Successful real-world examples of HCV elimination among people who inject drugs

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Overview

- **Why is it important** to address HCV infection among people who inject drugs?
- **Examples of country-level progress** on HCV elimination among people who inject drugs
- **Future challenges and areas for development**

Epidemiology & Global targets

- **9% (6.1 million) associated with recent injecting drug use (IDU)**
- **% associated with either recent or past IDU not known**

WHO Global population estimates

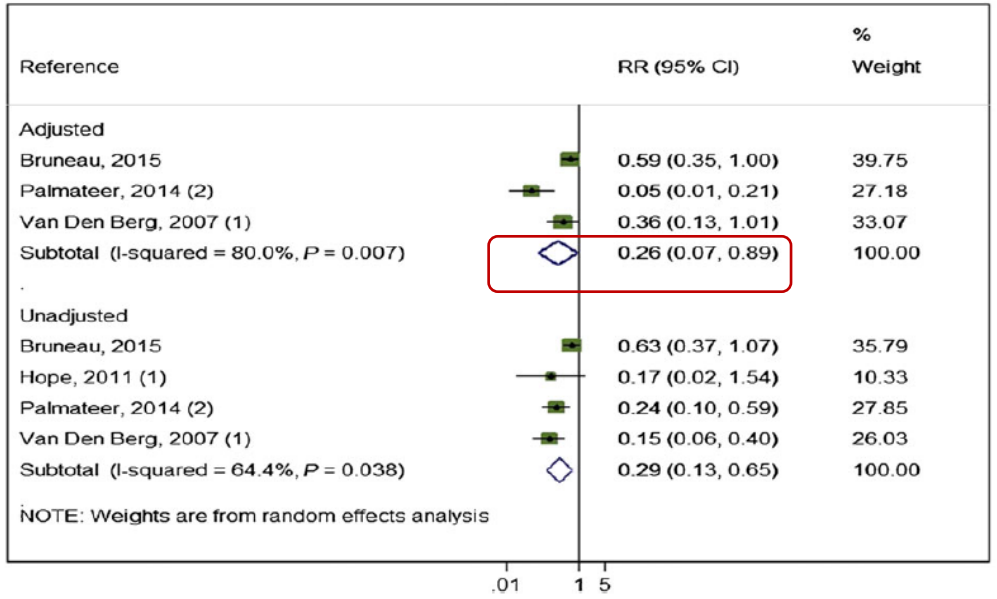
	2015	2019	2030 (TARGET)
Living with Chronic HCV infection (prevalence)	71 million	58 million	-
New Chronic HCV infection (incidence)	1.75 million	1.5 million	0.35 million (80% reduction from 2015)
Deaths from Chronic HCV infection (mortality)	400,000	290,000	140,000 (65% reduction from 2015)
DALYs due to Chronic HCV (2013)	18 million	-	-

39% (7 million) associated with either recent or past IDU

References : WHO reports 2017 and 2021. Grebely et al. Addiction 2019. Degenhardt et al. Lancet ID 2016.

Interventions to prevent HCV infection among people who inject drugs : empirical evidence

- Cochrane review and meta-analysis of 28 studies involving ~6300 subjects examining effect of **Needle and Syringe Programme (NSP)** and **Opioid Substitution Therapy (OST)** on HCV acquisition among PWID
- **Current OST associated with 50% reduction in HCV risk** (RR=0.5, 04-0.6)
- **High NSP coverage in European studies associated with 56% reduction in HCV risk** (RR=0.44, 0.2-0.8)
- **Combined OST/high NSP coverage associated with 74% reduction in HCV acquisition risk** (RR=0.26, 0.1-0.9)



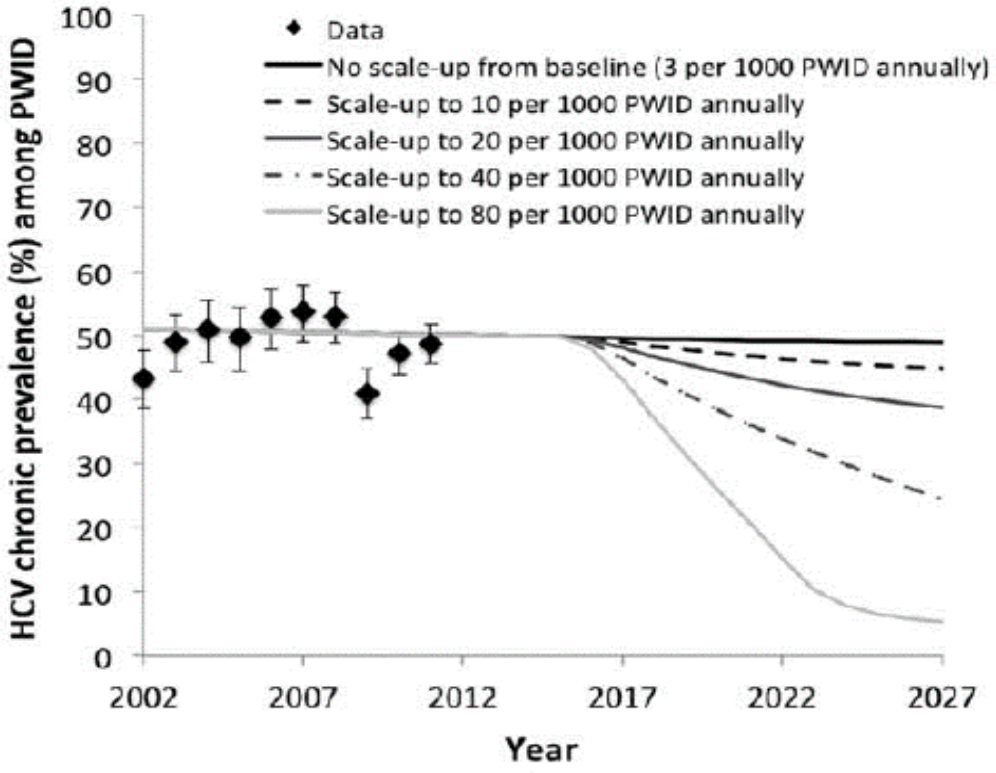
Association between combined OST and high NSP coverage on HCV incidence

Platt L et al. Needle and syringe programmes and opioid substitution therapy for preventing HCV transmission among people who inject drugs: findings from a Cochrane Review and meta-analysis. **Addiction 2018**

Intervention to reduce HCV prevalence and incidence among people who inject drugs : modelling studies

Hepatitis C Virus Treatment for Prevention Among People Who Inject Drugs: Modeling Treatment Scale-Up in the Age of Direct-Acting Antivirals

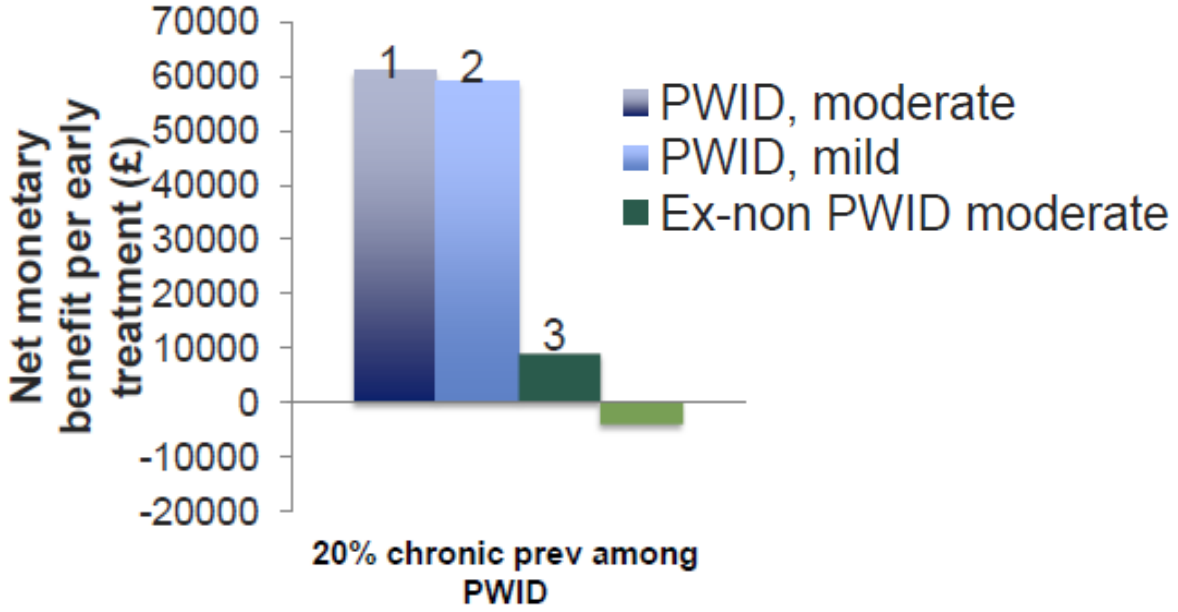
Martin et al. Hepatology, 2013



Modest levels of HCV treatment could potentially reduce HCV prevalence among PWID

Prioritization of HCV treatment in the direct-acting antiviral era: An economic evaluation

Martin et al. J Hepatology, 2016

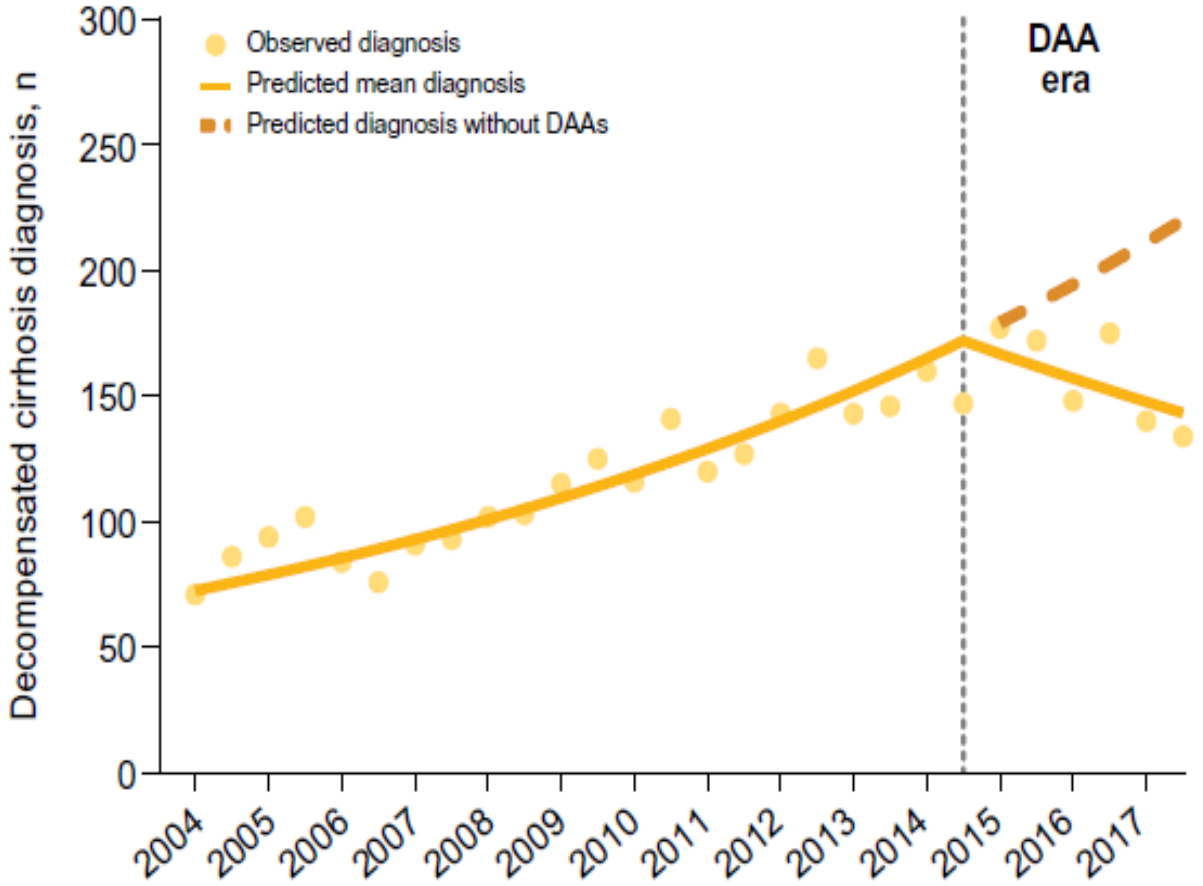


Treating PWID with moderate or mild fibrosis cost-effective compared to delay until cirrhosis

Economic modelling supports treatment for and prioritization of PWID

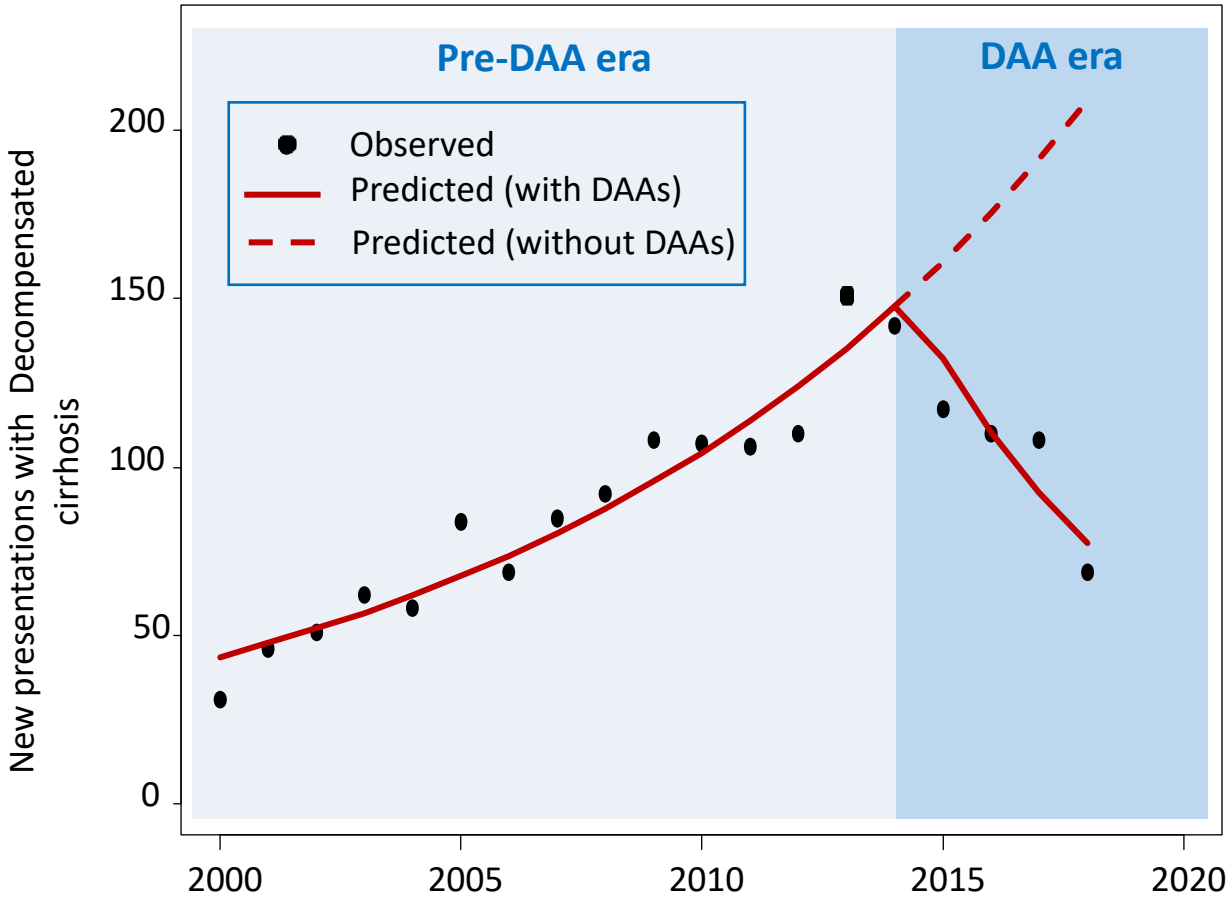
Impact of HCV DAAs on severe liver disease : real-world data from settings with IDU-related HCV epidemics

NSW, Australia



Alavi et al. JHep 2019

Scotland, UK



Hutchinson et al. Gut 2020

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Countries on track to achieve the WHO 2030 HCV-elimination targets

(Dore et al. Nature Med 2020)

	High-income countries									Low- to middle-income countries		
	Australia	France	Iceland	Italy	Japan	South Korea	Spain	Switzerland	United Kingdom	Egypt	Georgia	Mongolia
Population, *n* (million)	25	67	0.3	61	127	51	47	8	66	98	4	3
HCV RNA prevalence in 2015	1.0%	0.3%	0.3%	1.1%	0.7%	0.5%	0.8%	1.0%	0.3%	6.3%	4.2%	6.4%
Estimated number living with HCV in 2015, *n* (1,000)	230	194	1	680	857	231	386	78	189	5,625	165	194
Main population group(s) affected:												
PWID	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
HIV⁺ MSM	✓	✓						✓	✓			
Prisoners	✓		✓	✓				✓	✓			
Blood-product recipients and healthcare-associated transmission				✓	✓	✓				✓	✓	✓

Progress on HCV elimination among PWID in Iceland
(Olafsson et al. Lancet GH 2021)

- Iceland general popln : 330,000
- **Est Chronic HCV prev : 0.3%**
  : 90% ever injected
  : 90% diagnosed by 2016
- National government strategy
- **Free health care (DAAs free by Gilead)**
- Multi-disciplinary team approach (ID, hepatology & addictions)
- **NSP and OAT scaled-up**
- National HCV Registry / Monitoring systems
- **Existing HCV cases linked to care**
- Awareness campaign
- **Treatment delivered in prisons, homeless services and other outreach settings**
- Prompt retreatment offered to those who dropped out or re-infected

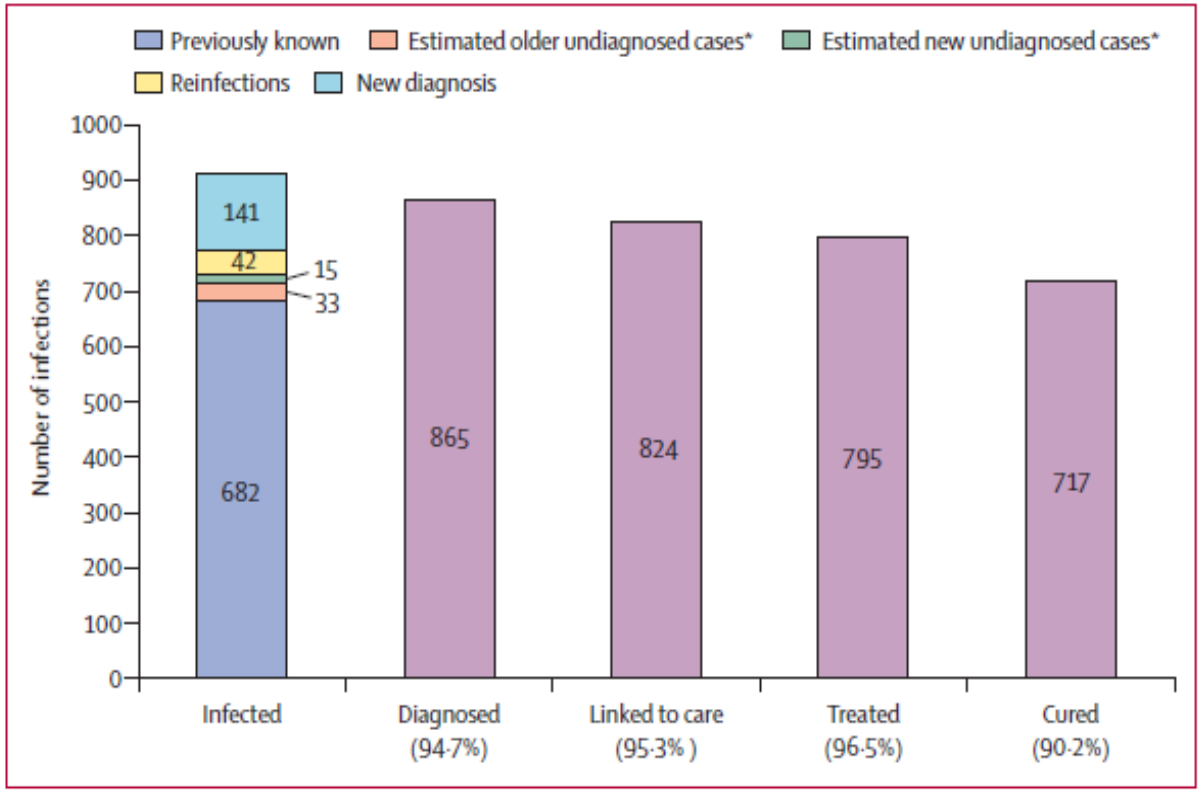
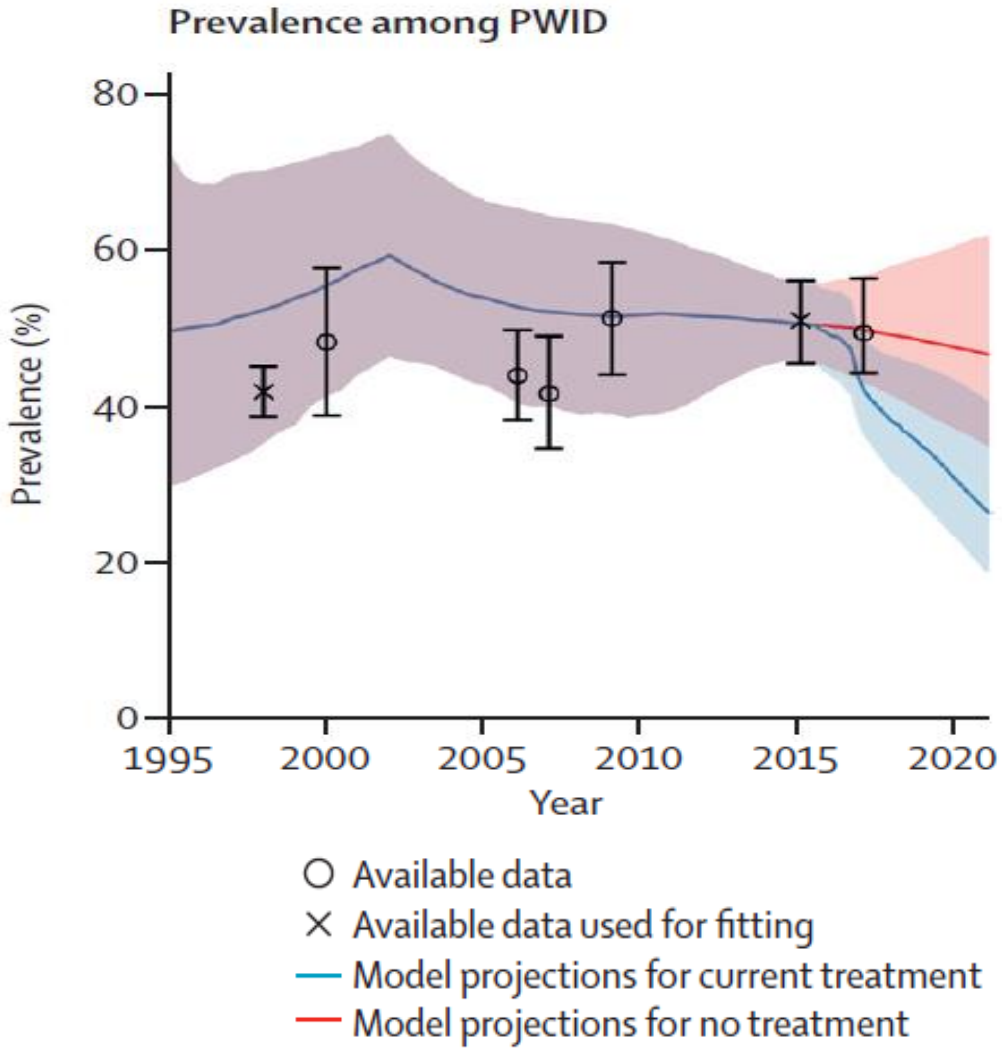


Figure 3: **Estimated number of viraemic infections, comprising previously known cases, estimated older undiagnosed cases, and estimated new undiagnosed cases, 2016–18**
New cases diagnosed between Feb 11, 2016, and Feb 10, 2019, and reinfections were also added to the estimate.
*See Methods for details of how these cases were calculated.

Progress on HCV elimination among PWID in Georgia

(Walker et al. Lancet GH 2020; Stvilia et al. MMWR 2019 and Public Health 2021; Averhoff et al. JHep 2020)

- Georgia general popln : ~3.7 million
  : 2% currently inject
- **Est Chronic HCV prev : 5.4%**
  : 40% ever injected
  : <40% diagnosed by 2015
- National government strategy
- **DAAs provided free by Gilead**
- National target of 90% reduction in prevalence by 2020
- **Serosurvey (2015) / National HCV monitoring systems/biobehavioural survey of PWID**
- Awareness campaign
- **Expansion in Treatment centres, including in prisons and harm reduction sites**
- HCV testing free of charge (including RNA from 2018)
- **Annual review identifying and addressing barriers**

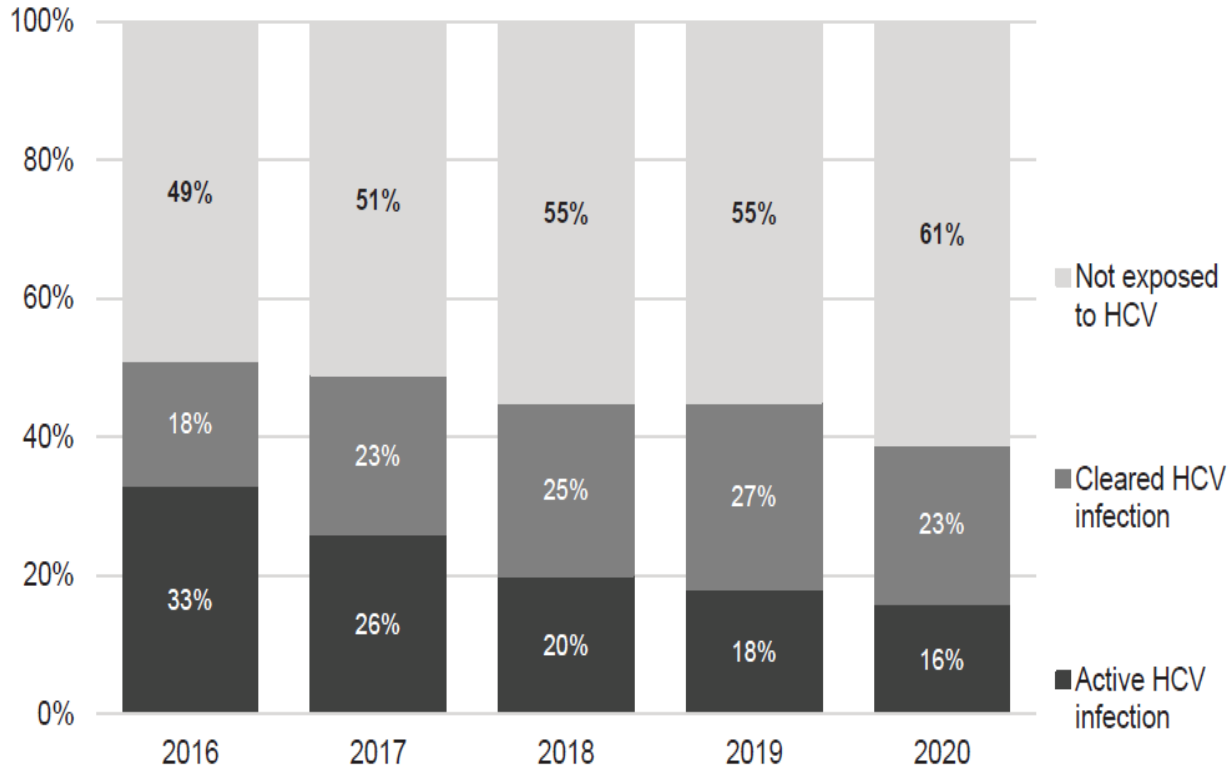


Progress on HCV elimination among PWID in Australia

(ANSPS report, 2021; Dore. Aust Prescr 2021; Schröeder Liver Int 2019)

- Australia general popln : 25 million
- **Est Chronic HCV prev : 1.0% (2015)**
  : 80% ever injected
  : 80% diagnosed by 2015
- Government invested strategy (A$1 billion to 2020)
- **Unrestricted access to DAAs, majority prescribed by non-specialists**
- No cap on treatment facilitated scale-up in PWID and other high prevalence populations
- **Treatment delivered in primary care, prisons, NSP and drug health services**
- Enhanced harm reduction (NSP and OAT)
- **National Surveillance Report/ Monitoring systems**

HCV viraemic status (%) among attenders at NSP services in Australia by survey year



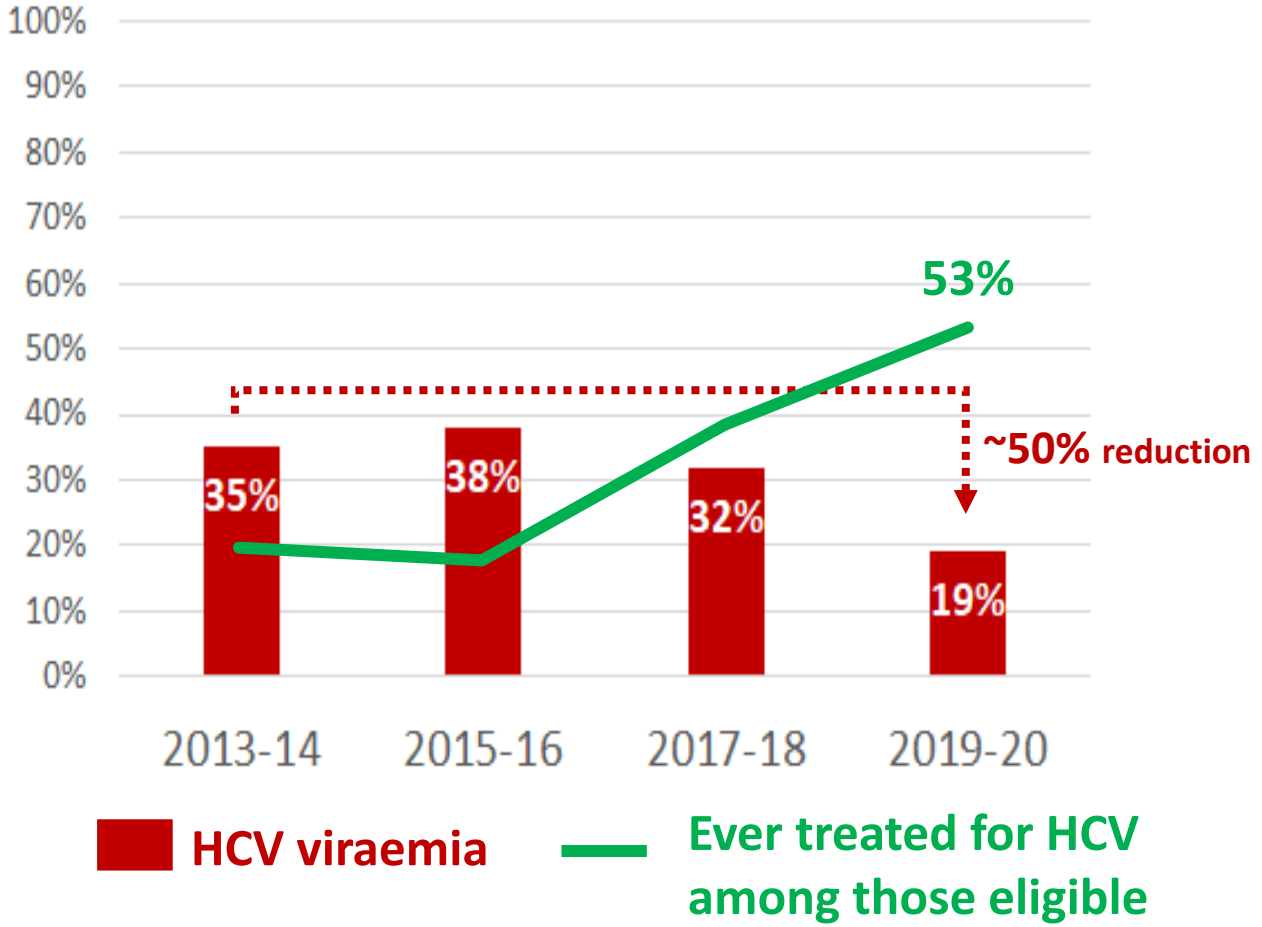
Progress on HCV elimination in Scotland/UK

(Palmateer Addiction 2021 & INHSU 2021 presentation; Hutchinson IJDP 2015)

- Scotland general popln : 5 million
- **Est Chronic HCV prev : 0.7% (2015)**
  : 90% ever injected
  : 60% diagnosed by 2015
- Government invested strategy since 2008
- **National Procurement negotiated DAA price reductions**
- National and local HCV networks (multidisciplinary and multiagency)
- **National targets on HCV treatment, disease and prevalence (by 2024)**
- Non-medical staff trained to deliver DBS testing
- **Majority treatment now delivered in community (e.g. drug services, prisons) by specialist nurses**
- National Surveillance / Monitoring systems
- **Research evidence informing policy/practice**

HCV viraemia prevalence (%) among attenders at NSP services in Scotland by survey year

(Source : NESI data)



Key features common to countries making progress on HCV elimination among PWID

- Government commitment
- **National HCV Strategy and Targets**
- Nationally negotiated contract with pharma reducing drug prices
- **National HCV surveillance / monitoring systems, particularly biobehavioural surveys of PWID**
- Strong civil society/community involvement
- **Extensive harm reduction programme**
- Multi-disciplinary and -agency approach
- **Free HCV testing and treatment, delivered in harm reduction services and prisons**
- **Continued monitoring, evaluation and innovation to address barriers**

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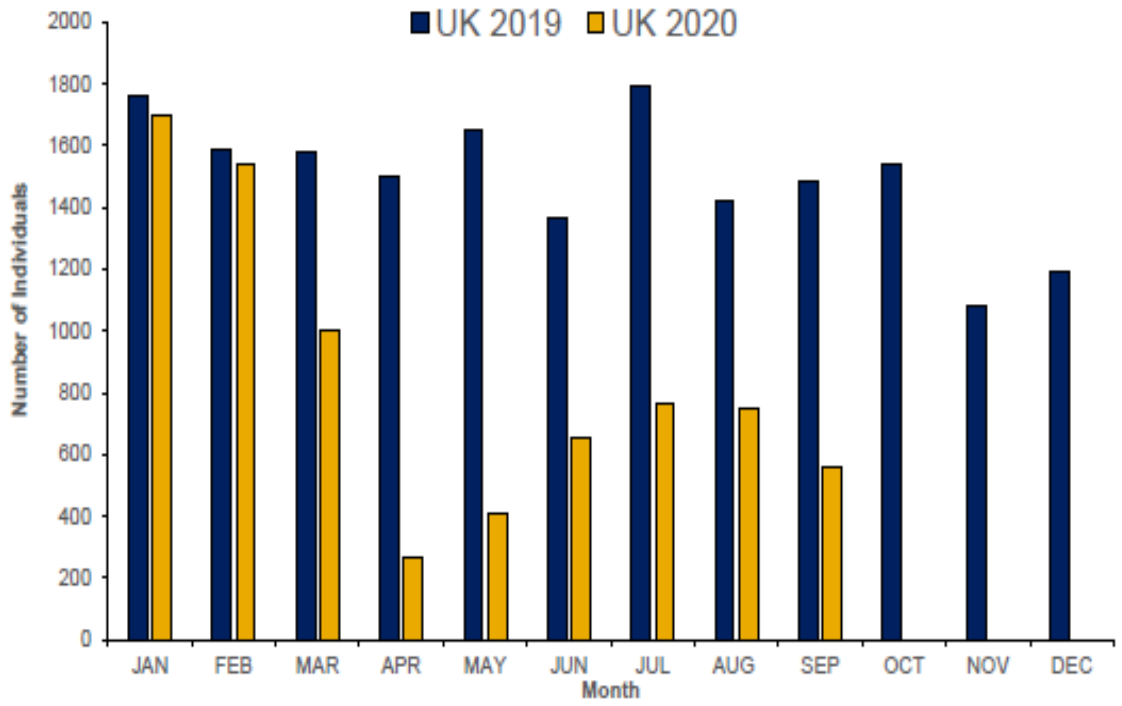
Impact of COVID-19 pandemic on HCV diagnosis and treatment in the UK

(UK Hepatitis C Report, PHE 2020)

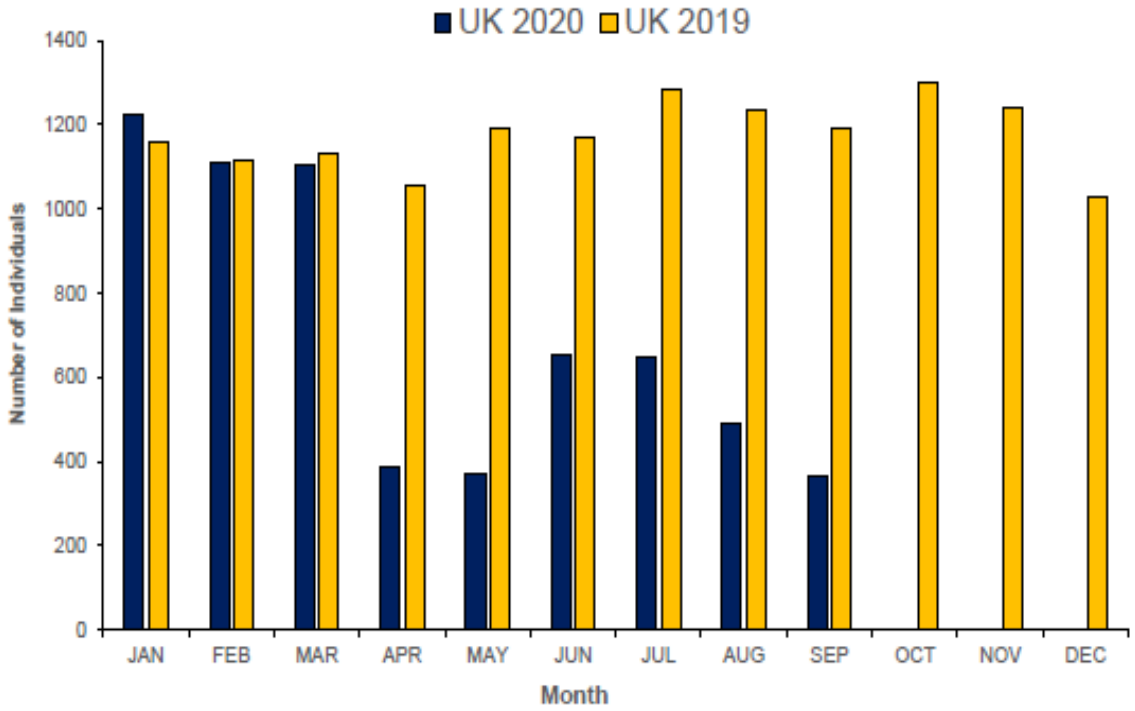
New HCV diagnoses

Figure 12. Number of new diagnoses of HCV in the UK, January to September 2020 compared to those in 2019*



HCV treatment initiations

Figure 13. Number of hepatitis C patients initiating treatment in the UK*, January 2020 to September 2020** compared to those in 2019



Impact of COVID-19 pandemic on HCV prevention services and mitigation measures introduced in Scotland

(Trayner K, et al. INHSU 2021)

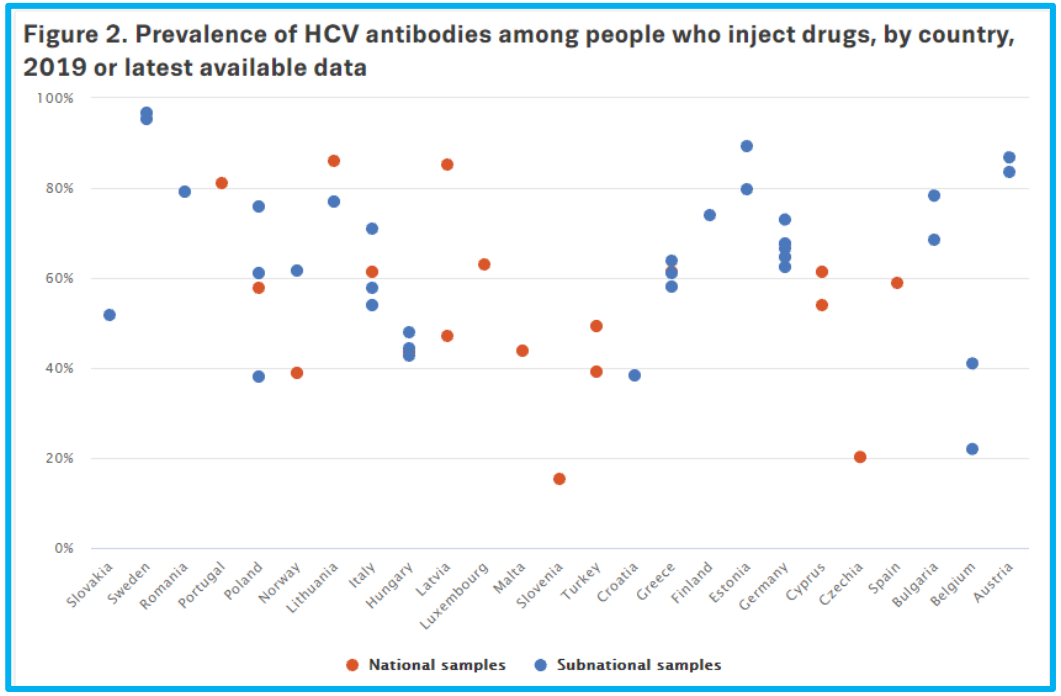
	Impact of COVID-19 on service delivery	Mitigation measures introduced/enhanced
Needle and syringe provision (NSP)	• **Closure, reduced opening hours and face to face services** ceased/reduced • Reduced footfall at NSP sites • **Increased waiting times/queues at IEP sites** due to social distancing	• **Delivery, postal and 'click and collect' NSP** • Extended opening hours (in some services that remained open) • **Individuals encouraged to take a 14 day supply** at each transaction • **Secondary NSP distribution encouraged** • **Outreach**
Opioid substitution therapy (OST)	• **Reduction in capacity to see patients in person** at routine clinics/primary care in some services • **Reduced capacity to initiate new OST patients** (including those released from prison) in some services • **Increased waiting/times queues in community pharmacies** due to social distancing	• Relaxing of dispensing policies and **shift from supervised OST to take home** (for those appropriate) • **Increase in dispensing instalment intervals** (**shift from daily dispensing to once/twice weekly**) • **Phone appointments** (face-to-face available for those deemed highest risk) • Home visits introduced in some services to replace appointments • Self-referral in some services • **Peer support and OST delivery for those shielding/isolating** • Additional clinics set up to offer OST to those not on prescription • **Introduction and trials of long acting injectable OST** in some areas • Shift towards buprenorphine prescribing in some areas
BBV testing	• **Dried blood spot (DBS) testing capacity reduced** (due to laboratory capacity in some areas and staff sickness/shielding/reallocation) • Third sector BBV testing suspended/reduced • **Reduced face-to-face contact and thus reduced testing opportunities**	• Self-sampling DBS testing • Point of care testing • **Outreach**

Key areas to support elimination of HCV among PWID

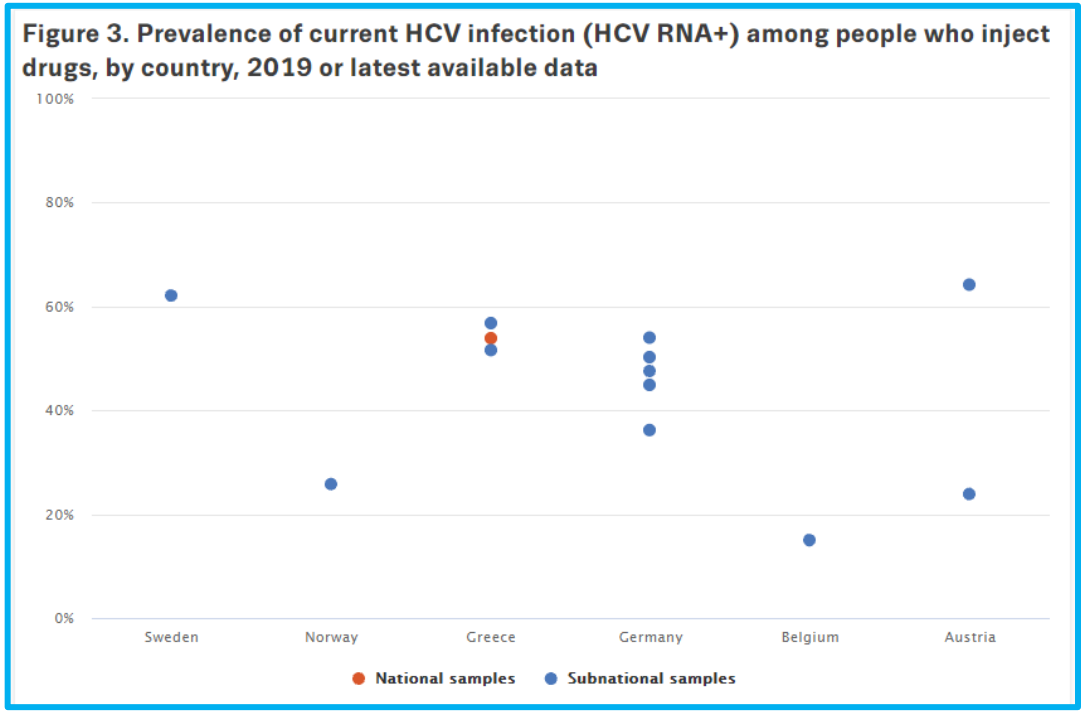
- Harnessing pandemic developments :
  - Expansion in diagnostic and testing capacity
  - Real-time monitoring / surveillance
  - Vaccine development
- Continued evaluation and innovation in relation to:
  - Testing /screening approaches (e.g. rapid/POC, reflex, universal/opt-out policies)
  - DAA treatment (e.g. pricing models, non-specialist prescribing, incentivisation)
  - Stigma and Discrimination (e.g. decriminalisation, education)
- Large-scale investment in evidence-based interventions (including OST and NSP) to address health and social needs of PWID

Major and rapid improvement needed in measuring progress on HCV elimination among PWID

25 countries have recent data on anti-HCV prevalence among PWID in Europe



6 countries have recent data on HCV viraemia prevalence among PWID in Europe



European Monitoring Centre for Drugs and Drug Addiction

Elimination barometer on viral hepatitis among people who inject drugs in Europe | www.emcdda.europa.eu

Conclusions

- **Accumulating evidence from a number of countries that it is not only feasible to majorly scale-up DAA treatment among people who inject drugs but leads to immediate reduction in HCV prevalence at the population level**
- Coordinated strategies embedding HCV testing and treatment within enhanced harm reduction services has been central to success to date
- **COVID-19 has prompted urgency to adapt and innovate, creating new opportunities to strengthen hepatitis C elimination efforts**
- Similar urgency is needed to develop surveillance systems to monitor progress of HCV elimination among people who inject drugs