GCU Glasgow Caledonian University

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Health Protection Scotland

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

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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

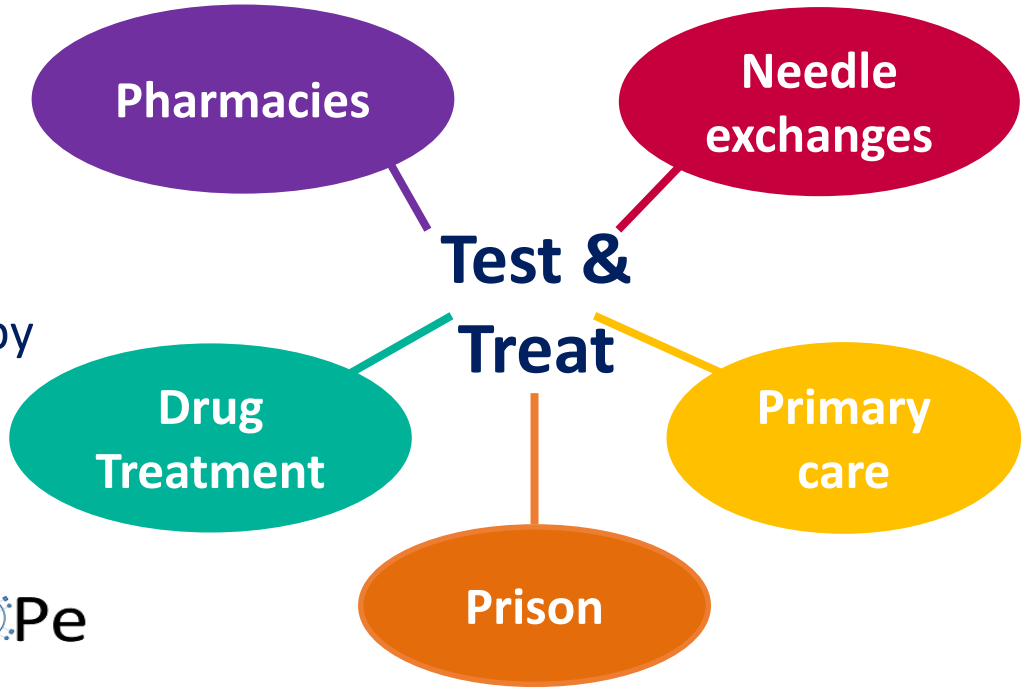
- **Elimination strategy:** ≤5000 chronically infected people by 2024
- **Treatment Targets:** Average of 3,000 people each year from 2020

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)



EPITOPe

Early scale-up of HCV therapies among PWID in Tayside

eradiCate

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

SuperDOT-C

- 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
NEEDLE EXCHANGE SURVEILLANCE INITIATIVE

NESI: Background

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

Setting:

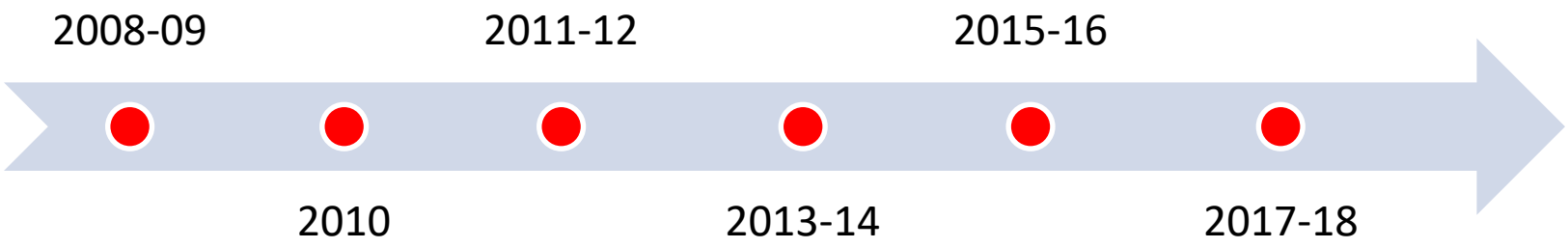
- Services that provide sterile injecting equipment across Scotland (mainland NHS Boards)

Eligibility:

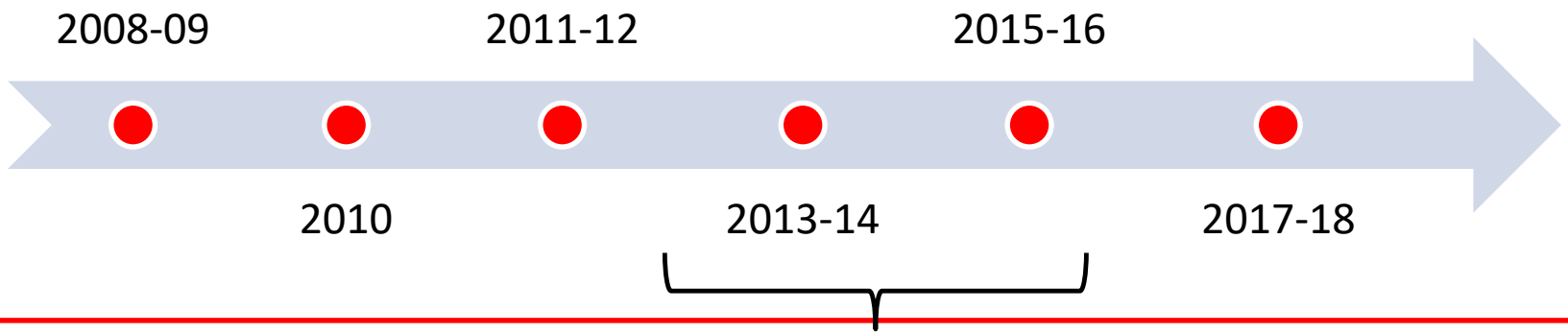
- Ever injected drugs (70-80% injected in the last 6 months)

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

NESI sweeps



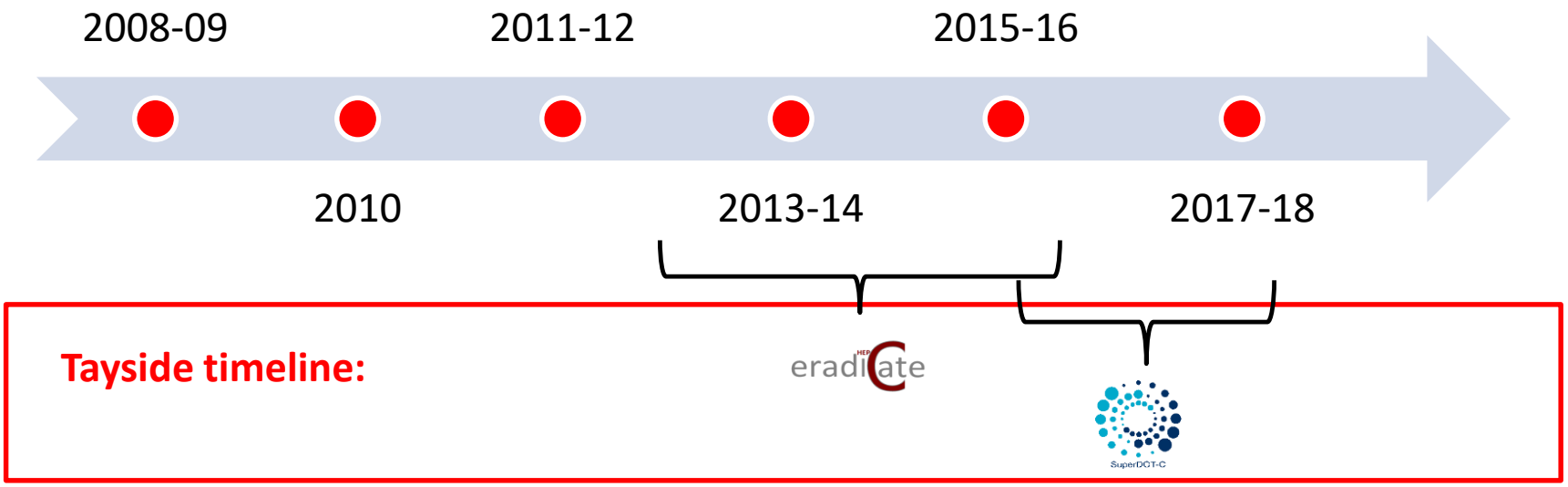
NESI sweeps



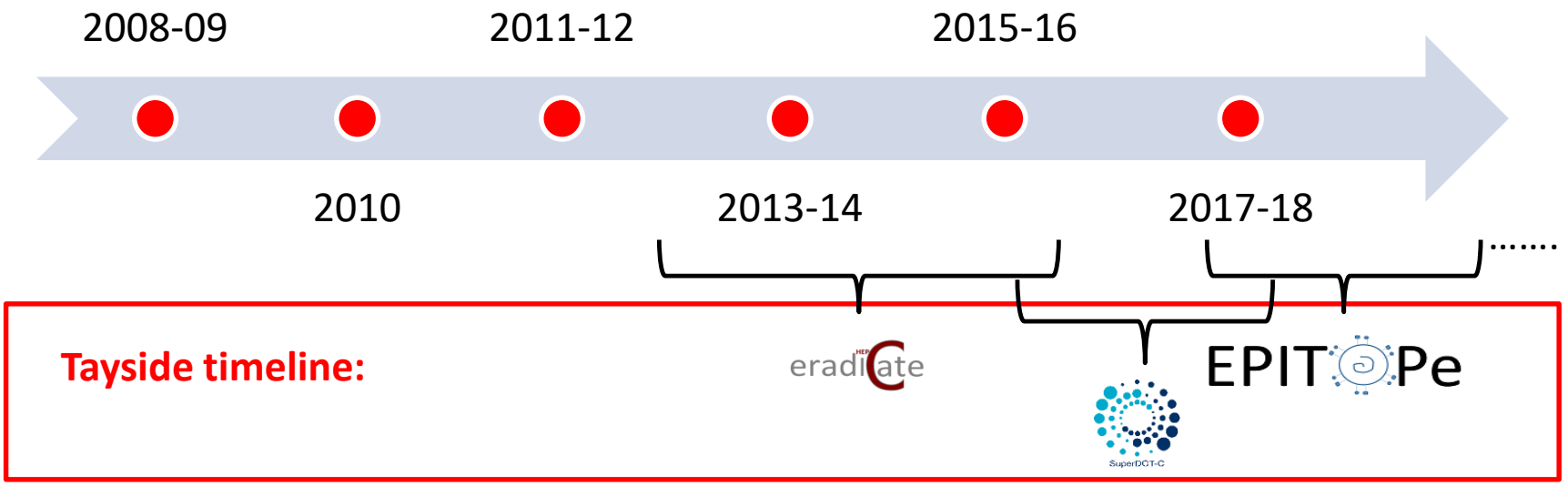
Tayside timeline:

eradicate

NESI sweeps


2008-09
2011-12
2015-16
2010
2013-14
2017-18
Tayside timeline:
eradicate HEP C
SuperDCT-C

NESI sweeps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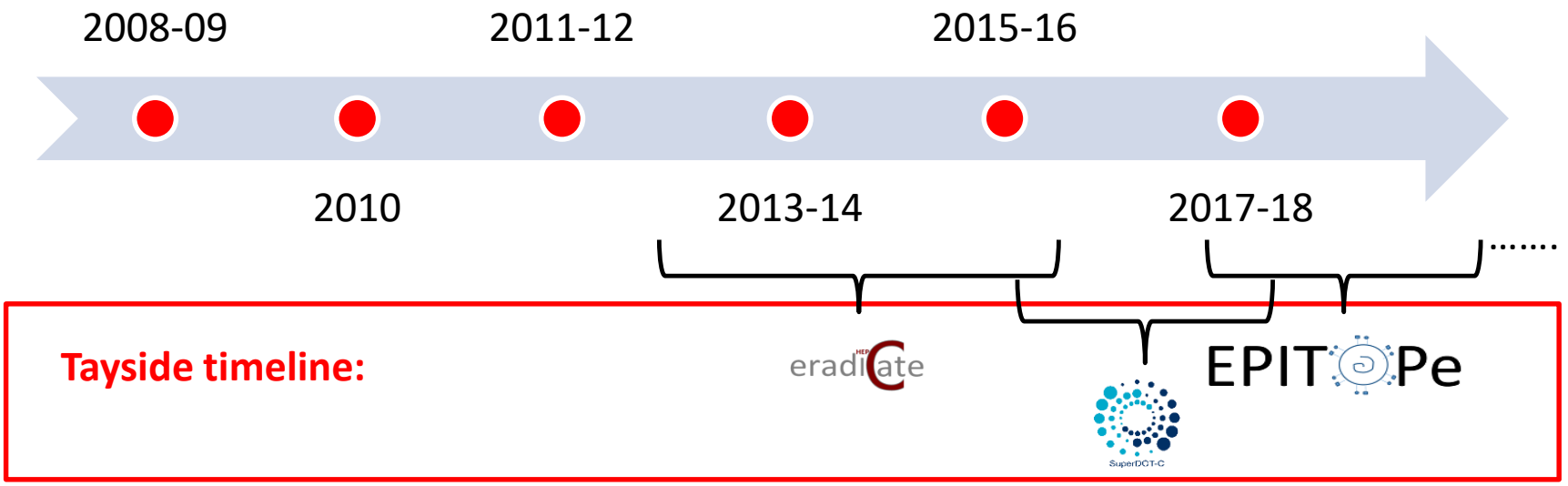
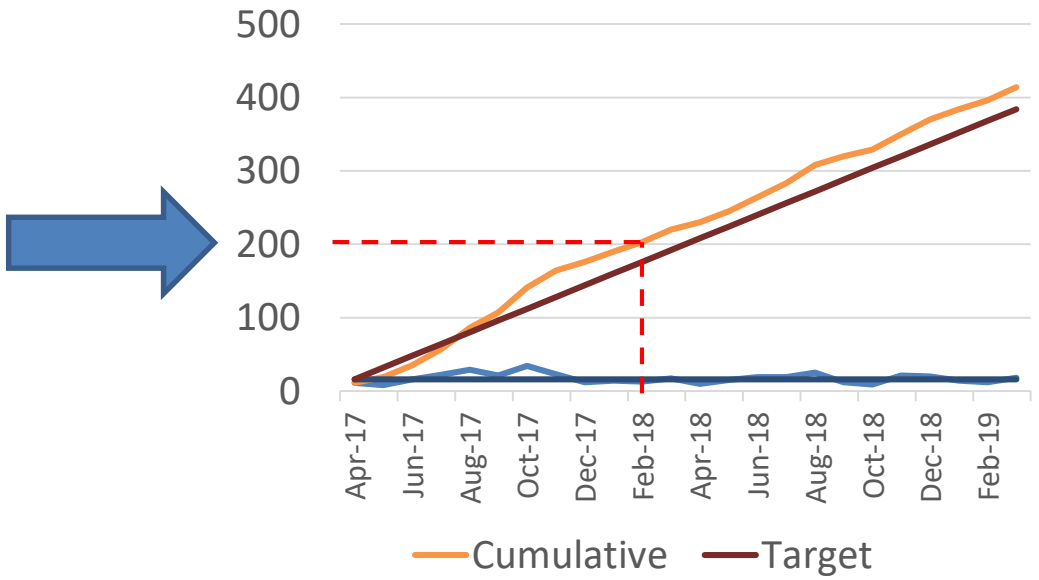


Approximately 40% of overall Epitope treatment target achieved in Tayside by the end of recruitment in the 2017-18 NESI sweep



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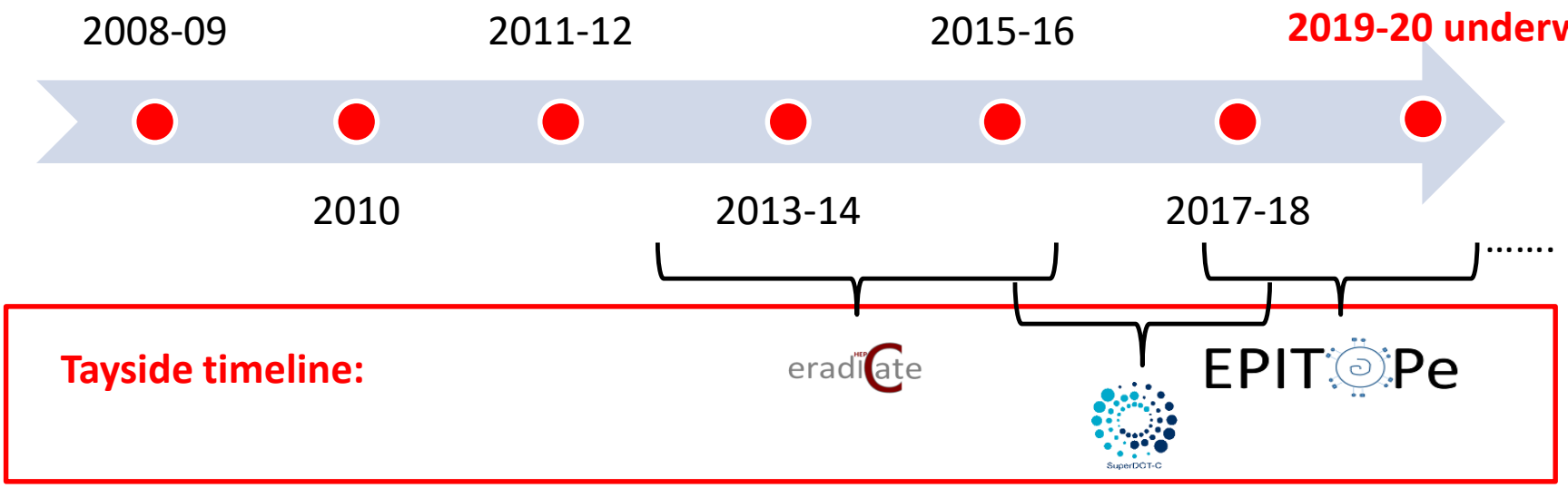

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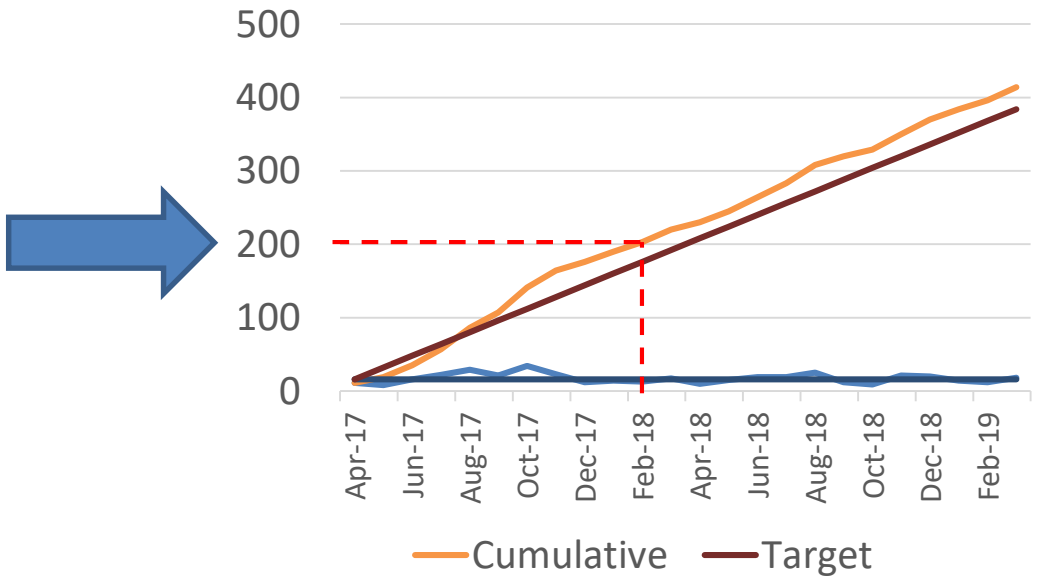
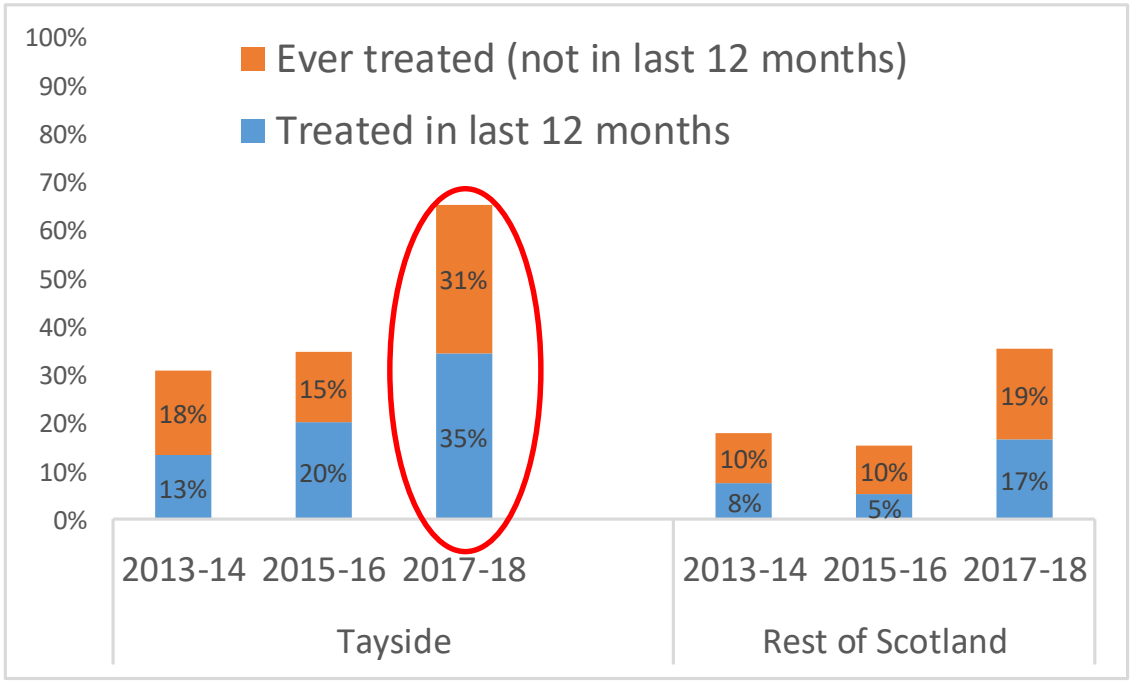


Participants & demographics

	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 injectors[1]	78%	84%	83%	82%	69%
% Injected cocaine[2,3]	10%	11%	12%	15%	31%
% Homeless[2]	22%	21%	25%	22%	23%
% on OST[2]	80%	81%	73%	78%	80%
% with 100% NSP coverage[2,3]	78%	77%	84%	71%	77%
HCV antibody prevalence	54%	56%	57%	57%	57%

[1]injected in last 6 months
[2]in the last 6 months
[3]among those who reported injecting in the last six months

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



- 66% ever treated in Tayside

*among those who were eligible for therapy

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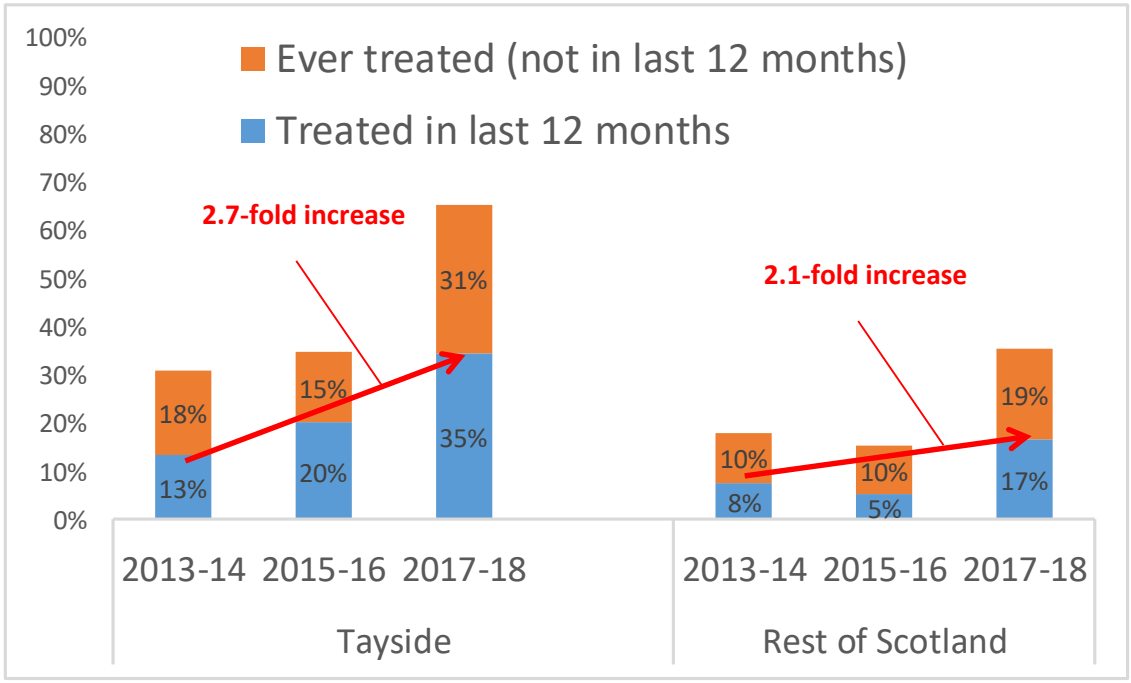

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- Increase in recent treatment (last 12 months) seen across Scotland but larger in Tayside

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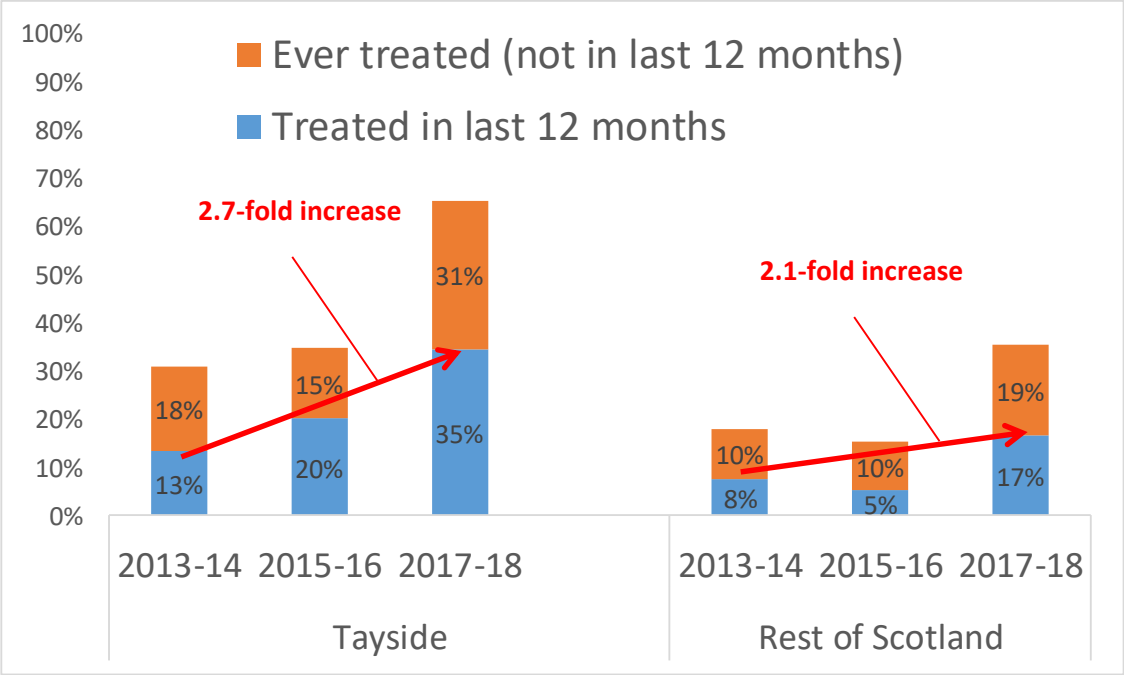

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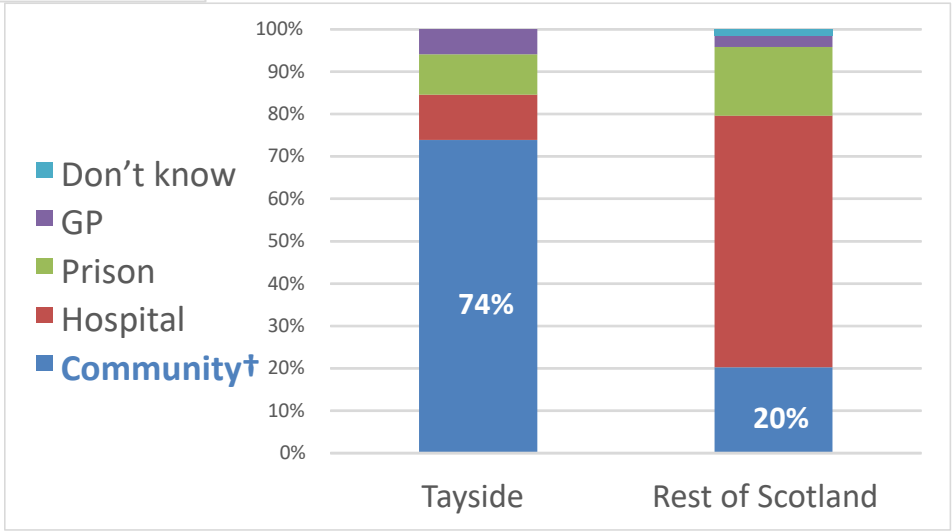
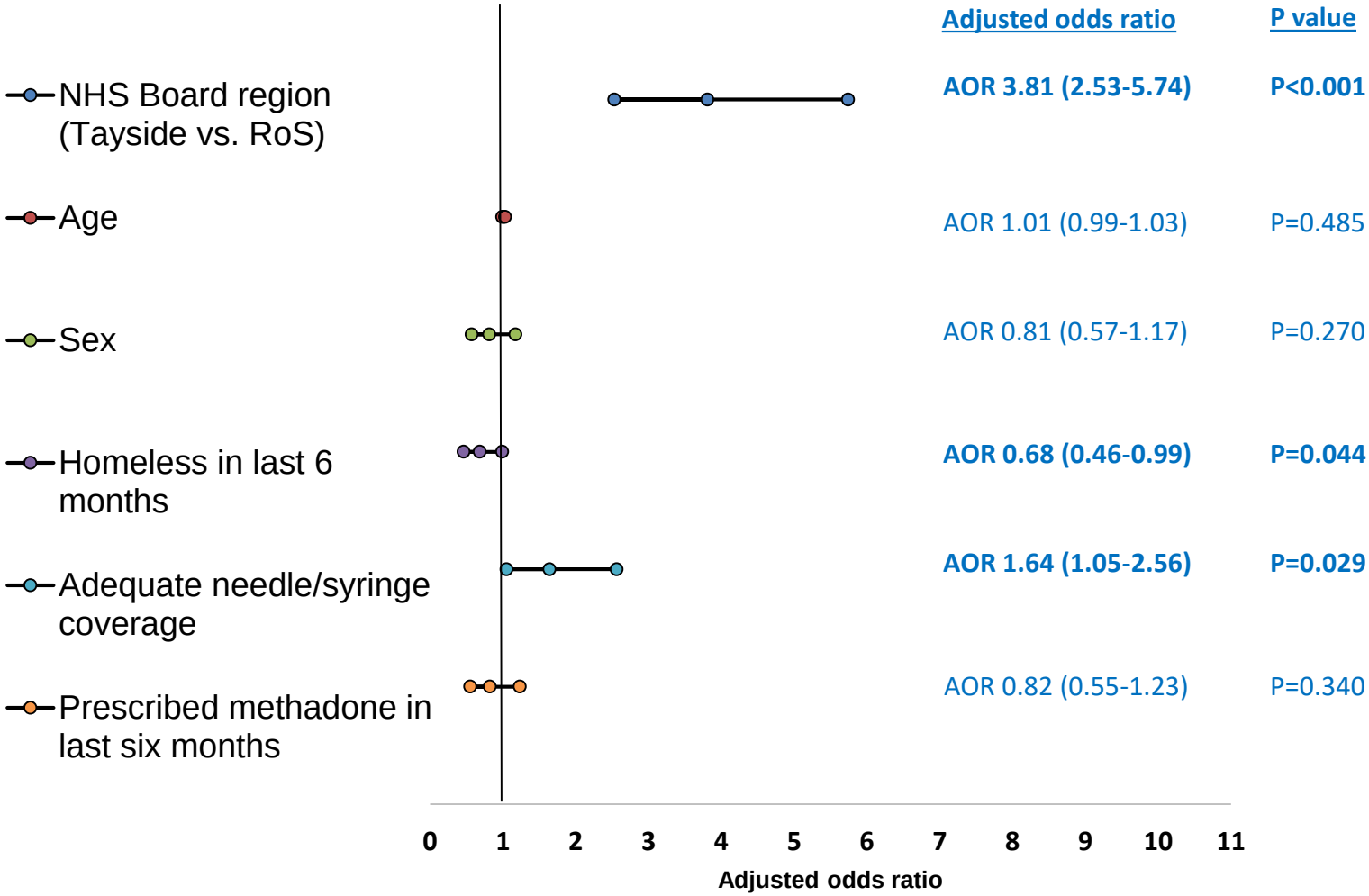
Site of therapy initiation, 2017-18**



*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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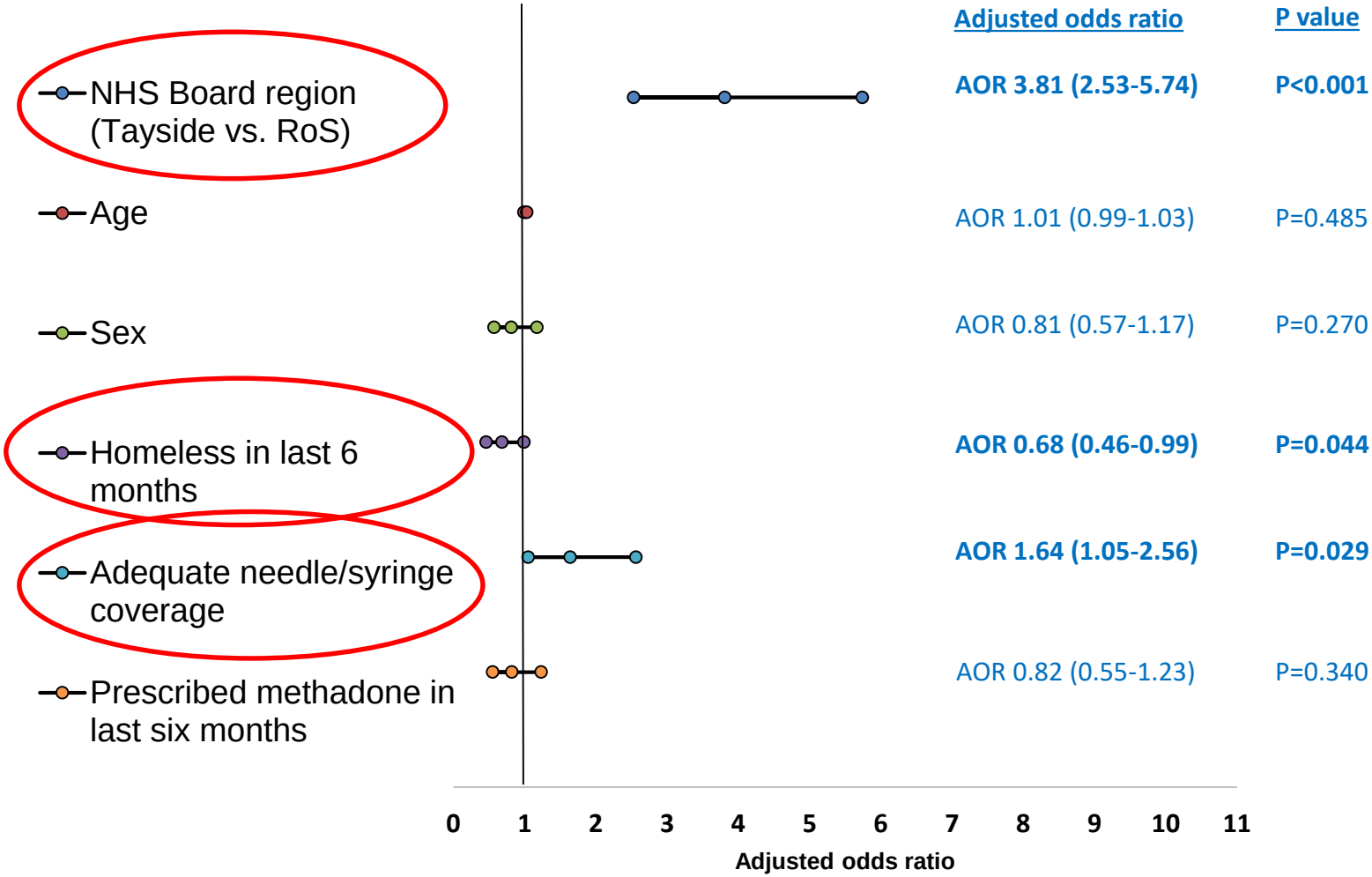
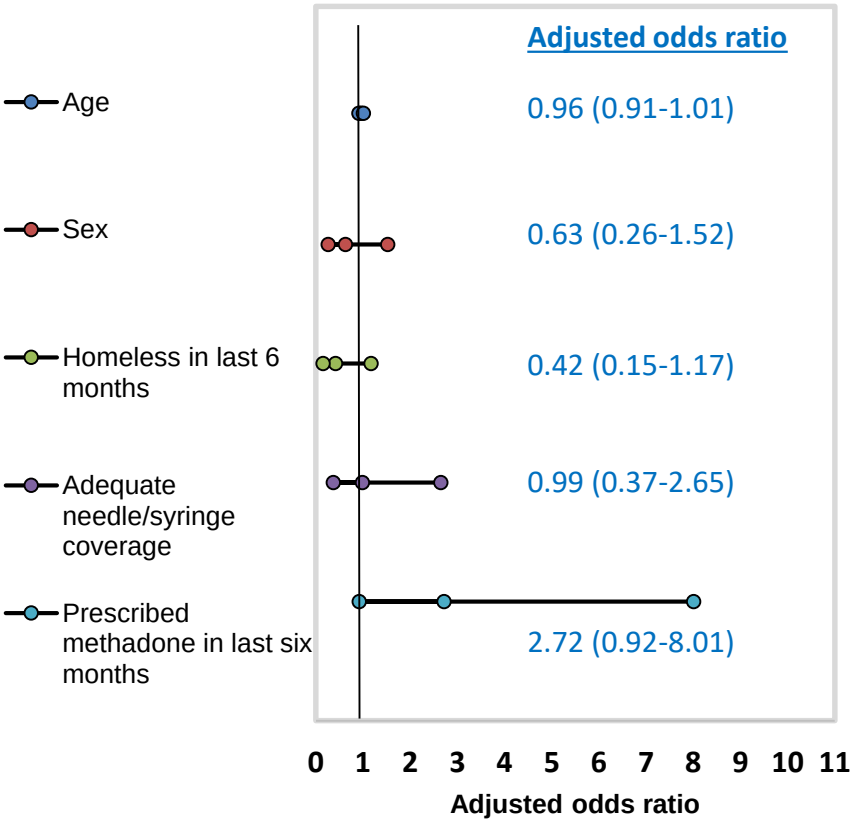
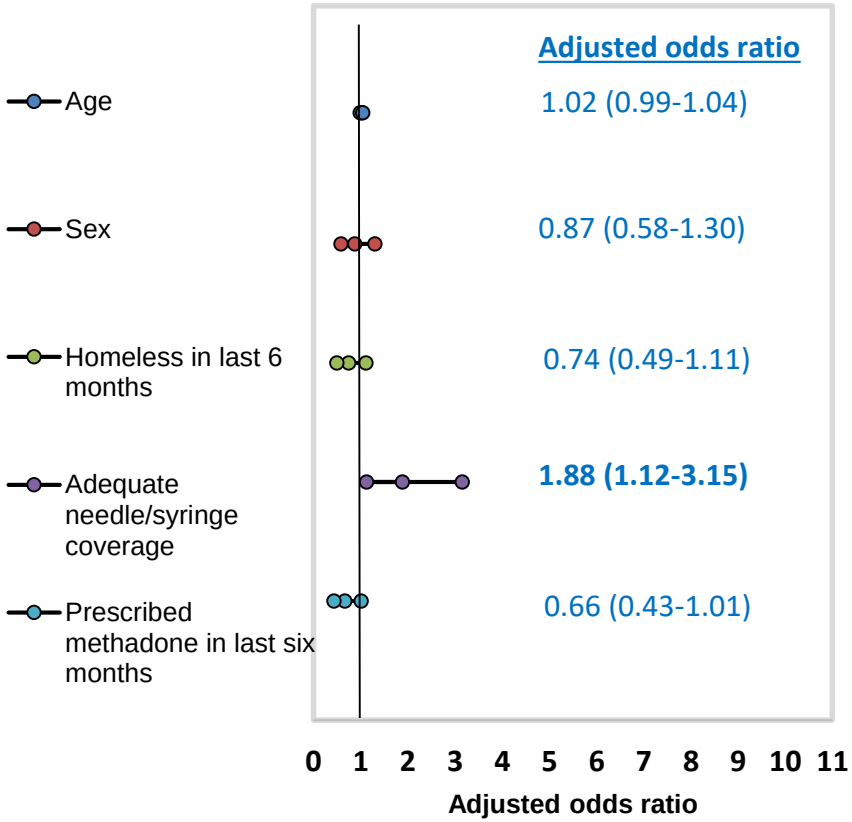


Characteristics associated with recent HCV therapy uptake (NESI 2015-16 & 2017-18)

Tayside (n=132)



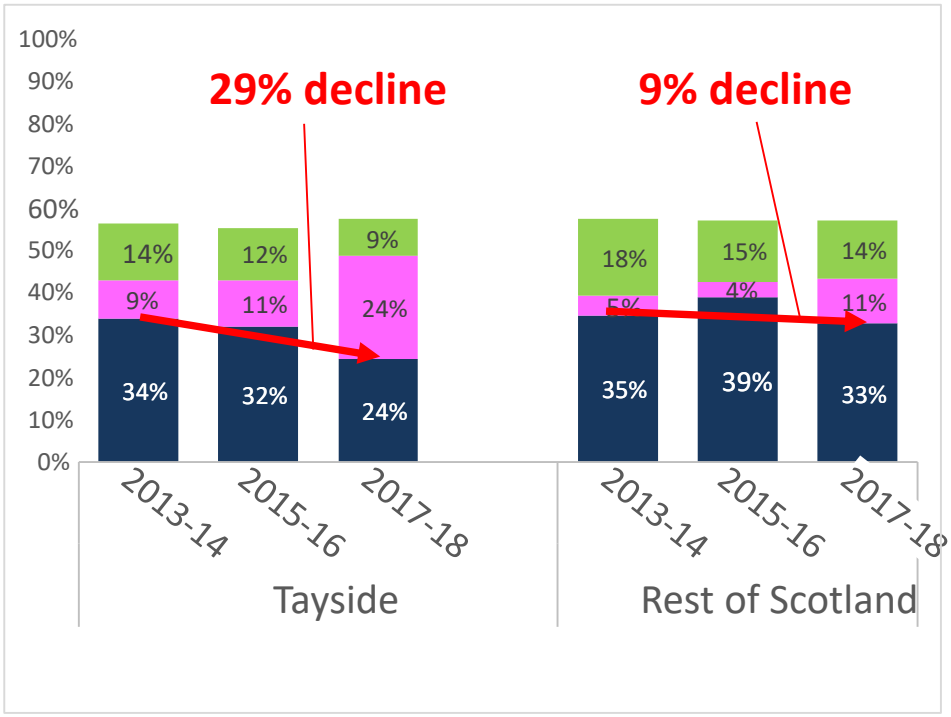
Rest of Scotland (n=1,415)



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

(*missing Ab and RNA data have been imputed)

All PWID



Chronic HCV

Cleared HCV, with evidence of therapy

Cleared HCV, no evidence of therapy

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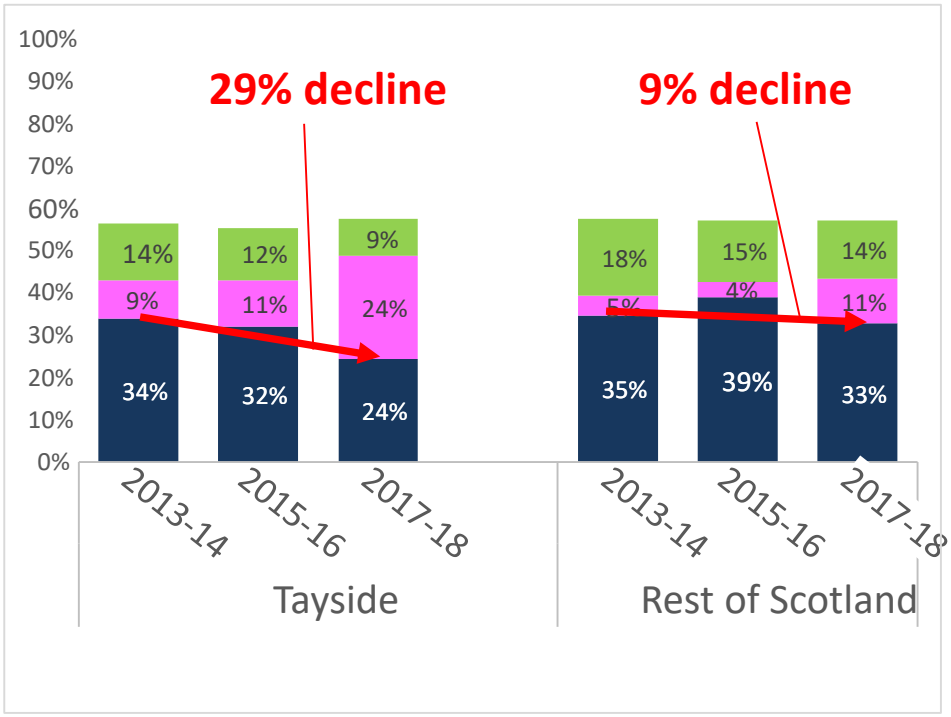
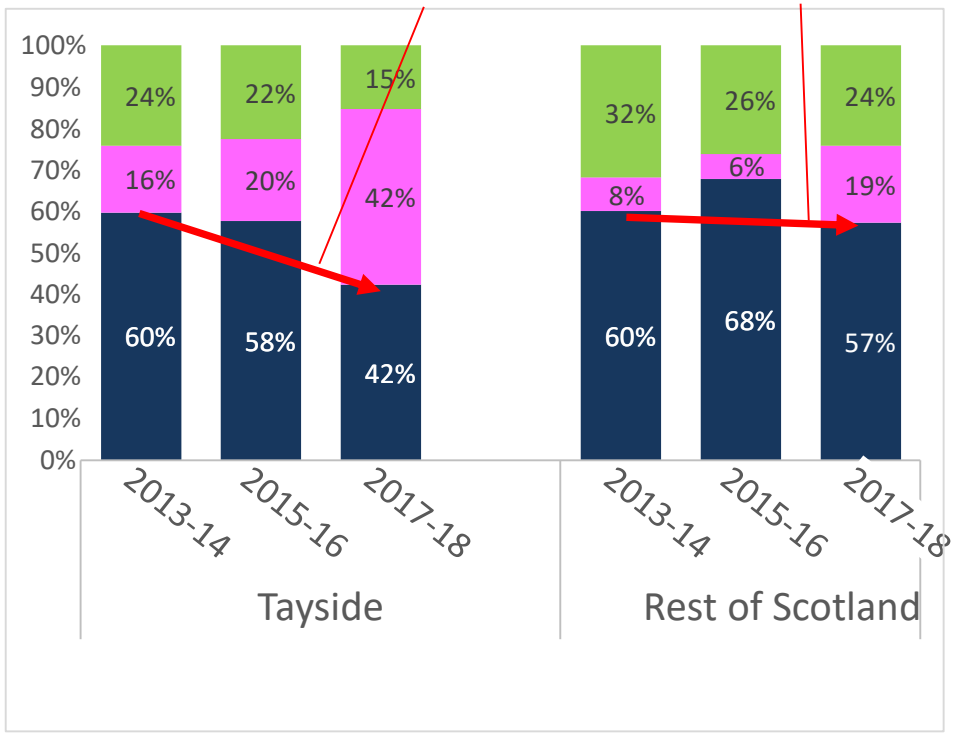


Antibody positive PWID



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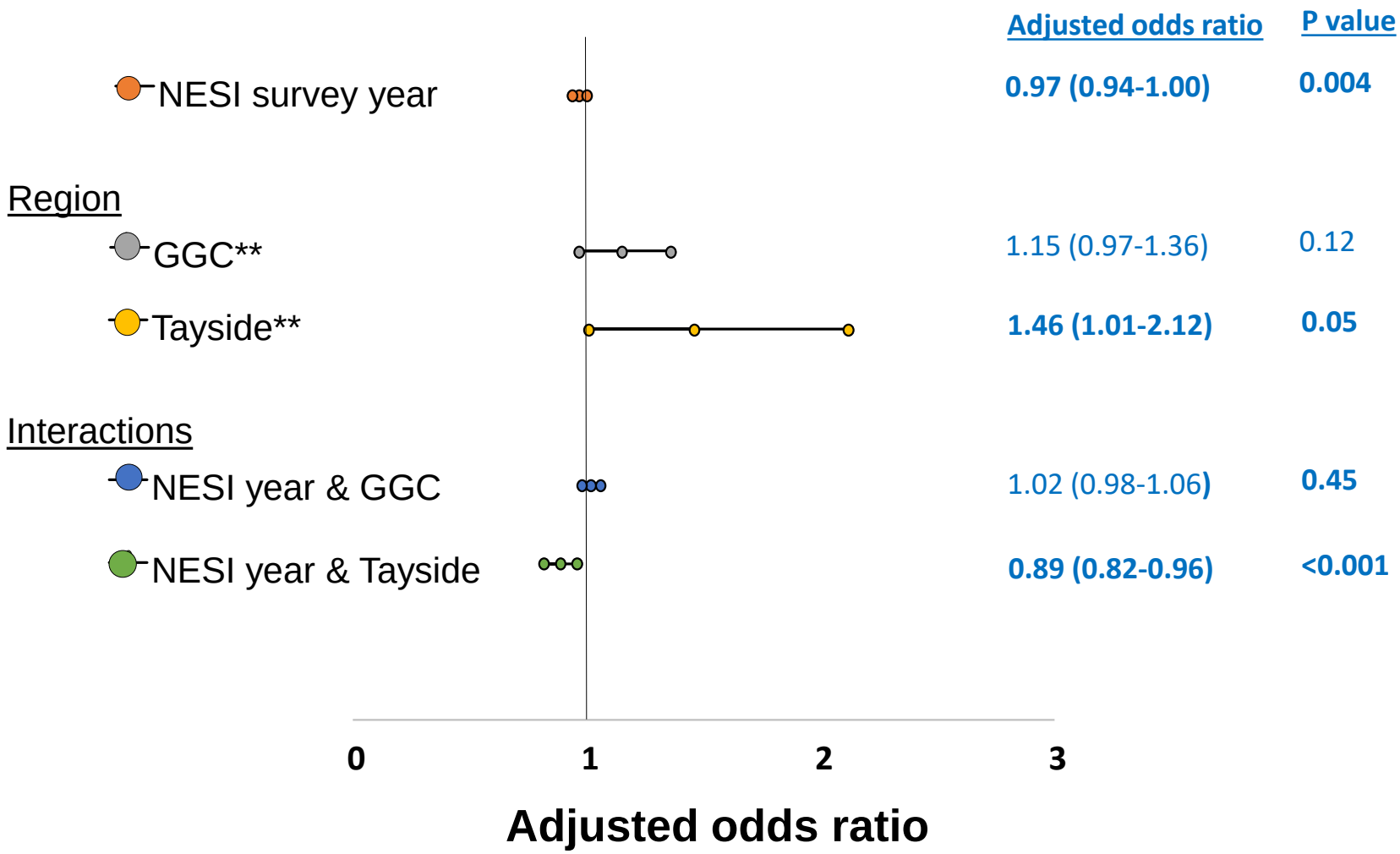
Association between covariates and aggregate chronic HCV prevalence*



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

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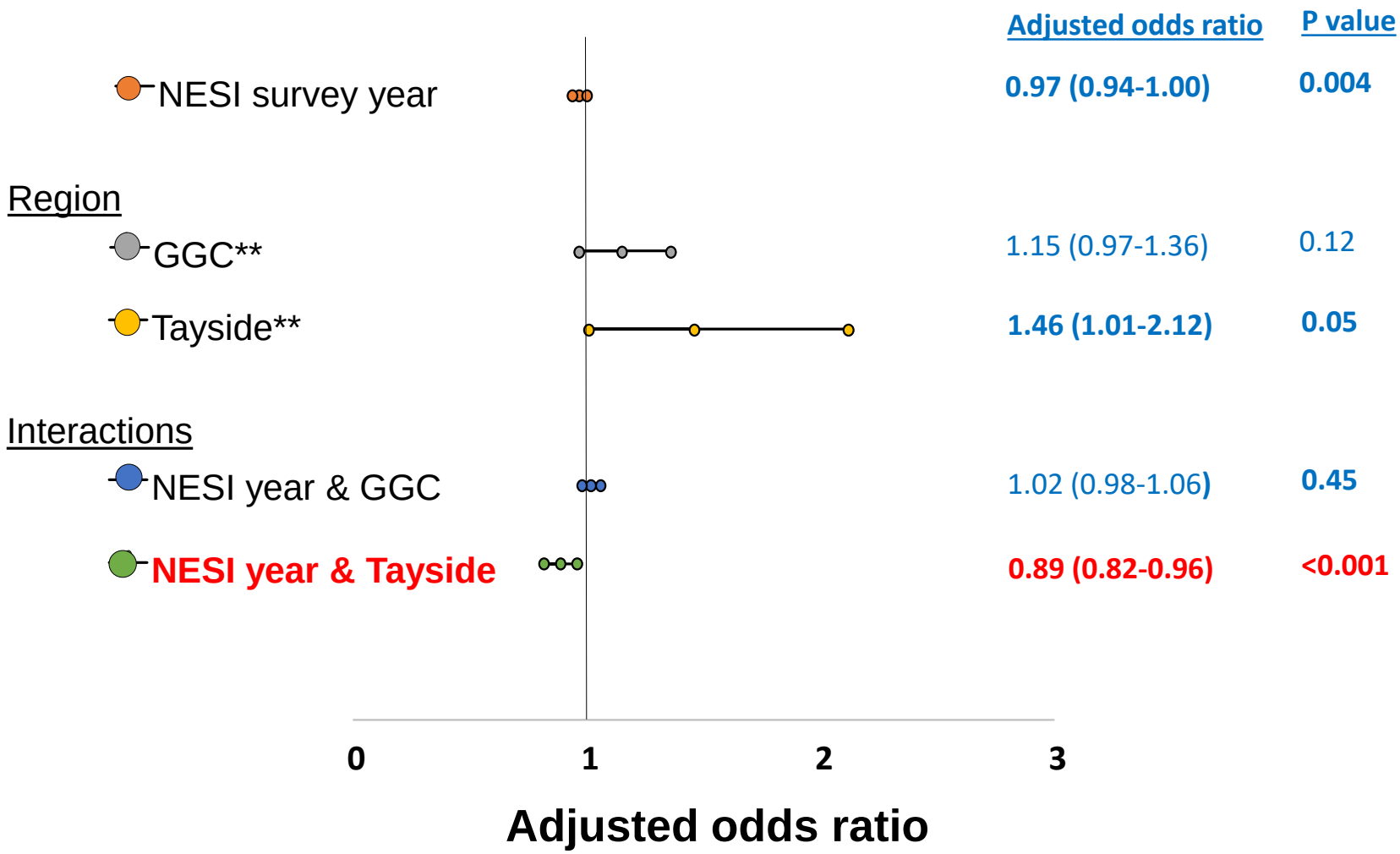

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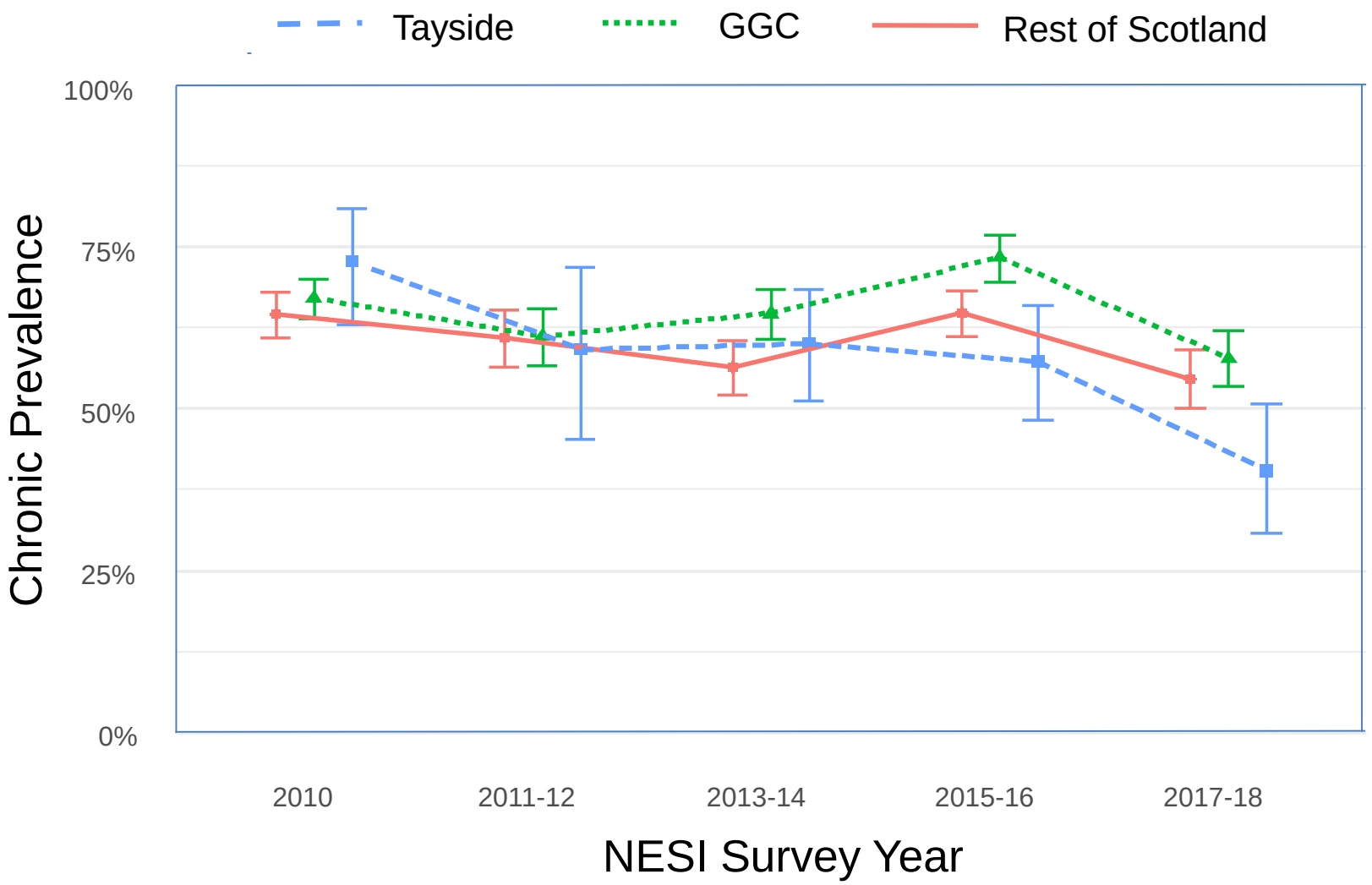

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Key messages

- 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

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