



# Progress on Hepatitis C elimination in Scotland

**Sharon Hutchinson**

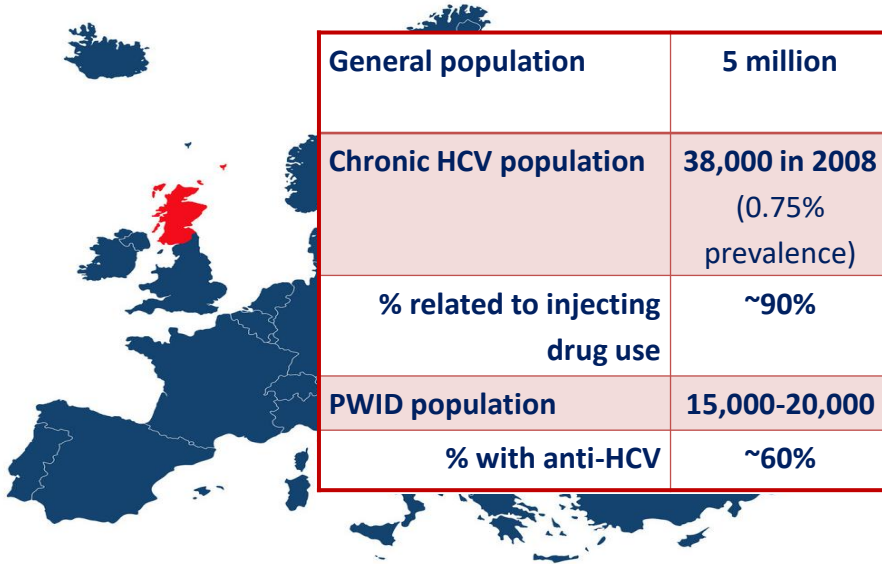
(Glasgow Caledonian University/Health Protection Scotland)

*AVHEC 2019, Sydney, 6<sup>th</sup> August 2019*

## Disclosure

Honoraria for presenting at a  
conference sponsored by **Gilead**

## Scotland and Hepatitis C : context



## Scottish Government Policy in the pre-DAA era

### 2008-14 Hepatitis C Action Plan

- Aim : Reduce HCV transmission/ morbidity/ mortality
- Additional funding **£15 million/yr**
  - Optimise HCV Services  
(covering prevention, diagnosis, treatment)
  - Coordination
  - Monitoring and evaluation
- Performance managed
  - HCV Treatment Targets
- Multi-disciplinary approach
  - Facilitated through local and national networks

## Monitoring Progress : national surveillance systems

- Prevention** : **Surveys** of PWID (biennial)
- Diagnosis** : **Laboratory surveillance** including HCV Test and Diagnosis databases
- Treatment** : **Clinical Databases** at HCV treatment centres
- Disease** : **Record-linkage** of HCV databases with hospital/cancer/deaths registries

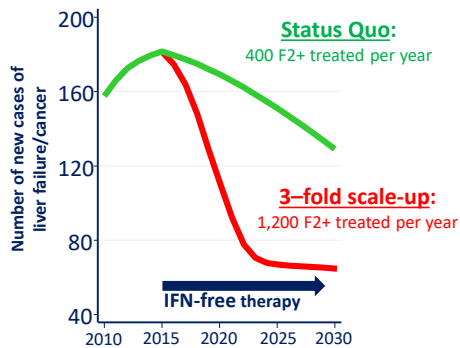
## Progress and lessons learnt in the pre-DAA era (Hutchinson et al. IJDP 2015)

- Prevention** : Improvements in harm reduction services  
(~70% recent OST and ~70% adequate NSP coverage)  
: *But prevalence/incidence of HCV remains high*
- Diagnosis** : DBS testing in drug treatment settings effective  
(~50% increase in proportion of infected diagnosed)  
: *But large minority HCV infected remain undiagnosed*
- Treatment** : Increase in clinical (specialist nurse) capacity  
(with 2.5-fold rise in annual number treated)  
: *But number treated within specialist care reached a ceiling in the interferon era*
- Disease** : Numbers developing HCV-related liver failure/cancer continued to rise

## Modelling work to inform scale-up of DAAs (Innes et al. Gut, 2015)

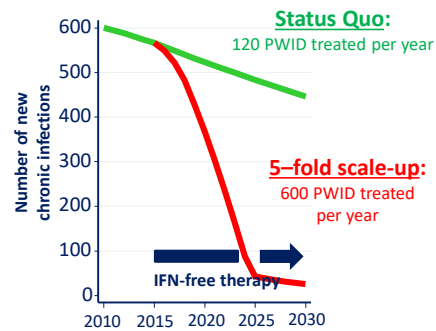
### A) Prevent severe liver disease

Modelled incidence of HCV-related liver failure/cancer in Scotland with different treatment scale-up of F2+

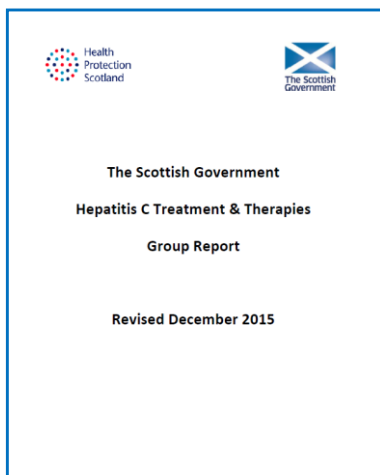


### B) Prevent transmission

Modelled incidence of new HCV infection in Scotland with different treatment scale-up of PWID



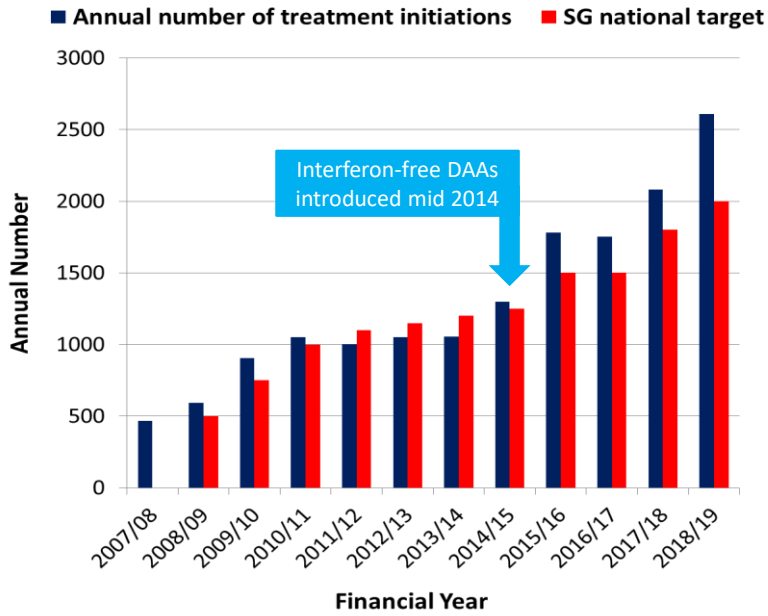
## Scottish Government Policy in the DAA era (2015-2018)



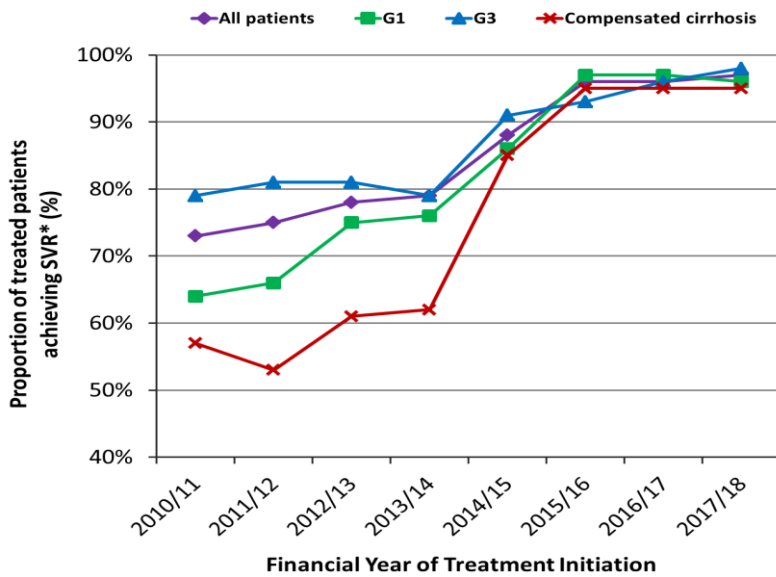
### Treatment Strategy

- **Disease Target** : 75% ↓ in liver failure by 2020
- **Treatment Targets** : 50% ↑ modest scale-up initially
- Prioritisation based on disease stage (**lifted in 2018**)
- Aim to deliver therapy for most infected people in community settings (includes prisons)

## Scale-up of HCV therapy in Scotland

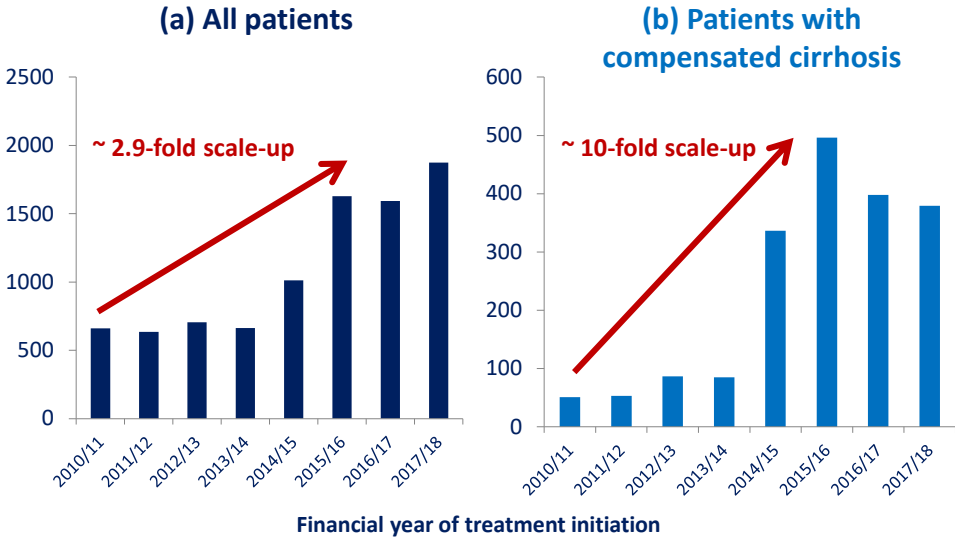


## Response to HCV therapy in Scotland



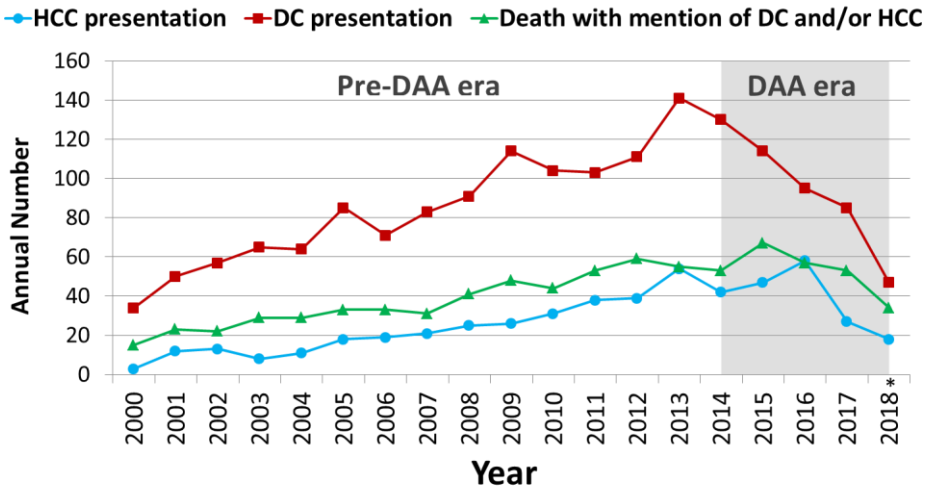
\* Among those with SVR (sustained viral response) status known, relating to 74% of all treated patients

## Estimated scale-up of the number of patients achieving SVR\* in Scotland



\* Assumed equivalent SVR rate for those who have completed therapy but without SVR status as for those with SVR status

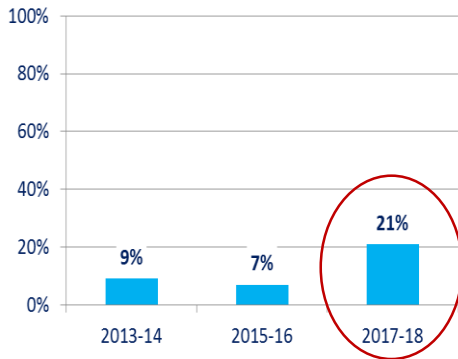
## Monitoring impact of DAAs on presentations of decompensated cirrhosis, HCC and mortality among persons with chronic HCV infection\*\* in Scotland



\* Provisional estimates for 2018 presented; \*\* Chronic HCV at time of presentation

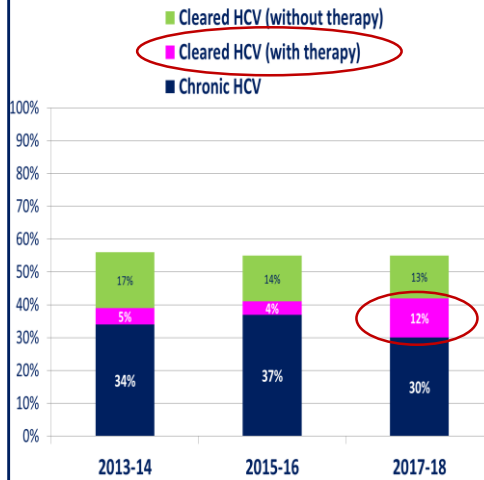
# Scale-up and impact of HCV therapy among PWID in Scotland

**Started HCV therapy in the last year** (among PWID eligible for treatment in the last year<sup>†</sup>)



<sup>†</sup> Ab+ve PCR+ve or Ab+ve PCR-ve and had self-reported initiated treatment in the last year

**Prevalence of chronic and resolved infection**



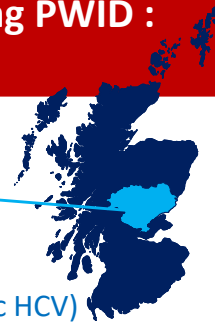
## Rapid major scale-up of DAAs among PWID : a feasibility study

### NHS Tayside 'elimination' plan\*

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

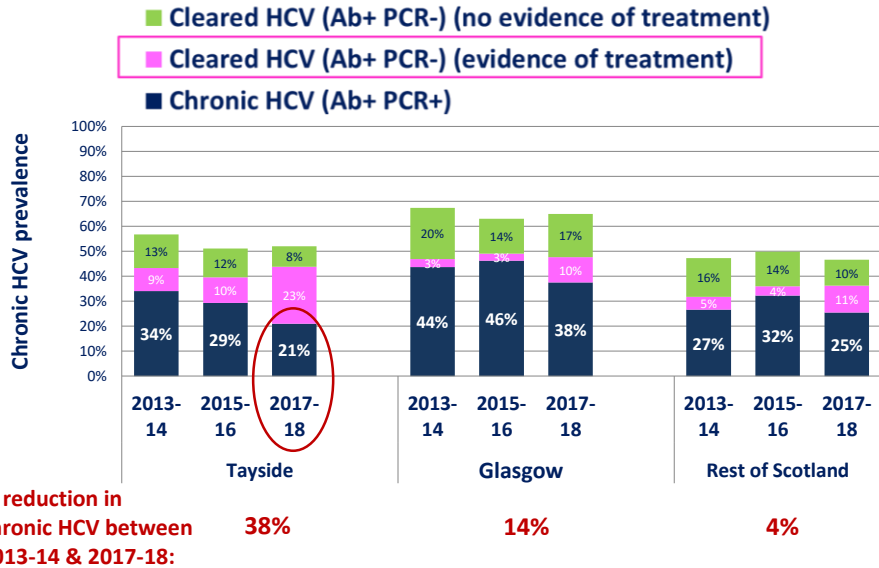
**NHS Tayside**

PopIn: 400,000  
PWID: 2,700  
(800 with chronic HCV)

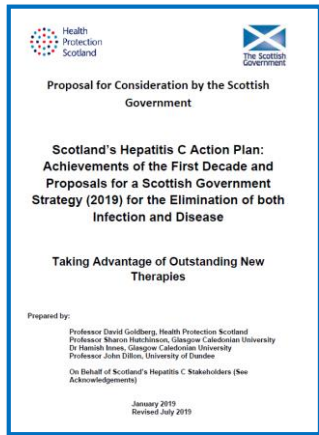


\*Evaluation supported by funding from NIHR

## Reduction in chronic HCV prevalence associated with treatment among PWID, by region in Scotland



## Scottish Government HCV Elimination Strategy (2019-2024)



[news.gov.scot/news/eliminating-hepatitis-c](https://news.gov.scot/news/eliminating-hepatitis-c)



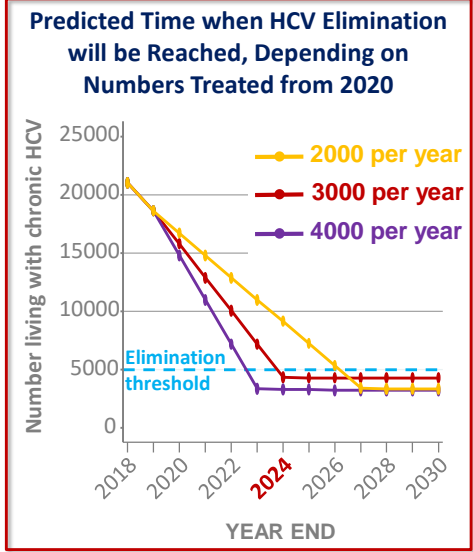
# Scottish Government HCV Elimination Strategy (2019-2024)

- Elimination of **infection** and **disease** as a serious public health concern

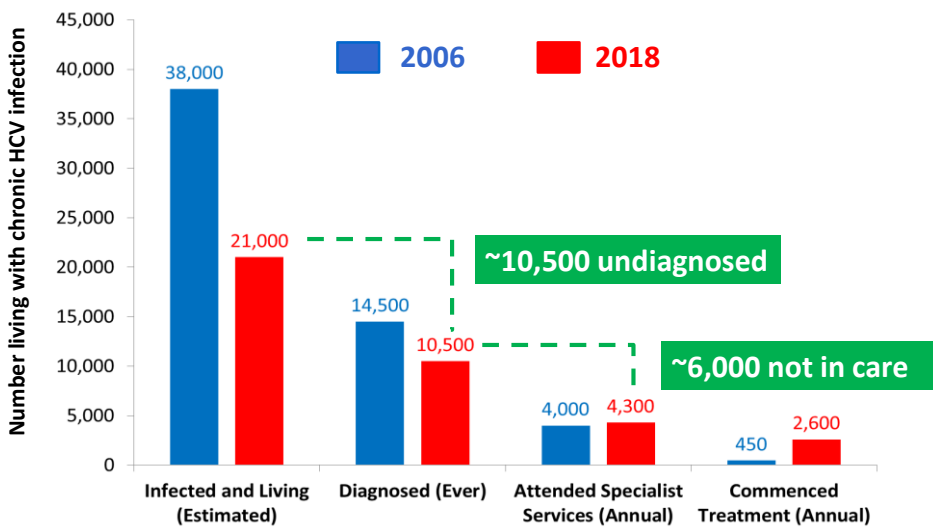
- **New targets (by 2024)**

**Disease** : Less than 10 deaths/  
liver failure/liver  
cancer cases

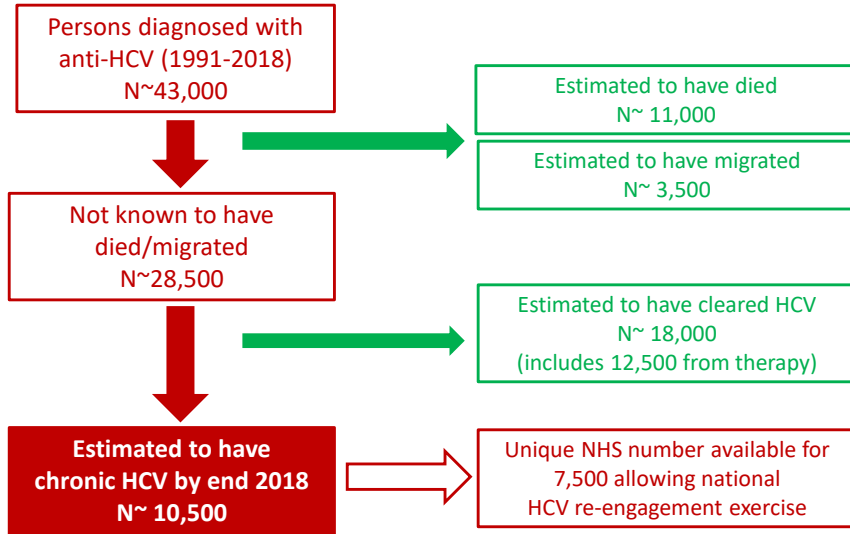
**Infection** : Less than 5,000  
infected (1 in 1,000)



## Elimination challenges

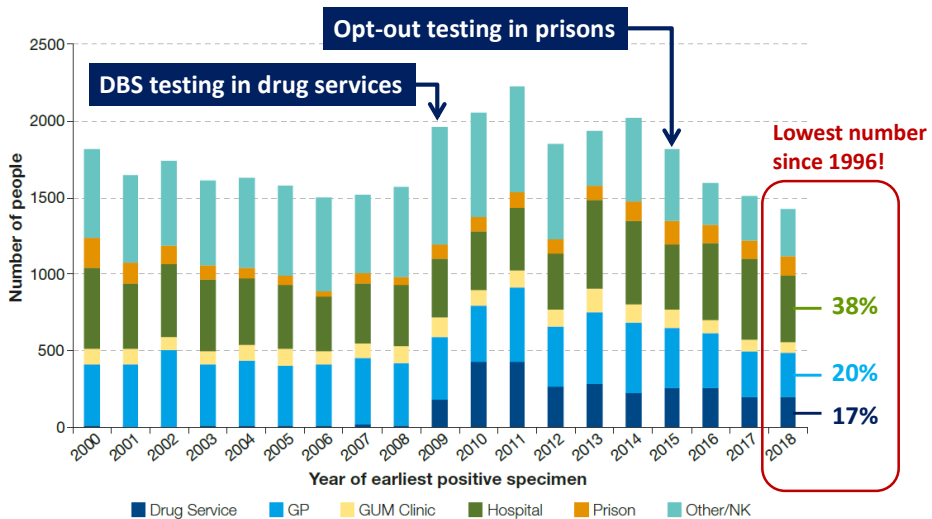


## Challenge 1: Re-diagnosis and re-engagement

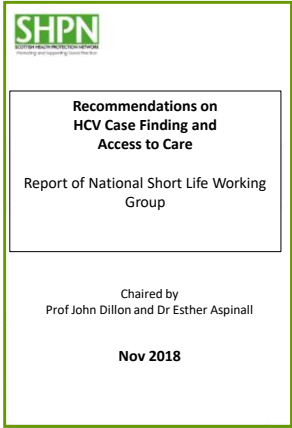


## Challenge 2: Diagnosis of those unaware (1 of 2)

Annual number of people newly diagnosed with anti-HCV in Scotland



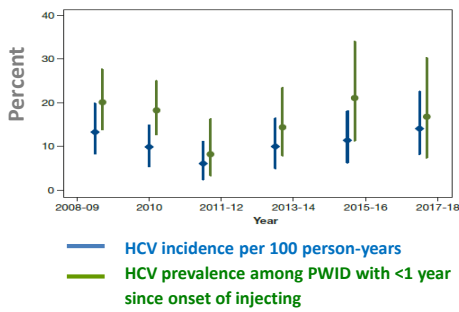
## Challenge 2: Diagnosis of those unaware (2 of 2)



- 18 recommendations**
- **Opt-out testing** for high risk groups (e.g. prisons, drug/harm reduction services, homeless services)
  - Local MCNs to **support GPs** in testing initiatives
  - Pilots of **POC testing** and other novel testing initiatives
  - Local **awareness raising** campaigns led by Public Health
  - **Training** for primary and secondary care HCWs
  - **Treatment provided at the testing venue**, where possible
  - Regular look-back re-engagement exercises
  - Feasibility study to identify people at risk from OST/drug addiction administrative records
  - **Pilot of birth cohort screening** in high deprivation areas

## Challenge 3: Minimising transmission

**A) Trends in new HCV infection among PWID**



**B) Trends in HCV re-infection among PWID achieving SVR**

Period	Rate of re-infection (per 100 person-yrs)
2000-2009	1.9
2010-2014	4.5
2015-2016	5.8
2017-Mar 2018	7.9



**Cocaine and homelessness 'behind HIV rise'**  
University researchers say Glasgow city centre has seen a 10-fold increase in HIV infection among drug users.

**Lancet HIV 2019**

Re-emergence of HIV related to injecting drug use despite a comprehensive harm reduction environment: a cross-sectional analysis

Andrew McAuley, Norah E Palmateer, David J Goldberg, Kirsten M A Traynor, Samantha J Shepherd, Rory N Gunson, Rebecca Metcalfe, Catrina Milosevic, Avil Taylor, Alison Murray, Sharon Hutchinson

## In summary

- ❑ **Robust evidence** informed the Scottish strategy AND continual monitoring and evaluation informs updates to that strategy
- ❑ **Government targets** on treatment numbers both at national and local level proven important in scaling up efforts
- ❑ **Compelling evidence of population impact of DAAs in averting liver morbidity/mortality**, and emerging evidence on **HCV treatment as prevention**
- ❑ **Monitoring data critical to help identify issues in the scale-up of services and drive innovation to achieve elimination**



## Acknowledgements



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