the rest of Scotland; GGC=Greater Glasgow & Clyde

Association between covariates and aggregate chronic HCV prevalence*



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Key messages

- Rapid scale-up of DAAs has been achieved in Tayside through HCV testing & treatment in community settings
- Largest decline in chronic prevalence seen in Tayside, relative to other Scottish regions where treatment uptake has not been as great
- Some vulnerable groups (e.g. homeless) may have lower uptake of therapy and therefore require additional targeted interventions

Key messages

- Rapid scale-up of DAAs has been achieved in Tayside through HCV testing & treatment in community settings
- Largest decline in chronic prevalence seen in Tayside, relative to other Scottish regions where treatment uptake has not been as great
- Some vulnerable groups (e.g. homeless) may have lower uptake of therapy and therefore require additional targeted interventions
- Next sweep of NESI (2019-20) will provide data to more fully evaluate EPITOPe

Acknowledgments

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