

The logo for the British Viral Hepatitis Group (BVHG) features a stylized red and white 'B' icon to the left of the text 'BVHG' in white, all set against a green rectangular background.

British Viral Hepatitis Group

The logo for the British Association for the Study of the Liver (BASL) features a stylized red and white 'B' icon to the left of the text 'BASL' in white, all set against a dark blue rectangular background.

British Association for the study of the Liver

BVHG/BASL Best Practice for ODN stakeholders meeting

11–12 January 2018

The Britannia Country House Hotel, Didsbury

Welcome and introductions

Ahmed Elsharkawy and Matthew Cramp



Housekeeping

Switch phones to silent during the meeting

The meeting is being recorded to inform a post-meeting report

There is no planned fire alarm test today

See Cello Health at the registration desk for accommodation queries

Please complete the evaluation form, message card and action card
at the end of the meeting

Objectives

Explore the critical challenges facing ODNs in England and discuss barriers and opportunities to overcome these issues

Share knowledge and best practice of excellence in ODN working – more importantly perhaps share what works and what does not work in delivering HCV services

Provide a platform for key ODN stakeholders to network and build good relations with peers and BVHG representatives

Discuss strategies to achieve HCV elimination targets



Agenda – Day 1

Time	Session	Speaker/facilitator
13:30	Welcome and introductions	Ahmed Elsharkawy and Matthew Cramp
<i>Perspectives on key challenges in the treatment and management of HCV</i>		
13:35	State of the nation	Graham Foster
13:45	Hub perspective: Key challenges	Mark Aldersley
14:00	Spoke perspective: Key challenges	Adam Lawson
14:15	Pharmacy perspective: Current challenges in HCV treatment	Adele Torkington
14:30	Nursing perspective: Treating an increasing challenging population	Janet Catt
14:45	Drug and Alcohol Perspective: Barriers to HCV delivery	Stacey Smith
15:00	Peer support	Stuart Smith
15:15	Panel discussion	Session speakers (Chairs: Ahmed Elsharkawy and Matthew Cramp)
15:35–16:05	Break	

Agenda – Day 1

Time	Session	Speaker/facilitator
<i>Viral hepatitis elimination</i>		
16:05	PWIDS in Scotland	Jan Tait
	The lost positives: How to find and engage lost positives	Stuart McPherson
	Community HCV models: Engaging the disengaged	Sumita Verma
	Isle of Wight experience	Ryan Buchanan
	Manchester elimination plans	Andy Ustianowski
	Measuring patient outcomes and experience	Charles Gore
17:20	Panel discussion	Session speakers (Chairs: Will Gelson and Mark Wright)
17:40	Day 1: Summary	Ahmed Elsharkawy and Matthew Cramp
18:00	Meeting close	
18:30	Poster presentation, dinner and networking	

State of the nation (Networks today and tomorrow)

Graham R Foster

Professor of Hepatology
QMUL/Barts Liver Centre



Where we started



Where we started

- Idiosyncratic national service
- (Some good bits, some bad)

- No monitoring, planning, oversight

- Therapy depended on where you lived



Where we started

The first two years

- Clearing the site
- Setting up a national service with allocation of treatment slots by local need
- Getting drug prices to a sensible level



Clearing the site

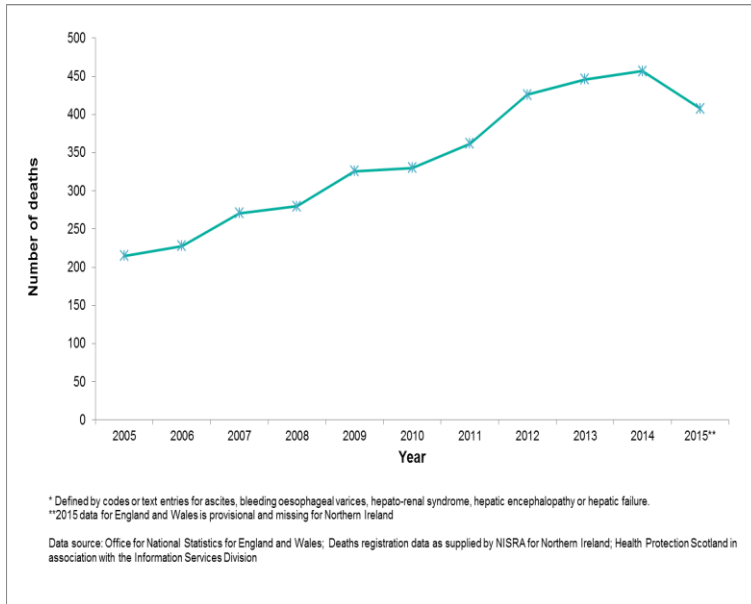


Early planting

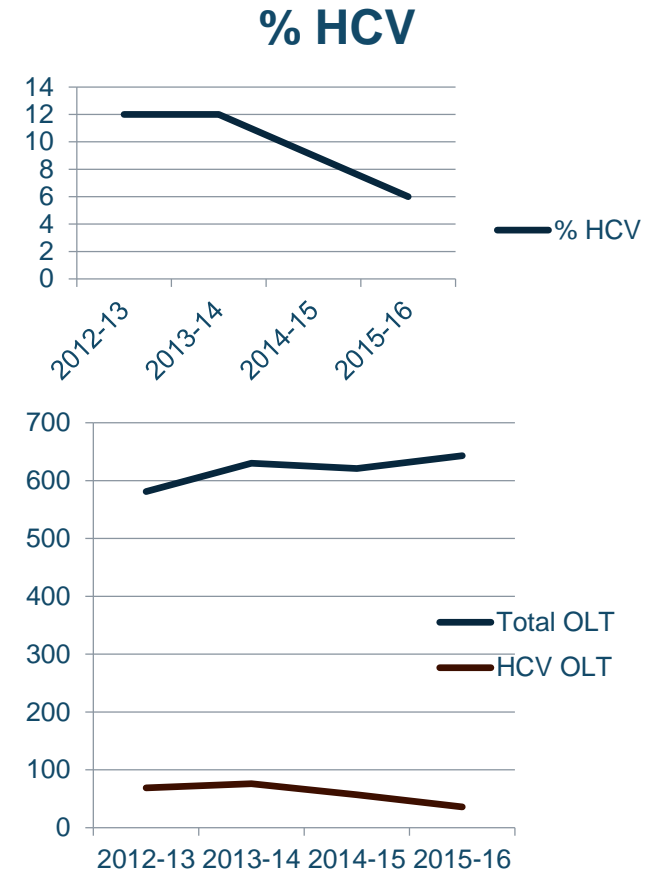
- Early access programme for decompensated cirrhosis (NOT supported by NICE)
- ‘Run-rate’ in line with NICE prioritisation ruling
- Focus on cirrhosis



Impact of therapy on mortality



Deaths from HCV or HCC
in patients with HCV
(PHE report on HCV 2016)



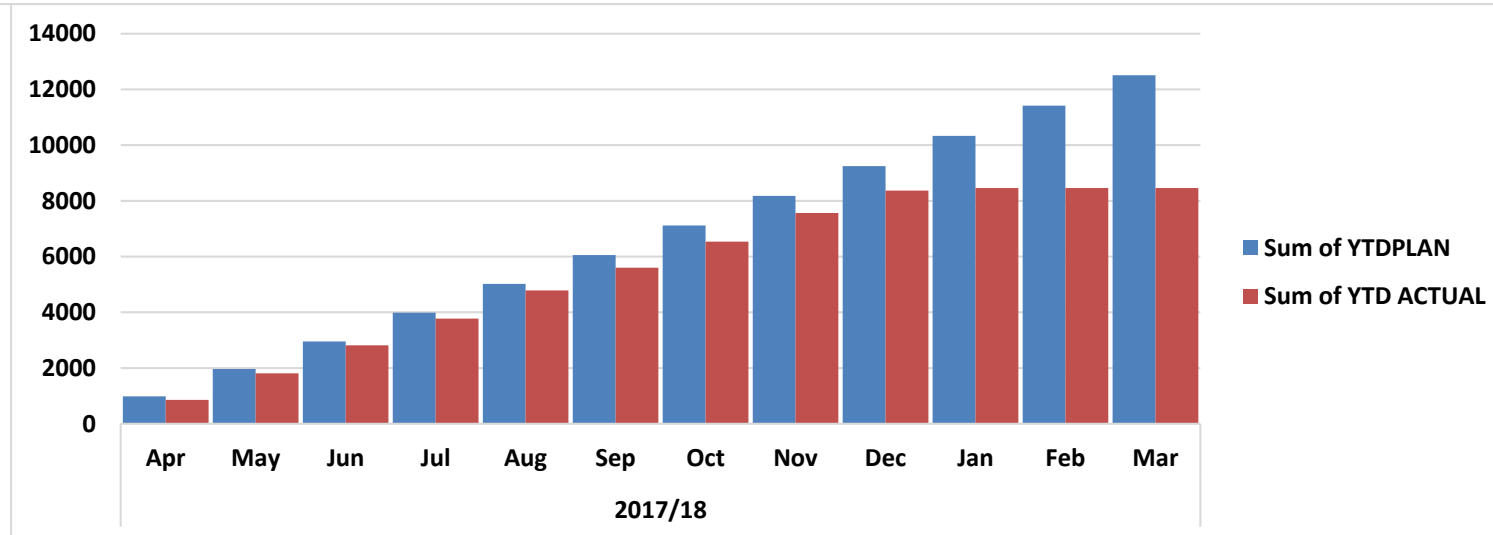
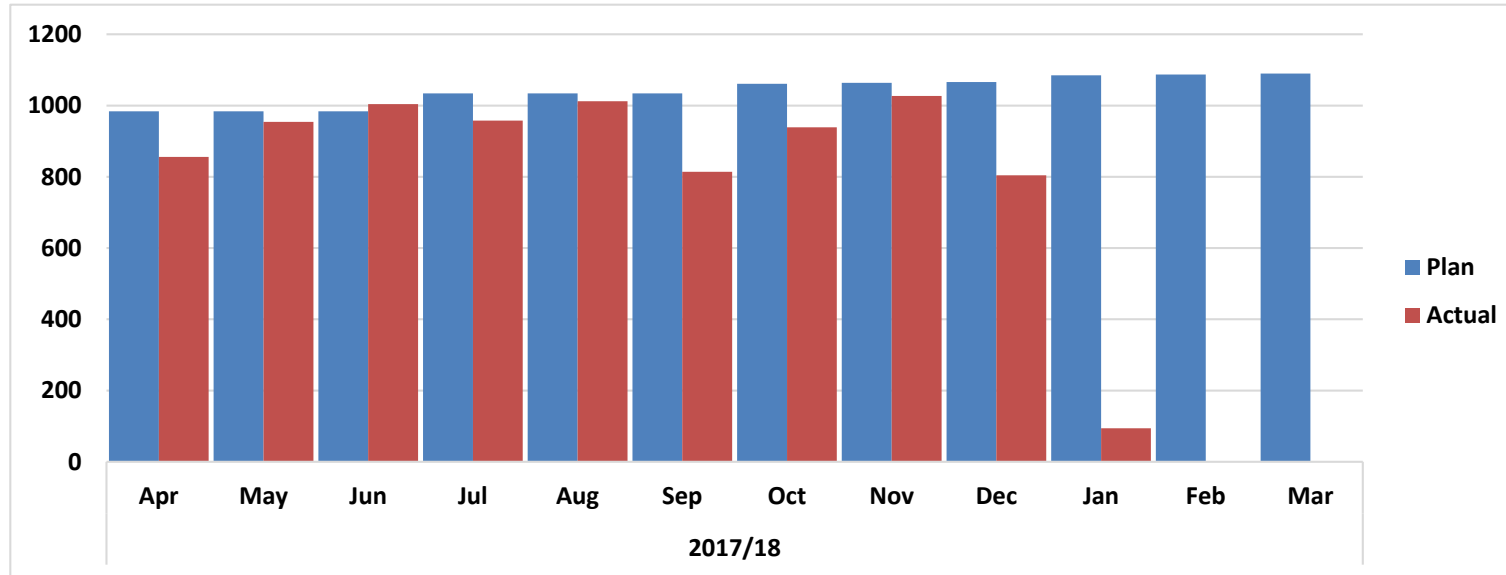
Transplants for HCV

Information

- Data is key to clearing HCV
- We need to know about who needs what to expand (? help with prisons, drug services, etc)
- We need to know which areas are undertreating, which prisons are underserved, which addiction centres are failing etc etc

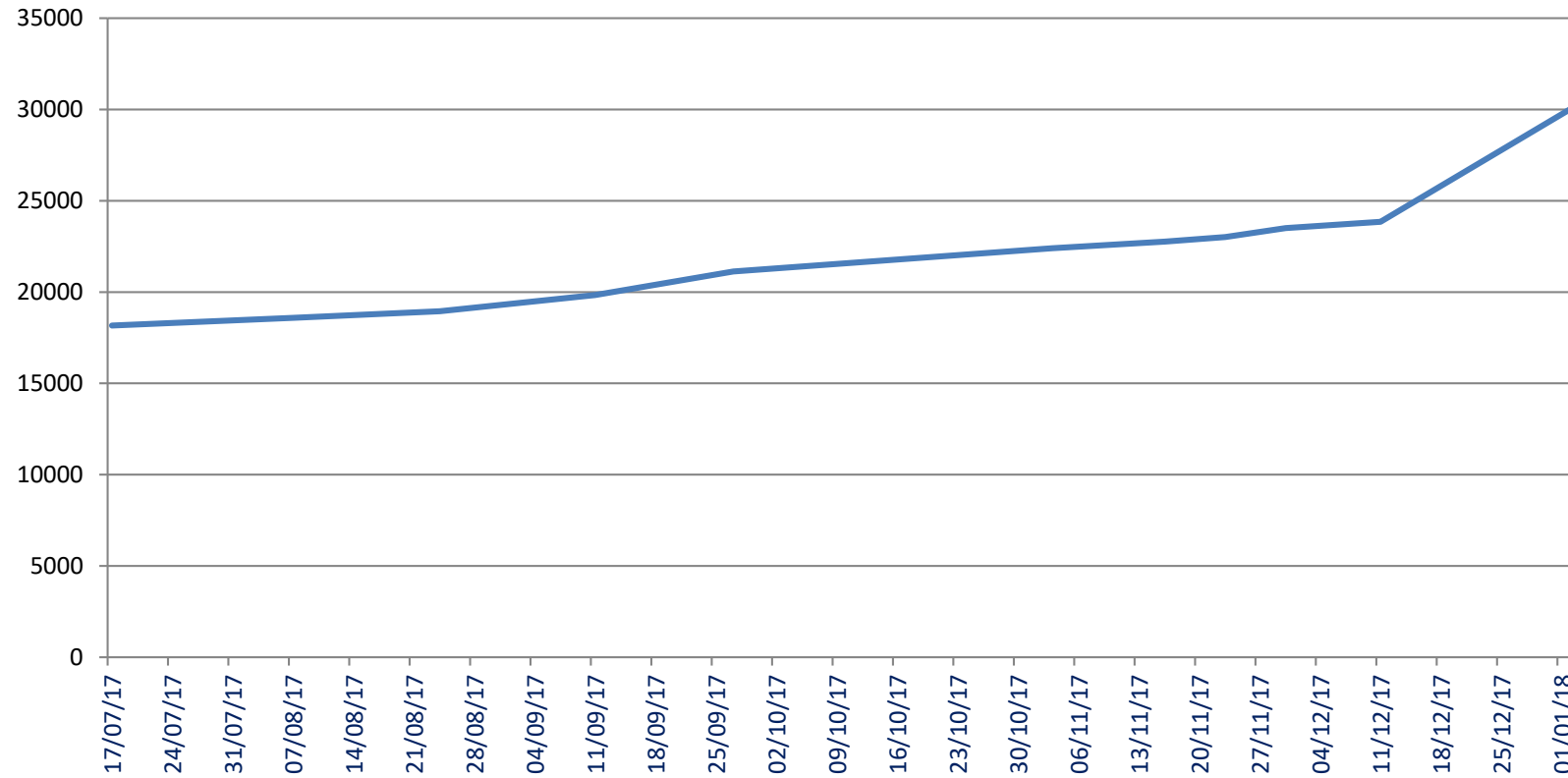


Information transfer



The Registry

Total no. of patients shown on the registry (manual + imported)



The Registry

- The registry is now signed off – regular reports will be available online shortly.....
- PHE have agreed to supply details of ‘previously diagnosed’ patients
- Tells us what more you want



What next?

- Now we have cleared the ground what do we plant?



What next?

- Now we have cleared the ground what do we plant
- We need to go for transmitters and those at risk – PWIDs, prisoners, infected in the 70s



What we need?

We need:-

- Unlimited treatment capacity
- Reduced obligatory testing
- Engagement with related services
- Help finding patients



What we need?

We need:-

- Unlimited treatment capacity
- Reduced obligatory testing
- Engagement with related services
- Help finding patients

- **We don't need choice of drug**



Getting what we need?

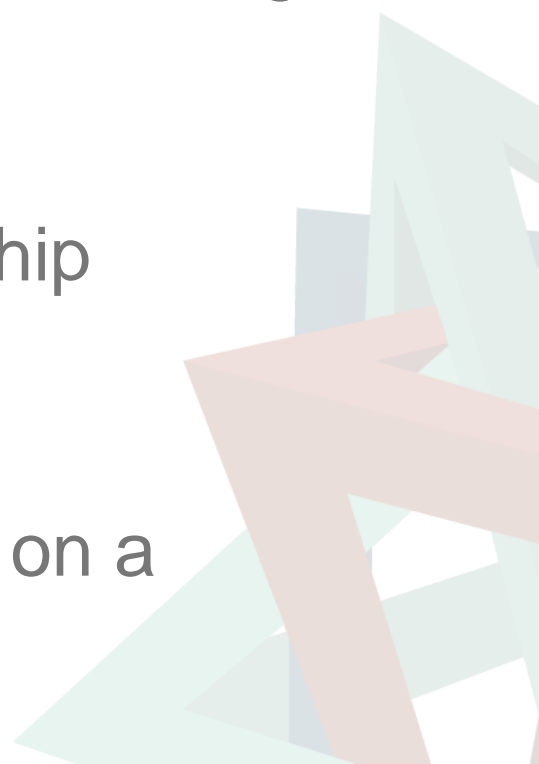
Lord O'Shaughnessy 9 Jan 2018:

(Under Secretary of State for Health)

Launched first step of the new HCV procurement process inviting industry to show support

Aim is to eliminate HCV with a long-term partnership with industry

Support is contingent upon pharma working with us on a new, better deal



Getting what we need? 'Australia +'

- The Australia deal will not work for us
- Our problem is undiagnosed patients NOT untreated patients
- We are asking for deals that incentivise pharma to help us case find



Going Forward

Please:-

- Engage with your drug services, prisons etc
- Engage with industry – tell them what you need
- Tell us what you need us to do to help

- Play for Team NHS



Towards Elimination

- We (NHSE and ODNs) have prepared the plot
- We have harvested the early stuff
- Now lets go and harvest the rest



Far, far better than the Australians



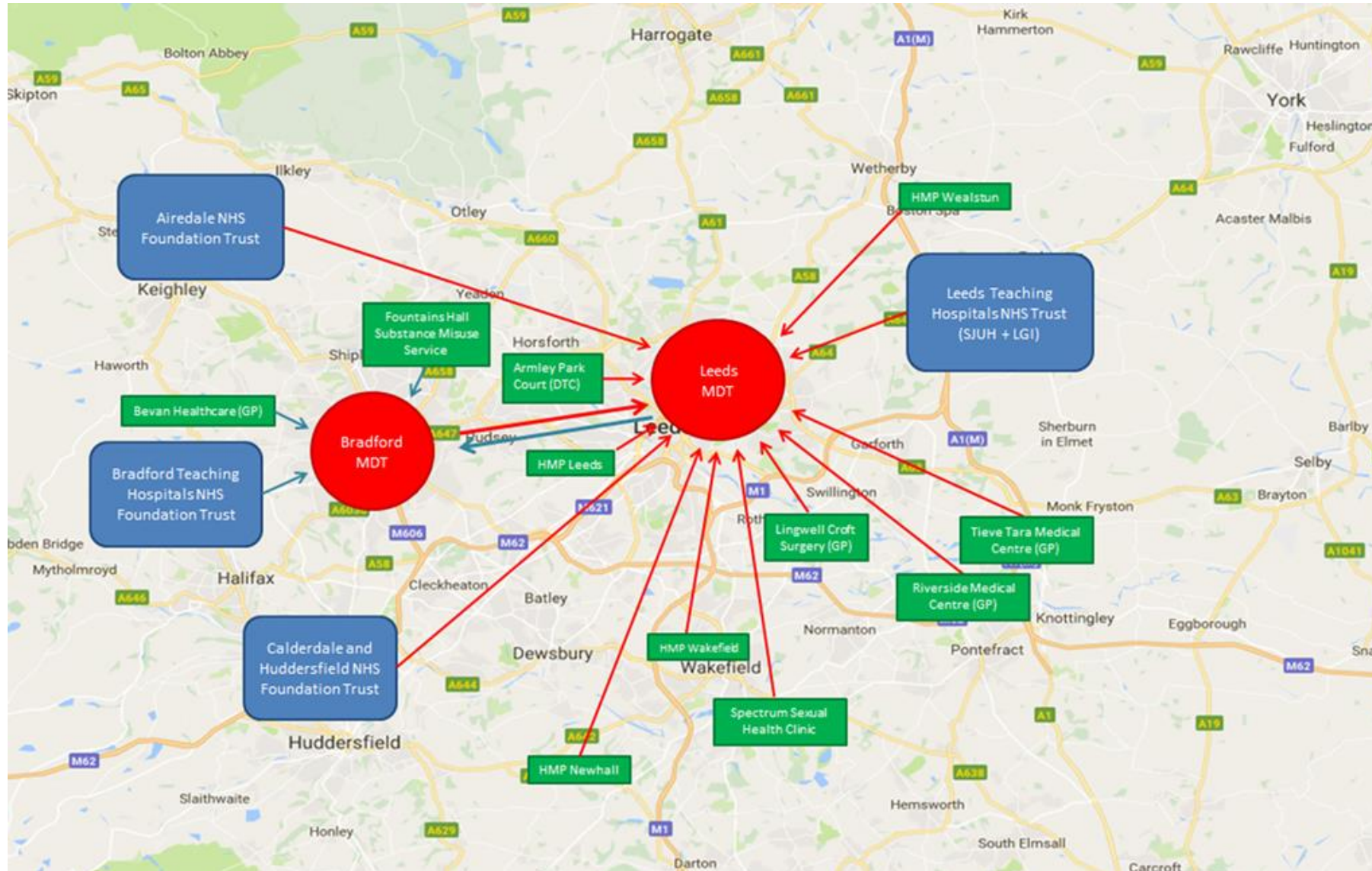
Hub perspective: Key challenges

Mark A Aldersley

West Yorkshire HCV ODN Clinical Lead



Geography/Structure



Challenges

- Other Secondary Care Centres
- GU Medicine Centres
- Community Drug Treatment Centres
- Primary Care Centres
- Prisons
- Access to Testing
- Financial
- Geographic
- ODN Lead Clinician



Other Secondary Care Centres

- Motivation
- Staffing (nursing and medical)
- Resourcing appropriately
- Loss of autonomy
- Loss of income
- Performing time-consuming tasks eg 12 month post treatment PCR with no reason/benefit for anyone



GU Medicine Centres

- Tendering of services
- Integration of treatment
- Space
- Loss of autonomy



Community Drug Treatment Centres

- Short-term tendering for services
- Staffing levels
- Staff turnover
- Training
- Space availability competing services



Primary Care Centres

- Some GP practices very motivated, others little interest
- Public Health perspective
- Most have space
- Convenient but attendance still variable



Prisons

- Tendering for services by healthcare providers
- Staffing of BBV nurses/healthcare
- Governor Priorities other than HCV
- Training
- Access



Access to Testing

- Drug treatment centres/pharmacies/primary care
- New GP registrations
- Emergency Department
- Immigration Centres
- Community Centres
- Funding? Short-term drug tendering makes pharma reluctant to fund



Financial

- What is a CQUIN?
- Use to motivate other secondary care centres?
- Loss of income if treatment devolved to larger centres



Geographic

- Some ODNs have huge geographical distances to cover
- Moving staff around inefficient and moving the patients impractical as try to treat patients who do not wish to attend hospital
- Pharmacy-who pays?
- GPs – only small numbers motivated



ODN Lead Clinician

- Public Health Training



ODN Lead Clinician

- Public Health Training
- Time provision
- Clerical/Administrative Support



Conclusion

- Elimination strategy with no funding other than for the drugs
- The clinicians leading it have no training in the field
- Unable to provide resource to spokes or community based programmes
- Who is responsible for the massive increase in testing required to achieve elimination?





Spoke perspective: Key challenges

Adam Lawson

Consultant Hepatologist, Royal Derby Hospital



Challenges

- Find, keep, treat (eradicate)
- Working within the ODN structure

HEPATITIS C COALITION

REPORT ON THE OPERATIONAL DELIVERY
NETWORKS

DECEMBER 2017



2014

Looks like we are finally going to have some new treatments for HCV



Bit of form filling (A1 – F), an MDT to phone into and some "buddy" stuff, but you can start treating your sickest patients on EAP now



2015

EAP finished, but NHSE have announced bids for ODNs to deliver new HCV drugs. Sounds like the liver plan rehased for HCV, but you need to be in it to win it

I thought the new drugs were meant to make it easier. Why put the decision making in hospitals, where the patients never turn up? 🤔



Phew, just met the deadline for getting all those submission docs in for Derbyshire/ Staffordshire ODN expression of interest

Oh you can't apply, you're not a HPB cancer centre

Whats that got do with treating HCV 🤔🔴

2016

Despite run rate, have cleared waiting list. Phoning into ODN MDT a pain though

Get the nurses to do it, even better get hub to use CQUIN to pay for new nurse to do it



2017

Still not got new nurse. Trust don't believe another hospital paying. 😭

Need to start finding more patients, but can probably live with this ODN stuff

That's fortunate, because they're rolling it out for PBC and obeticholic acid



And any new HBV drugs will be next





Nottinghamshire, Lincolnshire and Derbyshire ODN

Derby
Dr Adam Lawson
Dr Andy Austin
Dr Nick Taylor
Dr Evi Mandalou
Michele Jackson
Gillian Wilkinson

Local MDT ✓
Category B prison – inreach ✓
Women closed prison – inreach ✓
Fibroscan 402

Lincoln
Dr Aravamuthan Sreedhavan
Dr Rashaad Gossiel
Karen Murray

Local MDT ✓
Category B prison – inreach ✓
Fibroscan 430 mini

● Nottingham
Dr Steve Ryder (ODN lead)
Dr Brian Thomson
Dr Emile Wilkes
Dr M James (Clinic in Grantham)
3 WTE viral nurse specialists (Kate, Sherelle, Liz, Jasmina)

ODN MDT ✓
2 x Category B and 1 x Category C prison – inreach ✓
Fibroscan ✓

Boston
Dr Sanjiv Jain
Maxine Myers – 15hrs

Local MDT ✓
Category D prison – inreach ✗
Fibroscan ✗

**Teleconference ODN MDT
Thurs 13.00**



Different spokes

Derby ●

4 clinicians, 2 nurses

Qtr 4 2016/17 to end
Qtr 3 2016/17 treated
86* patients

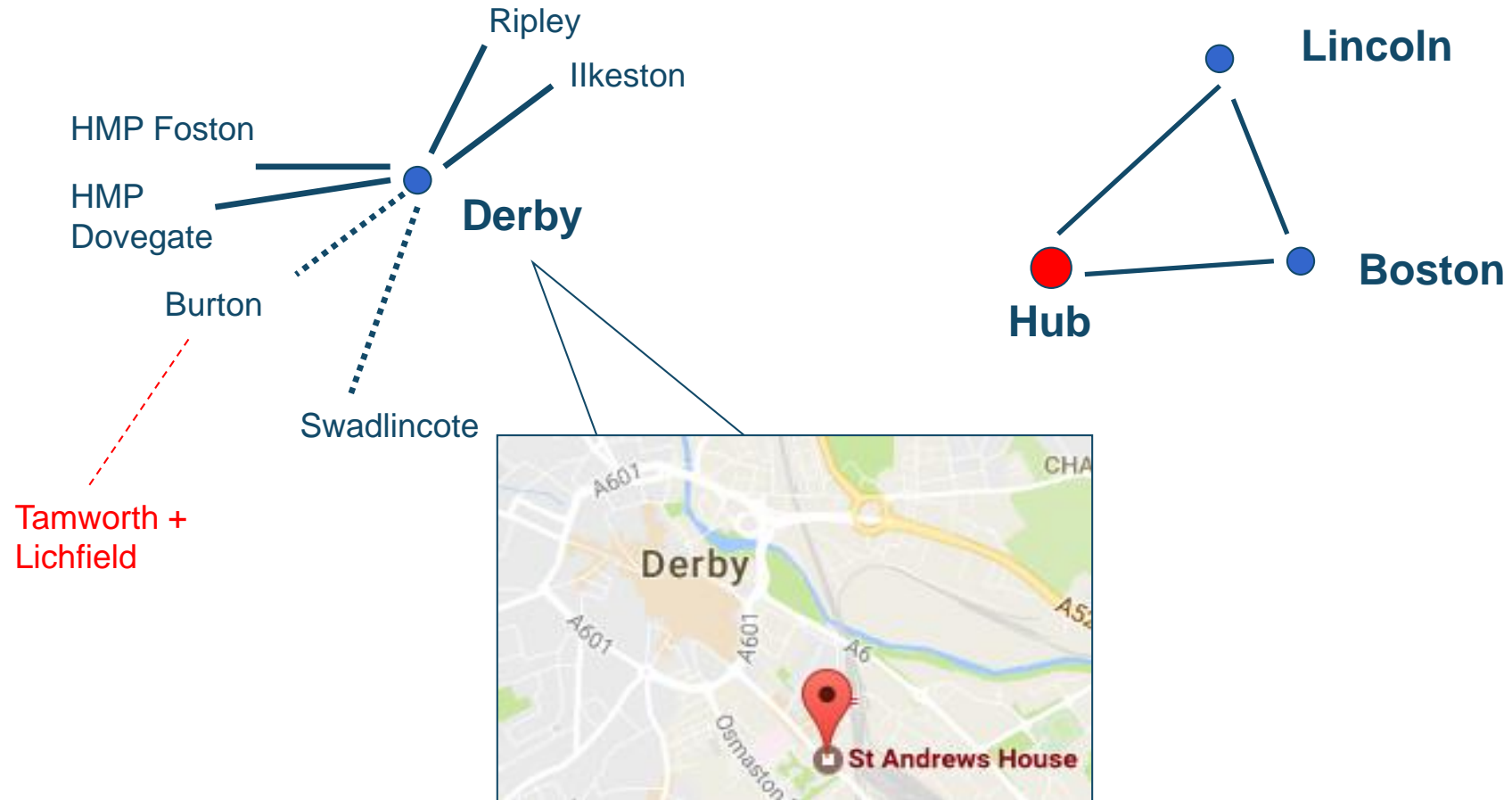
● Boston

1 clinician, 1 nurse

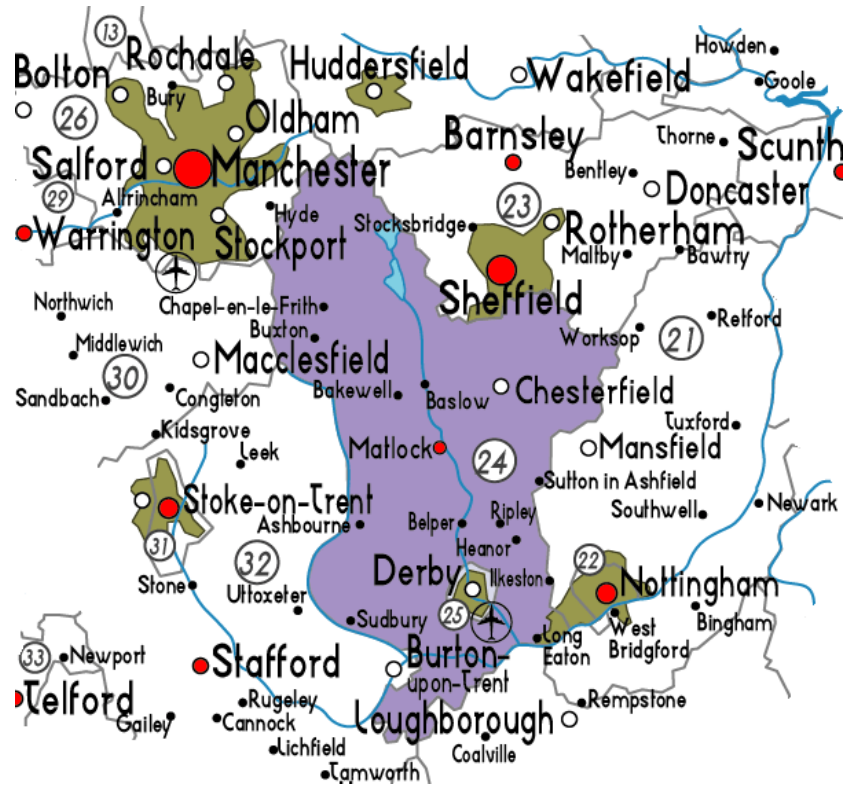
Qtr 4 2016/17 to end
Qtr 3 2016/17 treated
26 patients



Different spokes



Geography – CCGs and ODNs



South Derbyshire Improving Pathways Task and Finish Group

2nd November 2017

1. Welcome and Introductions

Iain Little, Consultant in Public Health, Derbyshire County Council (Chair)

Michele Jackson, Nurse Specialist, Royal Derby Hospitals

Gillian Wilkinson, Nurse Specialist, Royal Derby Hospitals

Dr Adam Lawson, Consultant Hepatologist and Gastroenterologist, Royal Derby Hospitals

Breanne Dilks, ODN Manager

Nik Howes, Commissioning Manager Substance Misuse, Derbyshire County Council

Jane Careless, Senior Public Health Manager, Derbyshire County Council

Jo Seekings, Commissioning Manager, Derby City Council

Heather Walker, Service Manager, Derbyshire Healthcare Foundation Trust

Linda Drew, Public Health Manager, Derbyshire County and City Council

Apologies

Barry O'Neil, Service Specialist, Specialised Commissioning NHS England

Dr Steve Ryder, ODN Lead and Consultant Hepatologist and Gastroenterologist, Nottingham University Hospitals

Martin Smith, Recovery Lead, Derbyshire Healthcare NHS Foundation Trust

Yvonne Bell, Senior Harm Reduction Nurse, St Andrews House

Top/down – back to front?

The view of ODNs from the spoke

Pros


- Driven local good practice – more formal, well documented local MDT
- Sharing good practice – Network of colleagues whose experience you can draw on (though this preceded ODN)
- Access to trials



- Sharing of resources? – nurses/ fibroscan (Boston to Nottingham 120 mile round trip)
- Small volume centres able to continue to see patients locally with ODN support
- The *potential* for CQUIN targets to act as a lever in engaging with commissioners/ laboratory/GPs etc

The view of ODNs from the spoke in the wheel

Cons


- Additional layer of bureaucracy – missing that one opportunity. Lack of flexibility – see patient, bluteq, prescribe, treat
 - Cost of managing the bureaucracy – ODN managers, MDT coordinators; ? Better spent on frontline staff
 - Inefficiency – telephone ODN MDT “very difficult to hear and feel engaged in conversation” “just reading off a list” – that has already been emailed
 - Centralising services – is there any longer a reason why a HCV infected patient need visit a hospital?
 - Target culture – email traffic at end of each QTR
 - Viral hepatitis nurses filling in spreadsheets rather than seeing patients
- 

What do spokes want from ...

Hub

- Day to day light touch/ no touch
- Continued sharing of experience/ national agendas
- Transparency re CQUIN

NHSE

- End to treatment numbers – treatment to who needs it and when they are ready (including ability to see and treat pre MDT if 1st line choice and straightforward)
 - Feedback on the use of all the data trusts are sending
- 

Summary: Challenge 1

Prisons – Timing of opt out testing, retention of medical centre staff

Can identify patients in **DTCs**, but retention for long enough to treat difficult

Find, Keep, Treat, eradicate

On the back of **HIV** testing in ED (Derby > 2/1000 prevalence)

Reducing delays between seeing and treating.
Waive need for MDT decision in straightforward cases
– ie almost all

Improve delivery times and dispensing closer to patient



Summary: Challenge 2

Should not be one size fits all

Transparency re CQUIN. ODN “accounts”

Make primary concern of ODN the adoption of good practice/ elimination strategies

Working within ODN structure

Reduce duplication of effort. ODN MDT for non 1st line Rx/ difficult cases only. Scrap buddy system

Challenge NHSE re output from data being submitted

Avoid the reflex to make ODNs the blueprint for use of all high cost drugs. Take in to account unseen staff costs





Pharmacy perspective: Current challenges in HCV treatment

Adele Torkington



Current Challenges

-
- NHSE
 - CQUIN
 - Cost of regimens
 - Patient cohort
 - Run rates
 - Rate cards
 - Spreadsheets
 - Transport/logistics for community clinics



The Community Pharmacy Model

Current community model

Hep Clinic staff see patient in drug services/prison and prescribe medicines



Hospital pharmacy/Outsourced pharmacy supply medication and transport to clinic. Clinic staff need to store medication as per hospital standards



If a patient does not start treatment, most hospital pharmacies will not return medication



Payment for outsourced/homecare



Current Opportunities

-
- CQUIN – funding for pharmacists
 - Potential for future savings
 - Finding the undiagnosed
 - Treating the DNAers
 - Eradication
 - Pharma projects and education
 - DOT in the community
 - Online community of pharmacists



Future community model

Community Pharmacist
tests for HCV

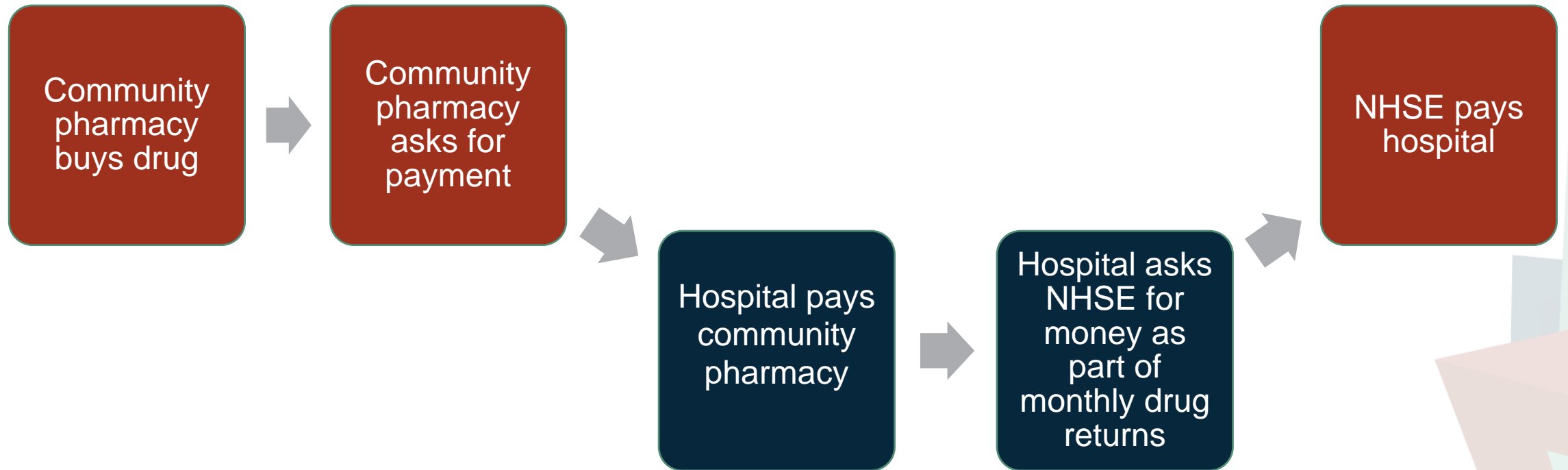


Community Pharmacist
gives a positive
result/liaises with ODN
and provides HCV
treatment off the shelf and
supervises consumption

Current logistical issues



Preferred community model



Any questions?



Nursing perspective: Treating an increasing challenging population

Janet Catt MSc RN, Nurse Consultant

and

Chris Laker, Hep C Peer support



“Follow me” South Thames project

- Develop a network of Peers that will reach into the community of PWIDs across the South Thames local area
- Peers will use their own story
- “Buddy” support, in particular to newly diagnosed people and those accessing treatment
- Patients known to local drugs services/hostels that have previously tested HCV+ and have disengaged will be linked to the Peers
- Peers will have the ability to make direct referrals to clinic
- **(Pharmacy project now referring directly into the clinic – incentivised project)**



Patient cohort

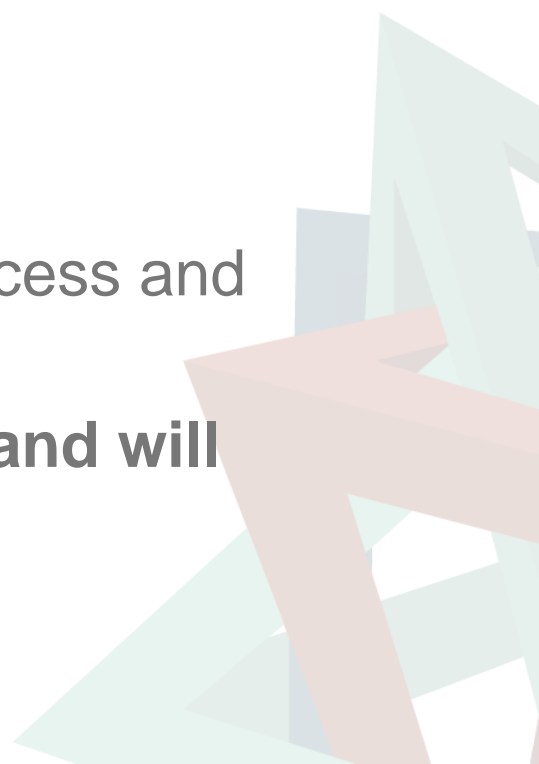
- Small number of patients so far – but the “word is out”!! – especially **“quick to treat” AND NO injections**
- **Three patients in Rehab – x1 discharged day before starting treatment due to using Heroin**

He re-engaged, started treatment and now in Rehab in South West England

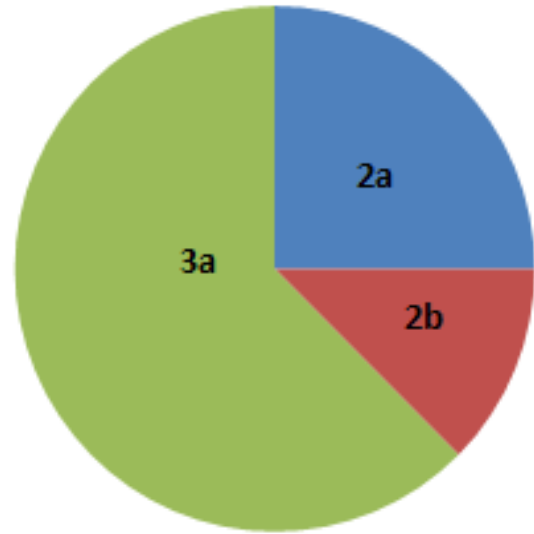
- x1 living with partner and on Methadone – engaged with drugs services, but not wanting to be treated there
- x4 living in Hostels (x2 significant mental health problems – CPN)
- **Other health issues: x2 cirrhosis; x1 sickle cell anaemia; x1 hard of hearing**



Referral process

- Friday morning clinic at Kings college Hospital – commenced end of October 2017
 - Chris will telephone to refer and confirm via email details of patient: **Name, DOB, NHS (if known), address** (x1 has been arranged one day before appointment)
 - Admin will be contacted to book appointment
 - Nurse will confirm appointment time with Chris – not rigid!!
 - Clinic: Bloods performed/Fibroscan – explain to patient MDT process and treatment regimens
 - Treatment start dates **one week or two weeks – Chris notified and will text remind patient OR attend clinic with them**
- 

Hospital clinic



Genotype



Average Fibroscan

Cirrhotic 27.5 kPa

Non-Cirrhotic 5.8 kPa

5 of 8

Commenced treatment

x3 To commence 19th January 2018


Drug and Alcohol Perspective: Barriers to HCV delivery

Stacey Smith



Perspective of drug services

The treatment landscape has significantly improved for drug users infected with hepatitis C. We believe in an holistic approach to treating substance misuse and there is a strong drive to lower the mortality rate

- Recognise that they hold a high risk cohort
 - CGL treated around 60,000 drug users in 2016
 - Have a comprehensive case management system so it can identify service users who could be infected
 - DBST is measured within projects
 - Strong service user and peer mentor network
- 

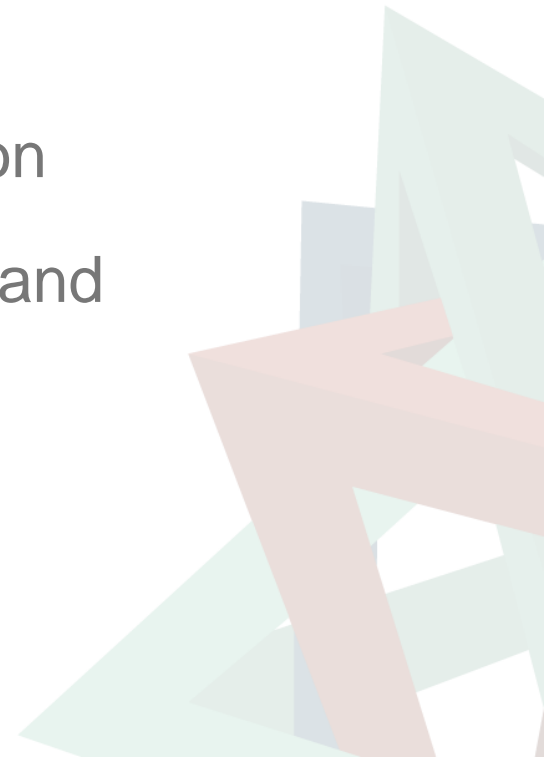
Delivery in drug and alcohol service

- Screening (Identification & Diagnosis) – DBST and delivery of test result
- Prevention – harm reduction, needle exchange
- Treatment – proactive partnerships
- Development of evidence based models – mobile, on site, specialist pathway and internal provision
- Partnerships – Hep C Trust, NHS, Service User Groups



Critical challenges and barriers

- Disparity on the role of Drug and Alcohol in Hep C treatment
- Funding for DBST and the need to retest
- Historical data – clients that have been sitting in services for long periods
- Ineffective models and dysfunctional pathways
- Cultures within services not seeing Hep C as a crucial intervention
- Service Users unaware of new treatments and still holding fears and concerns around previous treatment



PWIDs in Scotland

Jan Tait

Lead Clinical Nurse Specialist



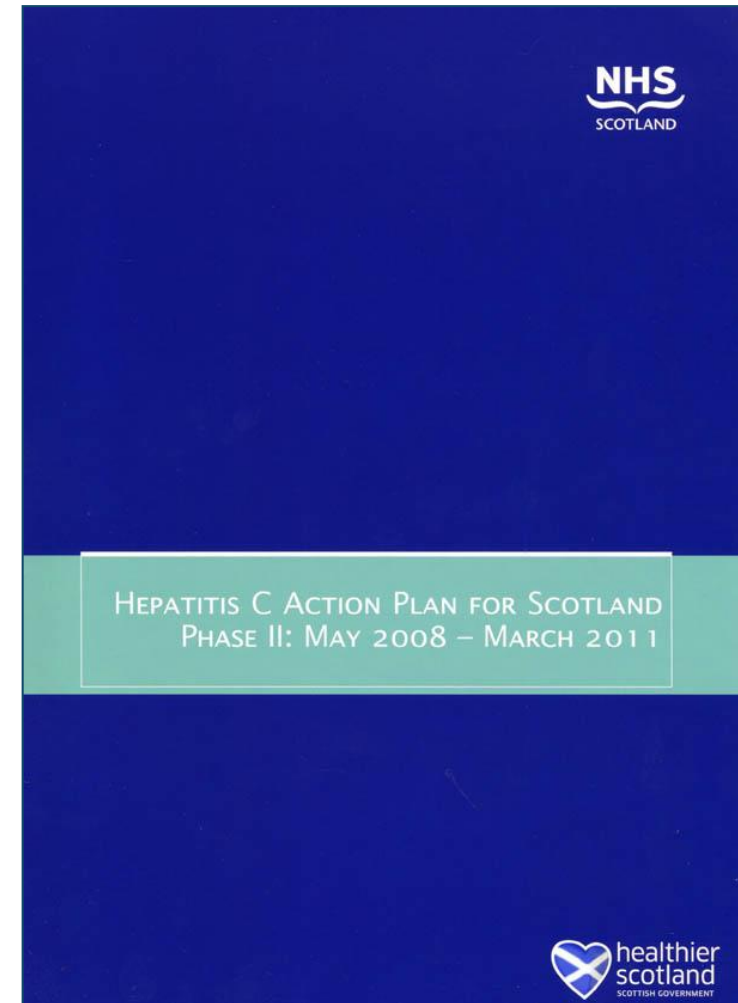
Scotland and Tayside HCV statistics



- Population of 5,295,000 (2011 Census)
- 0.8–1% of population HCV positive
- 50,000 antibody positive (38,000 chronic infections)
- 90% of new HCV transmissions are in people who inject drugs (PWID)
- 1 of 14 regions of NHS Scotland. Covers 3 distinct geographical areas: Dundee City, Angus and Perth & Kinross
- Higher proportion of drug related health issues in comparison to Scottish average

Scottish Hepatitis C Action Plan

- Aims:
 - To prevent spread of hepatitis C, particularly among intravenous drug users
 - To diagnose hepatitis C infected people, particularly those who would most benefit from treatment.
 - To ensure that those infected receive optimal treatment, care and support
- 2006: Launch of Scotland's Hepatitis C Action Plan Phase I: Development of a case for investment in Hepatitis C service provision
- 2008: Launch of Scotland's Hepatitis C Action Plan Phase II: Investment of **£43 million** for Hepatitis C prevention, diagnosis and care services during 2008–11
- 2011: Launch of Scotland's Sexual Health & Bloodborne Virus Framework (Phase I) incorporating continued investment in Hepatitis C services

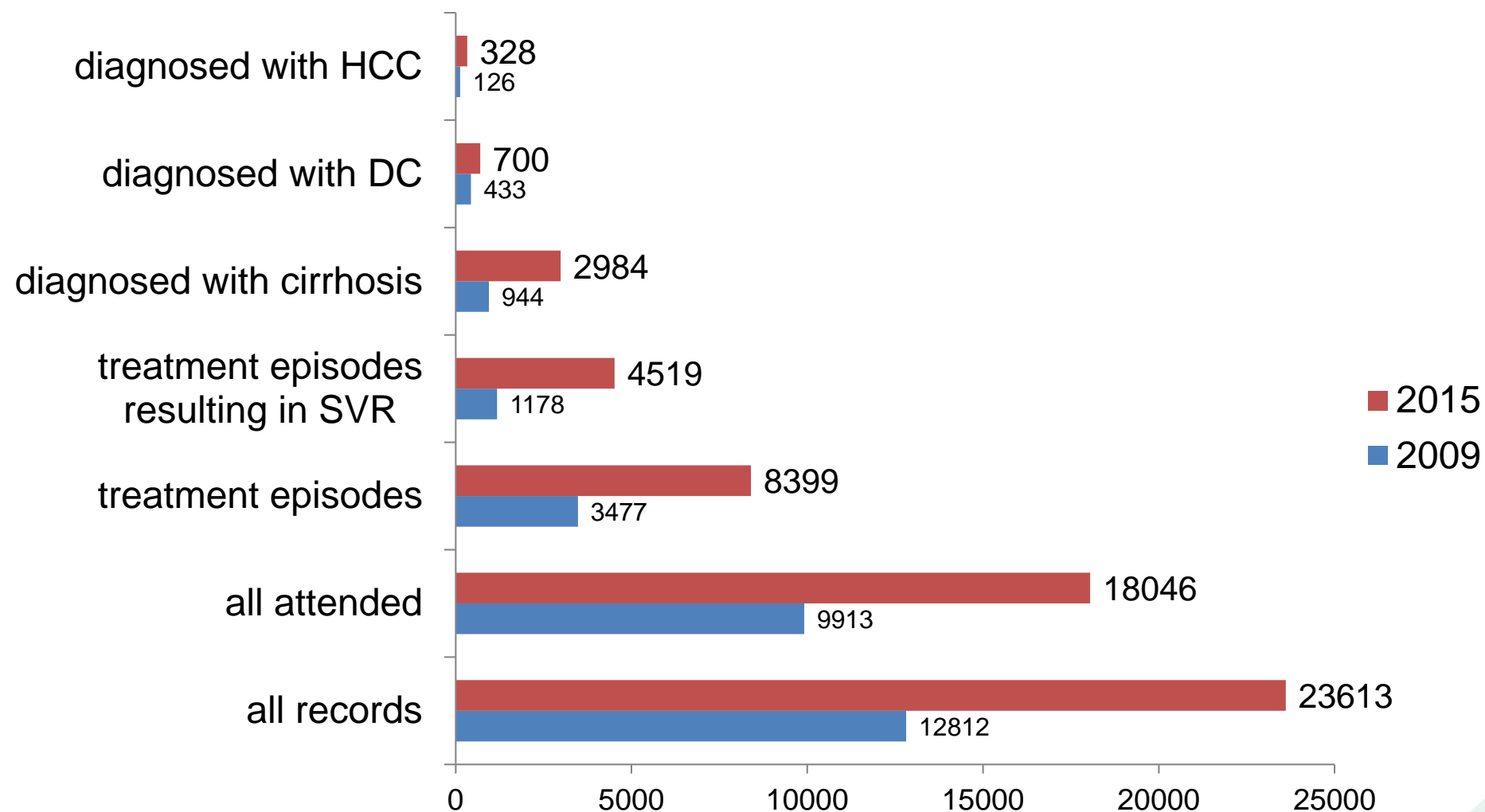


What were the challenges pre action plan?

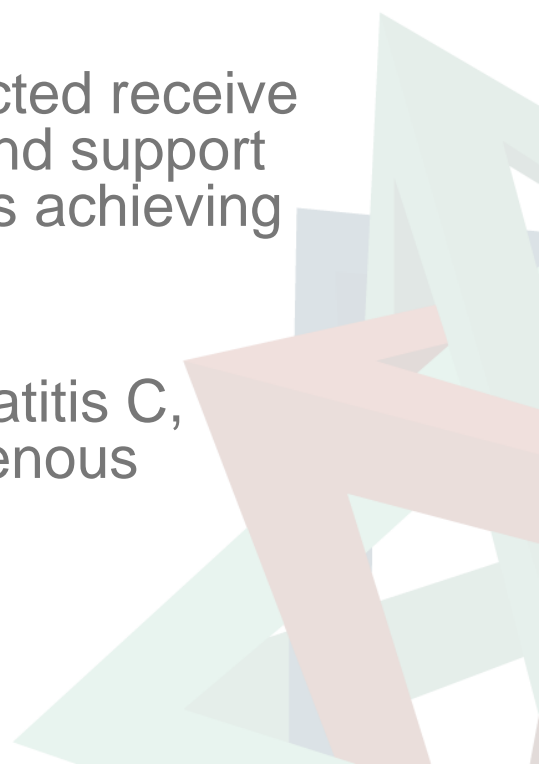
- 90% of individuals will be previous or current drug users
- 50% of diagnosed patients in 5th quintile (most deprived)
- Liver related deaths increasing per year, increasing admissions to hospital and hospital stay
- Lack of diagnosis, care and treatment
 - 14,500 diagnosed (38%)
 - 3,500 accessed care (9%)
 - 450 started on treatment per year (1%)



HPS: HCV database 2015



Tayside HCV Managed Care Network 2004

- Formed in 2004 by Professor John Dillon
 - Included:
 - Consultants and medical staff
 - Specialist nurses
 - Virologists
 - Pharmacists
 - General Practitioners
 - Drug Workers
 - Social Workers
 - Prison nurses
 - To increase the number of people diagnosed with hepatitis C infected people
 - Improve the number of people accessing treatment
 - To ensure that those infected receive optimal treatment, care and support and increase the numbers achieving SVR
 - To prevent spread of hepatitis C, particularly among intravenous drug users
- 

Interventions and outcomes

- Introduced outreach clinics throughout region and increased specialist nursing input
- Open referral pathway
- Nurse led pathways
- Dried Blood spot testing introduced in 2009
- Routine blood tests in drug services
 - 2003 = **1235 tested**, 2015 = **3512 tested**
- Access to care
 - 2003 = **264 attended clinic**, 2015 = **1917 attended clinic**
- Treatment given in outreach clinics (including HMP)
 - 2003 = **100 treated**, 2015 = **1100 treated**
- SVRs
 - 2003 = **49**, 2015 = **702**



Status in 2014–2015

- Despite increase in needle exchange facilities and equipment new infections are still occurring
- Re-infection is occurring (PCR negative and SVRs)
- Significant number of PWIDs are still not been treated and cured
 - Not attended clinic
 - Attended but unable to complete assessment (ultrasounds, fibroscans, medical follow up)
 - Constant cycle in and out of care
 - Treatment side effects
 - No treatment for current injecting drug users

WE HAVE TREATED THE EASY ONES



Purpose of current treatment and care pathways

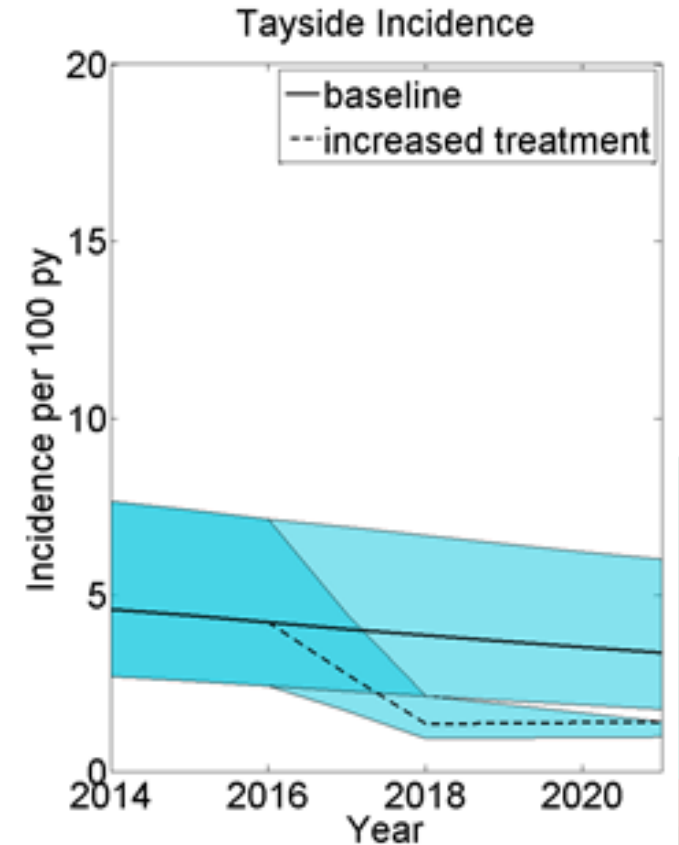
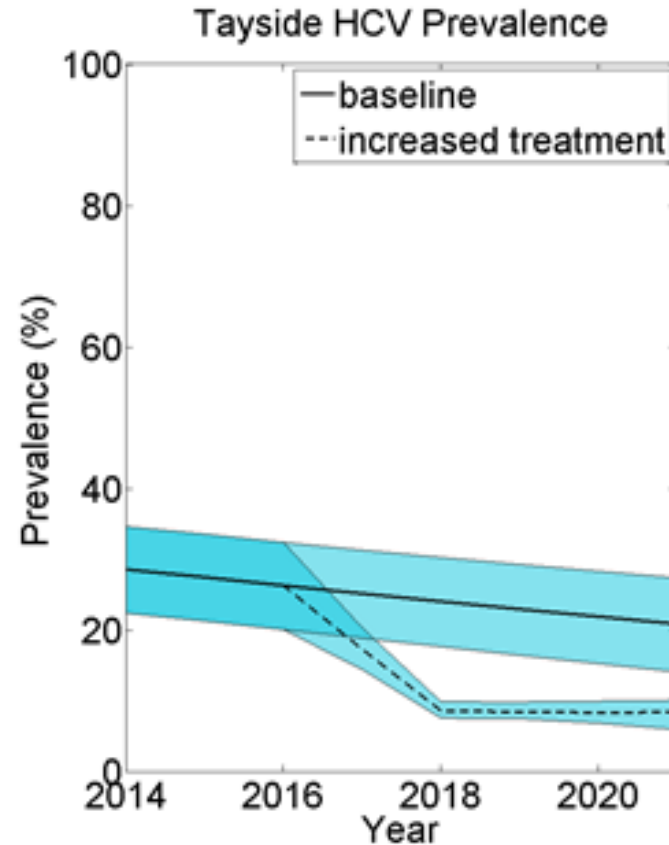
- Prevention of Liver failure and HCC
- Treatment of symptoms
- So a perpetual program of treatment

- *Unless...*
- Improved prevention
 - NSP & OST not enough
- Treatment as Prevention
- The Elimination agenda



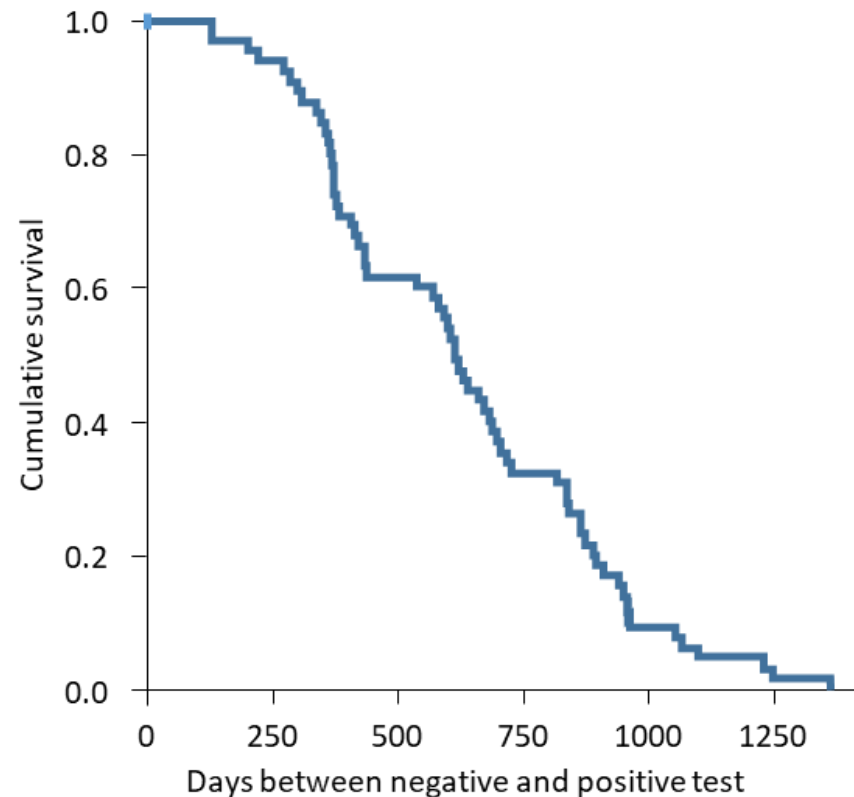
The road to elimination: Epitope and E-rapid

- We will treat 300 to 500 PWID in two years
- Which is projected to reduce chronic HCV prevalence from 29% to 10% (65% reduction)
- This should reduce HCV incidence from 5% to 1.6%



The first requirement of elimination

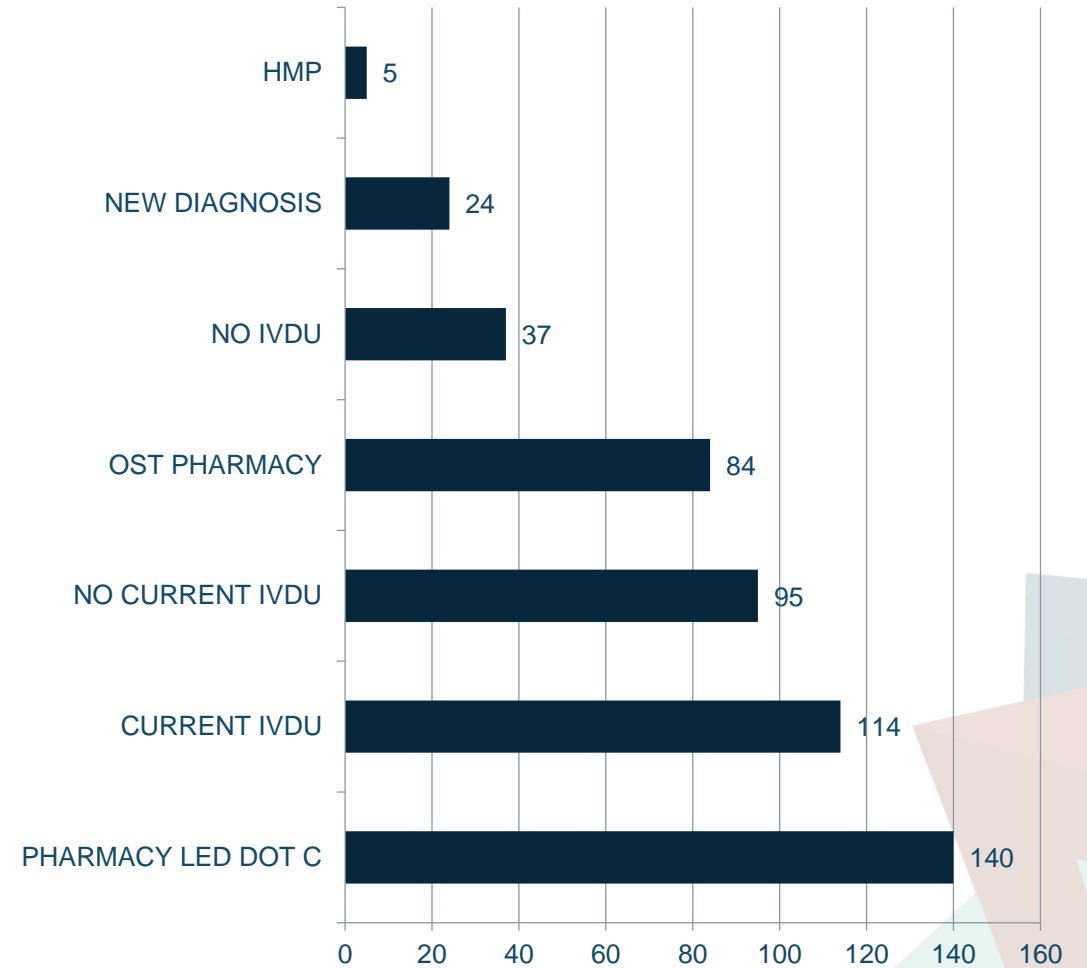
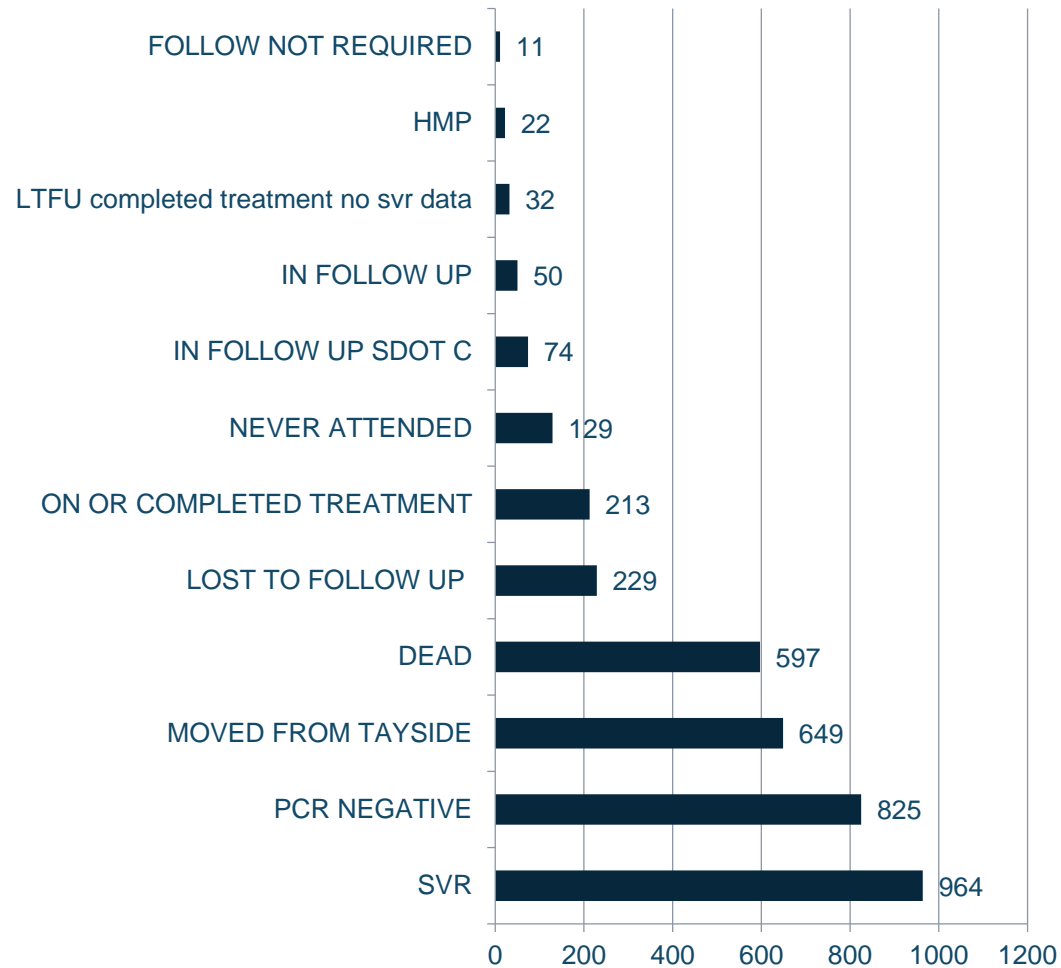
Survival HCV free in a needle exchange:
the unexpected benefits!



- Treat everyone
- Find the patients
- Have easy diagnostic tests
- Develop easy pathways of care
- Make treatment uncomplicated

NHS Tayside HCV database

All positive HCV antibody tests



Have easy diagnostic tests

- Conventional testing with elution step
- HCV ab, HIV ab
- HCV-PCR & HBsAg
- Works where venepuncture difficult
- Over 170 staff trained in Blood spot testing, mainly 3rd sector
- HCV testing embedded in
 - Drug problem centres

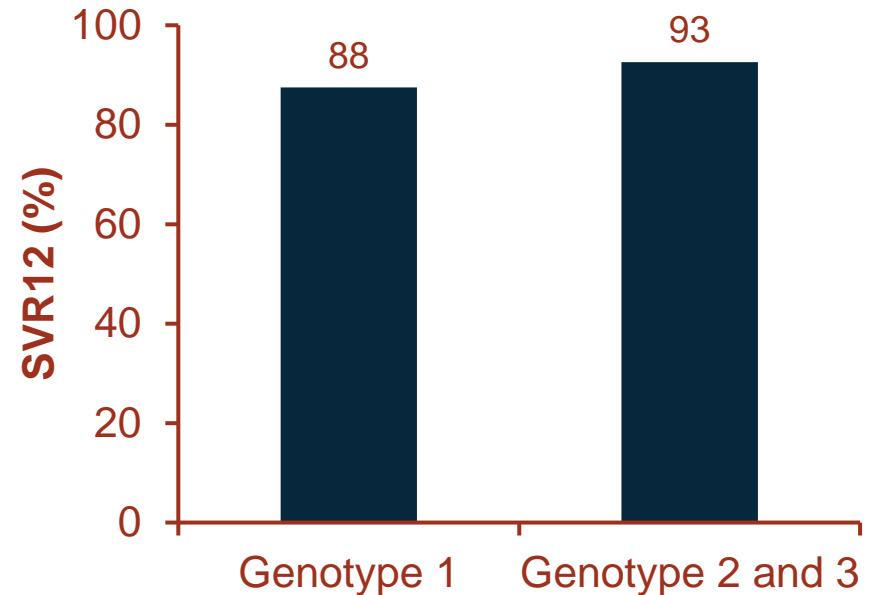
**If you can test or read a test result
you can refer**

- Criminal Justice, Prisons
- Minor injury units
- Needle exchanges
- 81% of tests are carried out by support workers, without clinical qualifications

Treat everyone

- Engage PWID at needle exchange centres in Tayside
- Incentivise suitable participants to comply with treatment
- 42 months project; 105/125 eligible patients agreed to participate
- All treated within first 24 months

Consented	105
Received treatment	94
Spontaneous resolver	3
Lost to follow-up	4
Stabilised drug use	2
Died prior to treatment	1
Prison prior to treatment	1



Make treatment easy

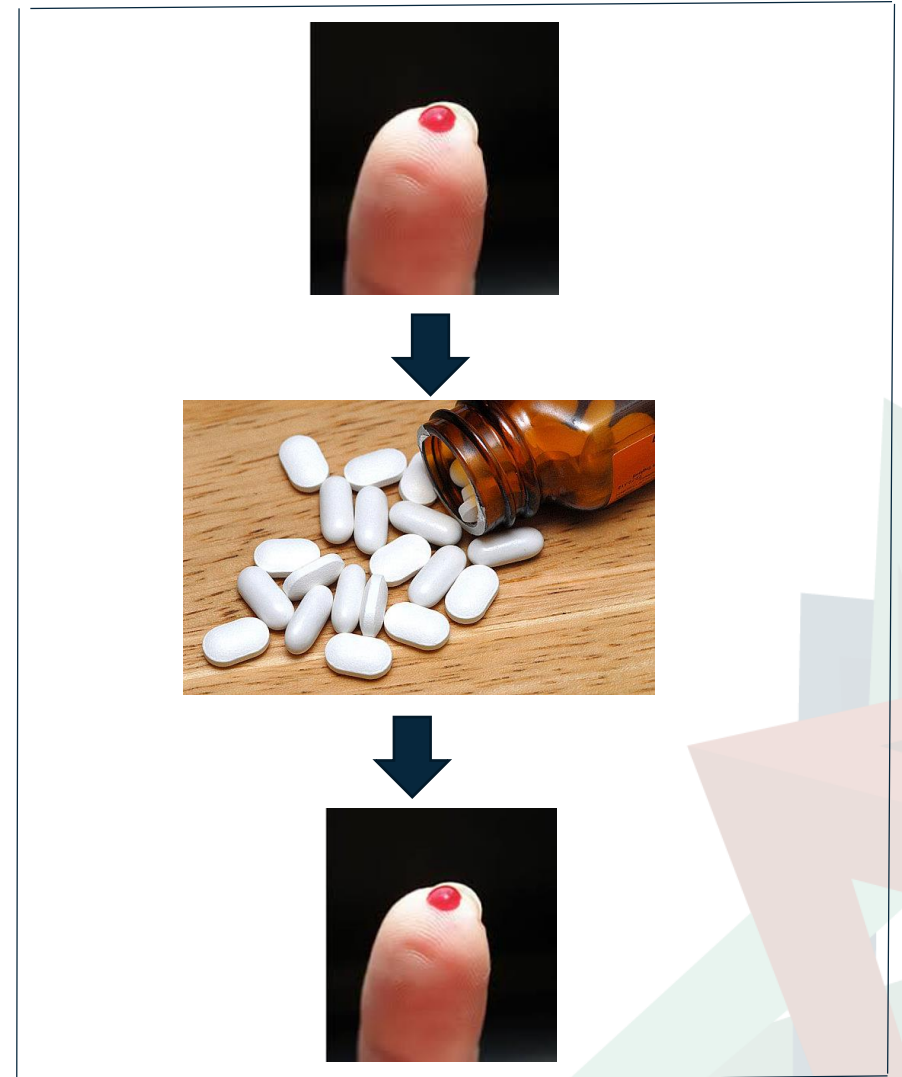
DOT-C: A pilot cluster randomised controlled trial
HCV testing and treatment in 8 community pharmacies

Pharmacist-led	Patient cohort 285 untested	Standard of care
89 DBST		63 DBST
29 reactive tests		11 reactive tests
3 treated		1 treated

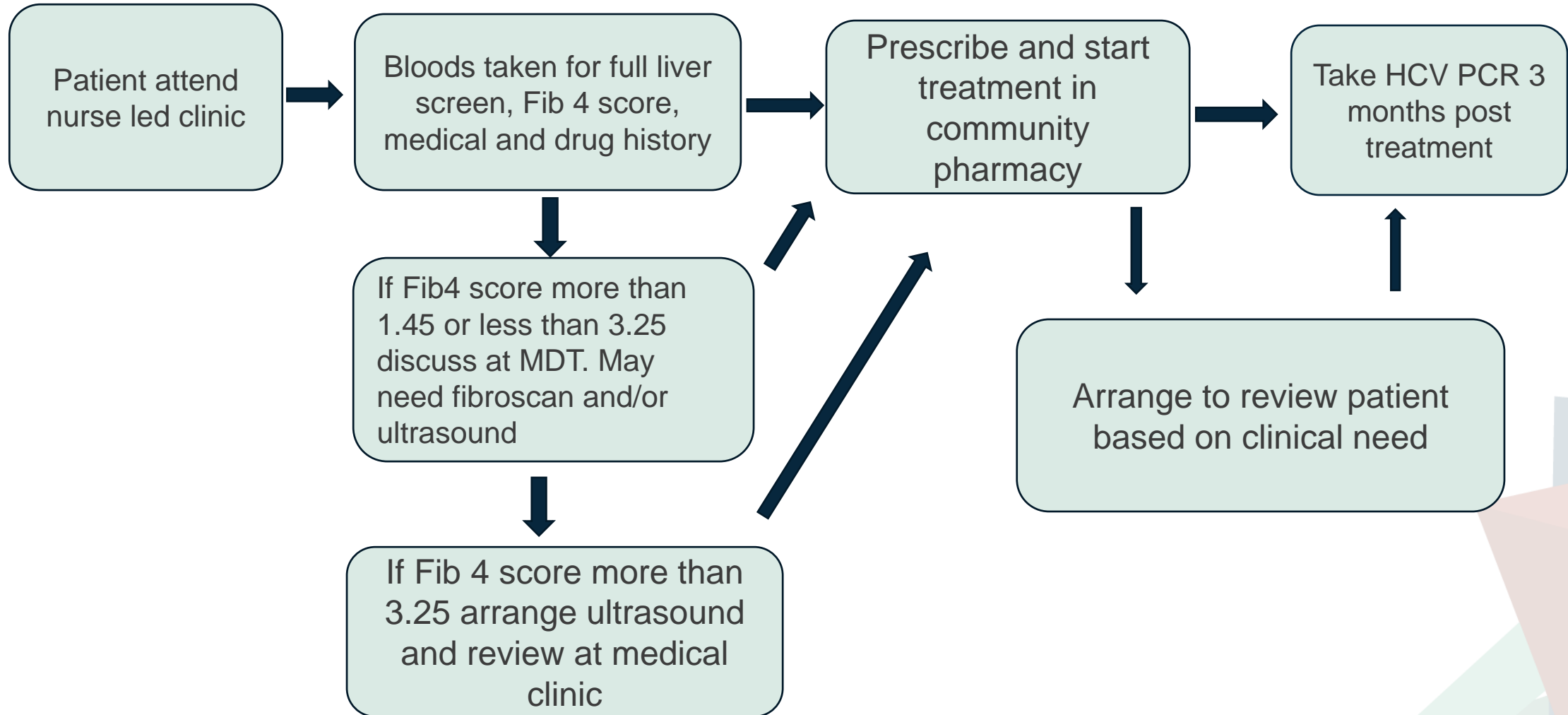
What do we need for treatment?



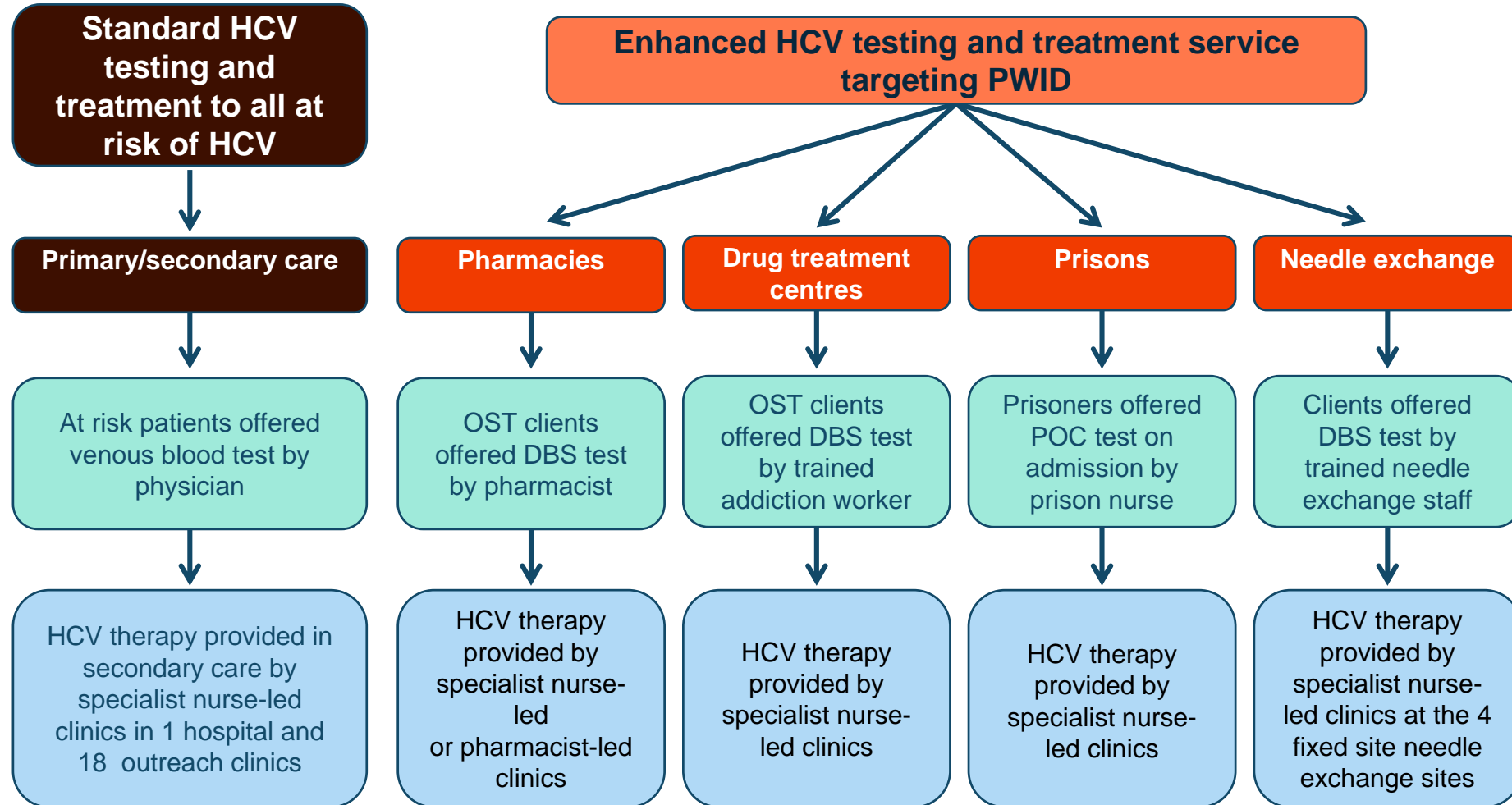
OR



New nurse led prescribing pathway



HCV testing and treatment pathways for the PWID and OST populations



PWID defined as those who either (a) are currently injecting drugs, (b) have ever injected drugs and are currently on opioid substitute therapy, or (c) have ever injected drugs and are currently in prison

DBS: dried blood spot; OST: opioid substitution therapies; POC: point of care; PWID: people who inject drugs

Summary and learning: Elimination of HCV

- Have the data or start collecting the data
- Treat everyone, including re-infections
- Have easy diagnostic tests
 - Dry blood spot tests kits, oral swabs, etc
- Find the patients
 - Embed routine HCV testing within all drug services (OST clinics and Needle exchange and community pharmacies)
 - Opt-out testing for prisoners
- Develop easy pathways of care
 - Stop doing unnecessary tests and investigations
- Make treatment uncomplicated
 - Provide treatment daily in pharmacies with OST
 - Provide treatment in needle exchange centres
 - Provide treatment in prisons



THANKS FOR YOUR ATTENTION

jantait@nhs.net
j.dillon@nhs.net



Engaging the “lost” hepatitis C positives in treatment?

Dr Stuart McPherson

Consultant Hepatologist

Liver Unit, Freeman Hospital, Newcastle

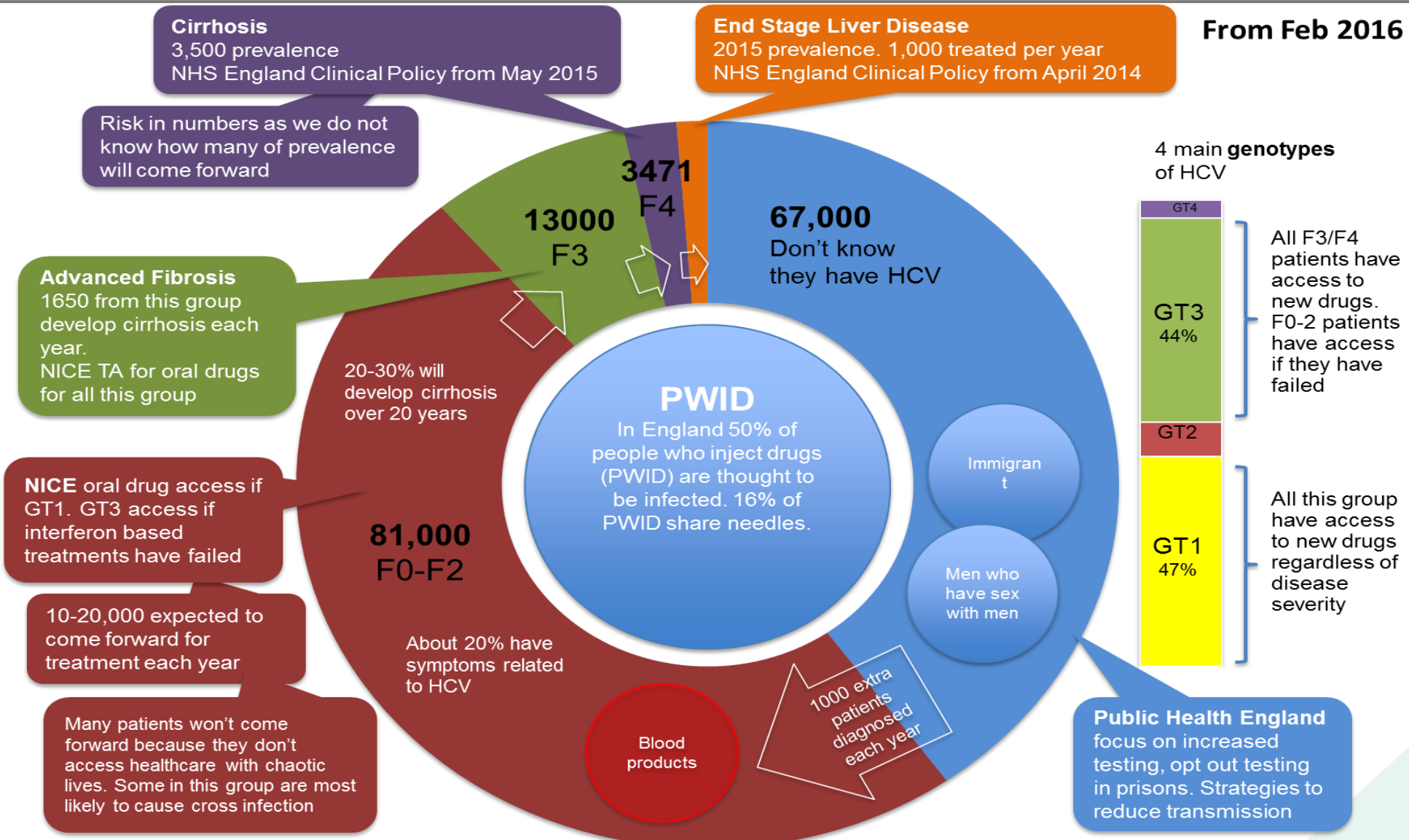
The Newcastle upon Tyne Hospitals



NHS Foundation Trust



Introduction



The North East and North Cumbria

Newcastle Upon Tyne Hospitals NHS Trust

Freeman

RVI

Outreach

Prison (Northumberland and Durham)

James Cook University Hospital

JCUH

Prison (Teesside)

Outreach

Sunderland Hospitals NHS trust

Queen Elizabeth Hospital, Gateshead

Outreach

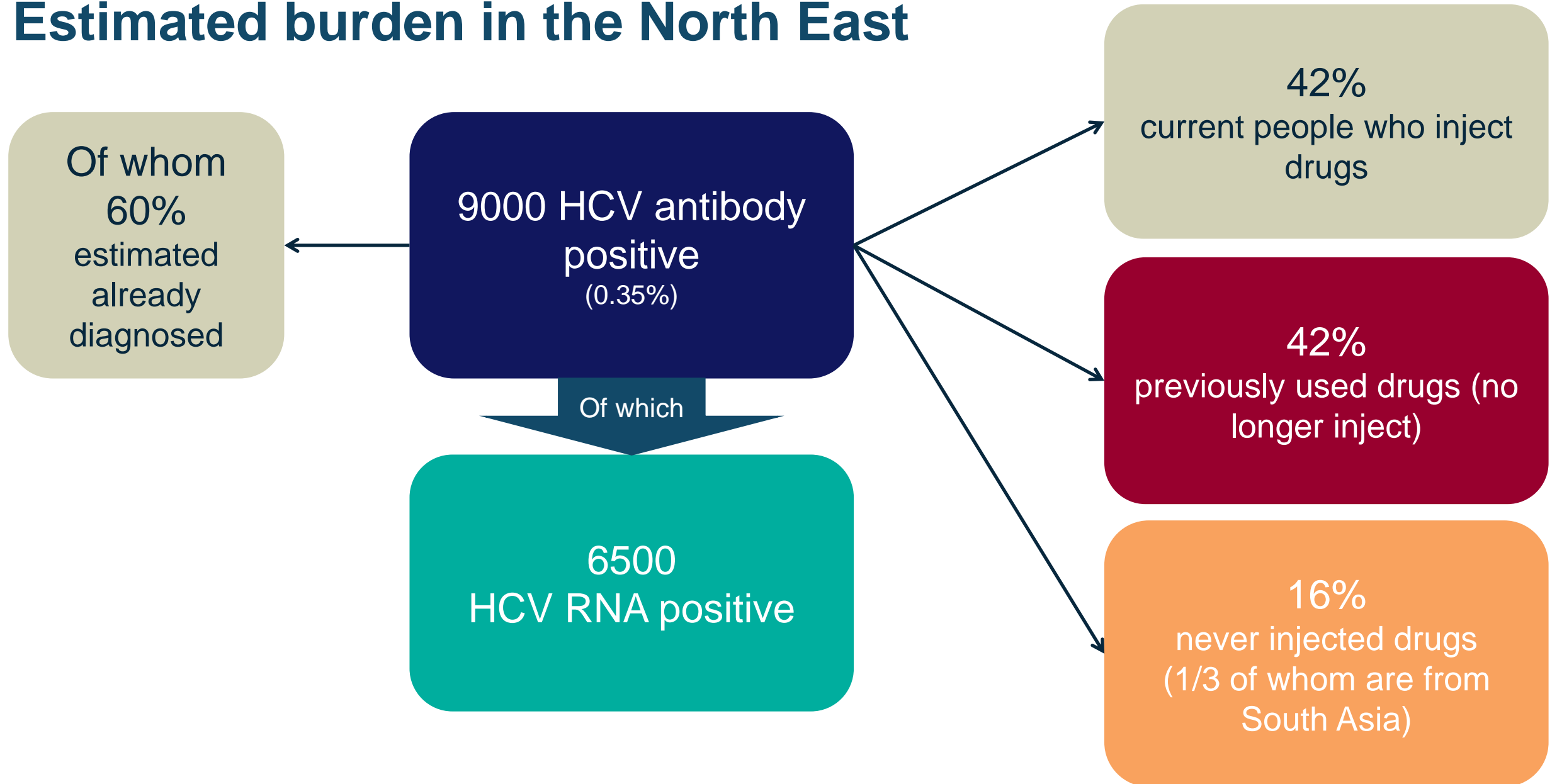
North Cumbria Hospitals

Carlisle

Whitehaven



Estimated burden in the North East



Newcastle and North of Tyne region

2011-2

HCV Ab +VE
n=286

HCV RNA -VE
n=71 (25%)

HCV RNA +VE
n=192 (67%)

HCV RNA Not Done
n=23 (8%)

HCV RNA +ve referred
n=169 (88%)

HCV RNA +ve NOT referred
n=23 (12%)

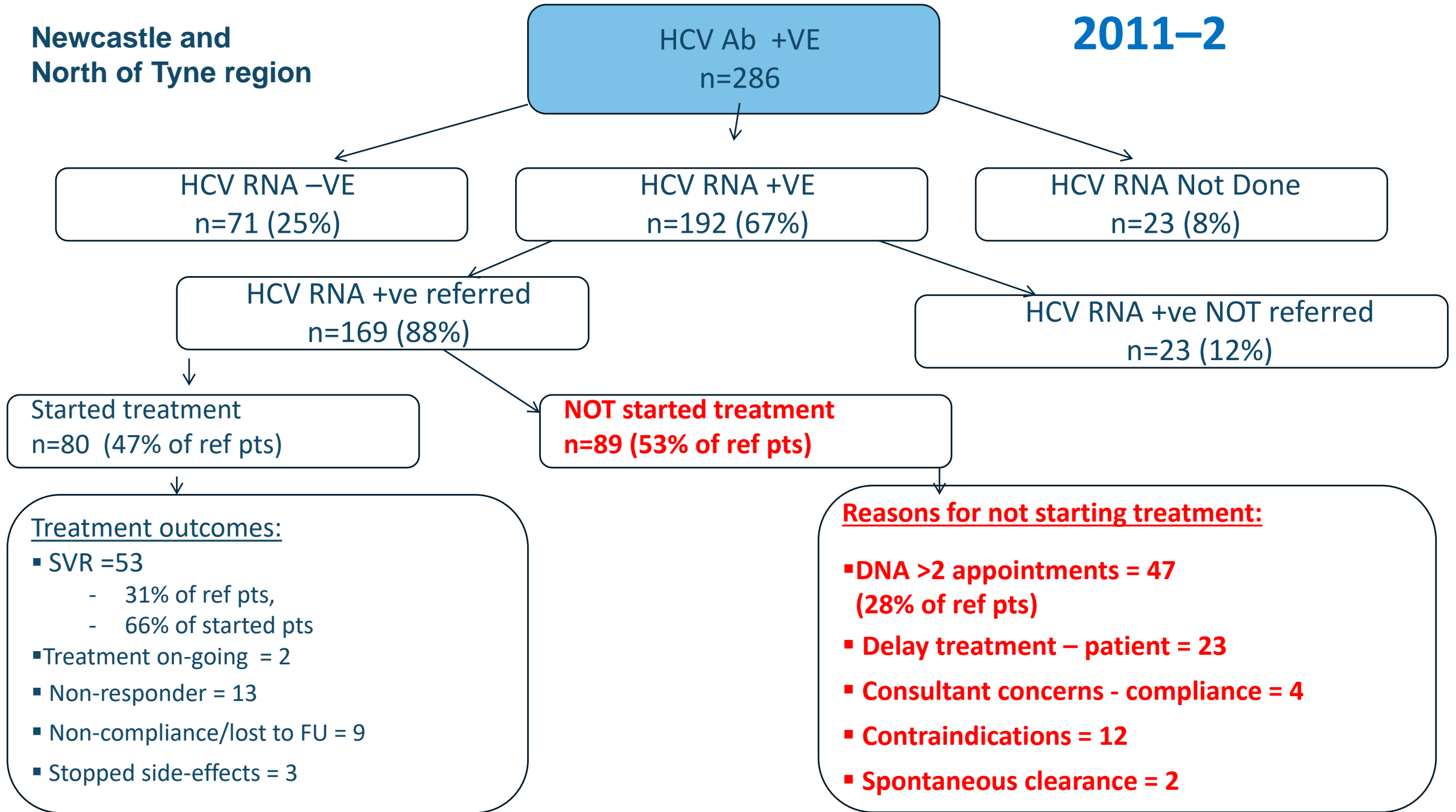
Started treatment
n=80 (47% of ref pts)

Treatment outcomes:

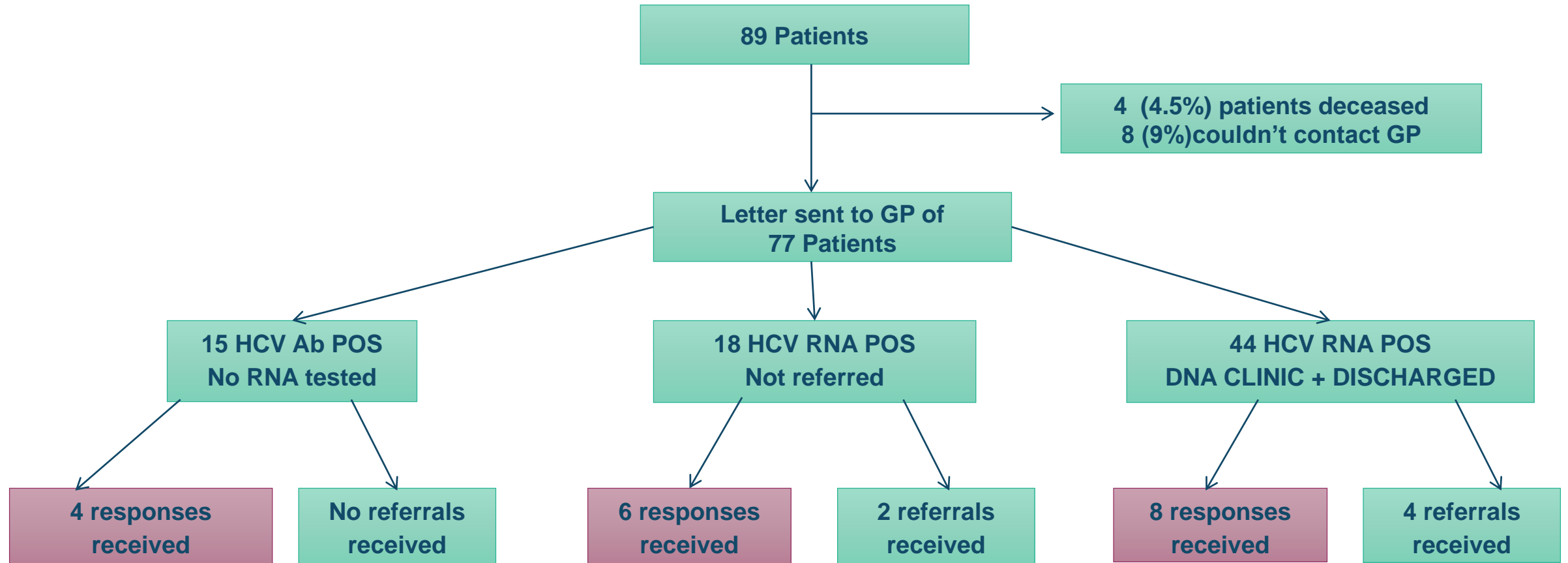
- **SVR =53**
 - 31% of ref pts,
 - 66% of started pts
- Treatment on-going = 2
- Non-responder = 13
- Non-compliance/lost to FU = 9
- Stopped side-effects = 3

Newcastle and North of Tyne region

2011-2



Could we find the patients not attending the clinic?



Overall 8% (6/77) of letters led to referral
Response from GP in 24 (31%) patients

Conclusions from this review

- Reasonable rate of referral in Newcastle
- Major reason for non-treatment was non-attendance (28%)
- Only 8% of the “lost” positives were brought back into the service with a letter to the GP
- Lots of problems with this approach
 - Single letter to GP inadequate
 - Trying to track patients down 3 years later
 - Only looking at a small part of our ODN – may not be representative of the whole network




Mapping of untreated HCV in the North East of England

- Overall aim was to find out where all known but untreated HCV was in the region to help strategically set up HCV treatment services
- To track down known cases of HCV to try and engage or re-engage them in treatment services

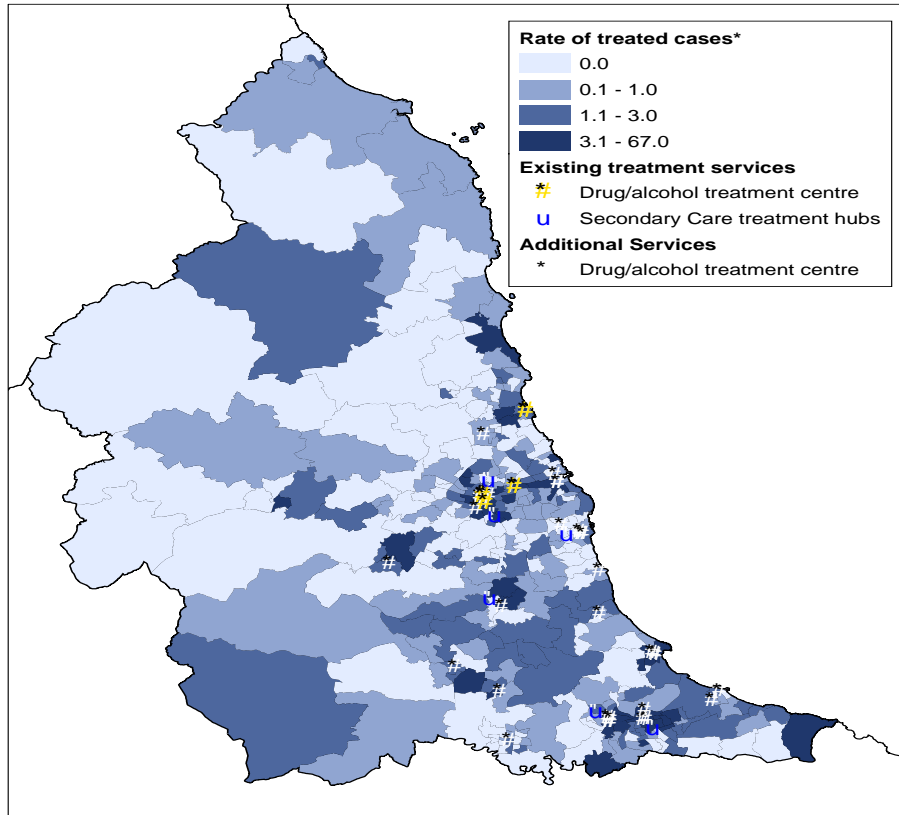


Methodology

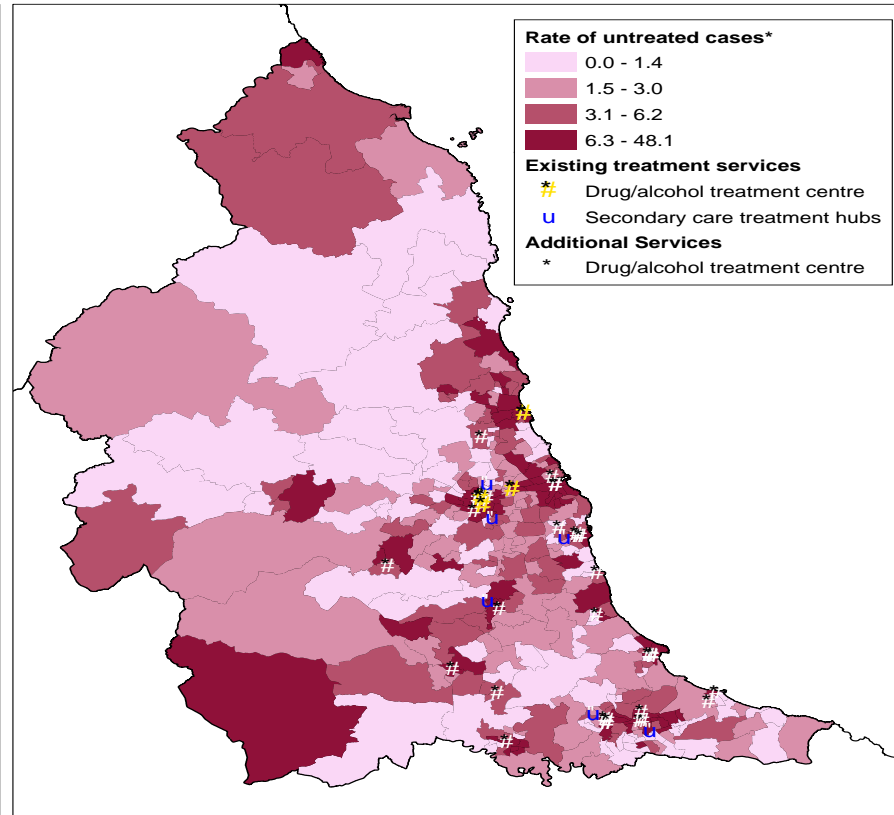
- All HCV infections reported from 1997-2016 in NEE were identified from PHE North East surveillance data (all reported HCV infections (Ab, Ag and PCR))
 - Treatment outcome data was provided for patients treated at hospitals in the North East and Cumbria ODN from 2007-2016
 - Epidemiologist “fuzzy matched” cases from surveillance and treatment outcome datasets using string distance algorithms
 - Individuals from the surveillance cohort who were not matched to treated cases were classified as “untreated”
 - Postcodes of residence for treated and untreated individuals were geocoded and integrated in a geographical information system with existing HCV treatment services and other drug and alcohol services (considered alternative treatment locations)
- 

Mapping treated and untreated HCV cases

Rates of treated cases



Rates of untreated cases

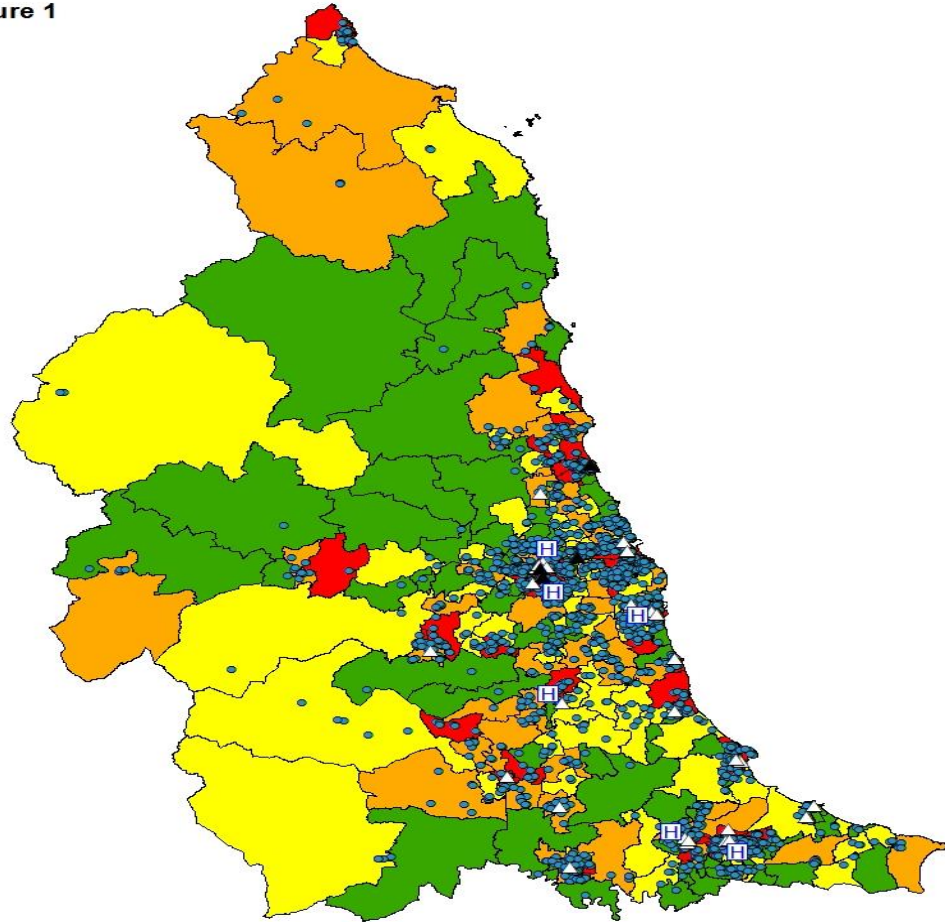


Contains Ordnance Survey data © Crown copyright and database right 2017. Contains National Statistics data © Crown copyright and database right 2017.

- 4243 reported HCV cases were identified.
- 858 (20%) were matched and had been treated,
- 3385 (80%) cases were untreated.

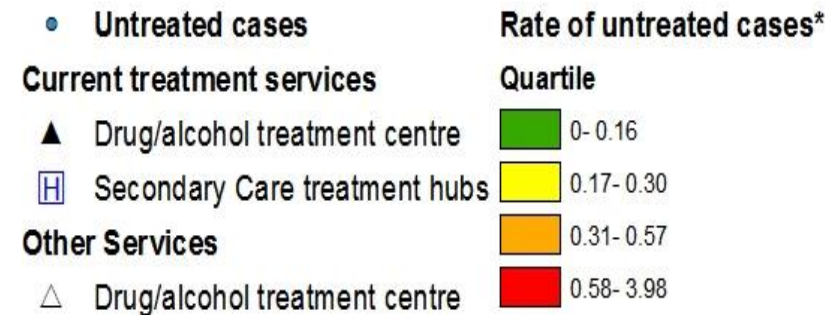
Map of untreated cases

Figure 1



Currently 45% of untreated cases are 5km from a treatment service

If all drug services used this can increase to 70%



*Number of cases reported to PHE North East per year from 1997- 2016, per 10,000 population

Problems with this approach

- Only 27% of individuals on the surveillance database were known HCV Ag or PCR pos so some spontaneous clearers are called “untreated”
- Unknown outcome from treatment patients were considered as “untreated”
- Individuals move in and out of the region
- Five prisons on our patch can complicate mapping
- Undiagnosed cases can't be mapped



How are we using this data?

- Expanded outreach approx. 15 locations in region
- PHE supplied details of all “untreated” individuals to our ODN
- Employed two hepatology assistants who are trying to engage these patients and get them back into care
 - 3800 to try and track!
 - Now established monthly reporting from Trust/PHE lab of all new cases to the hepatology assistants to track cases



Information received from Virology Labs

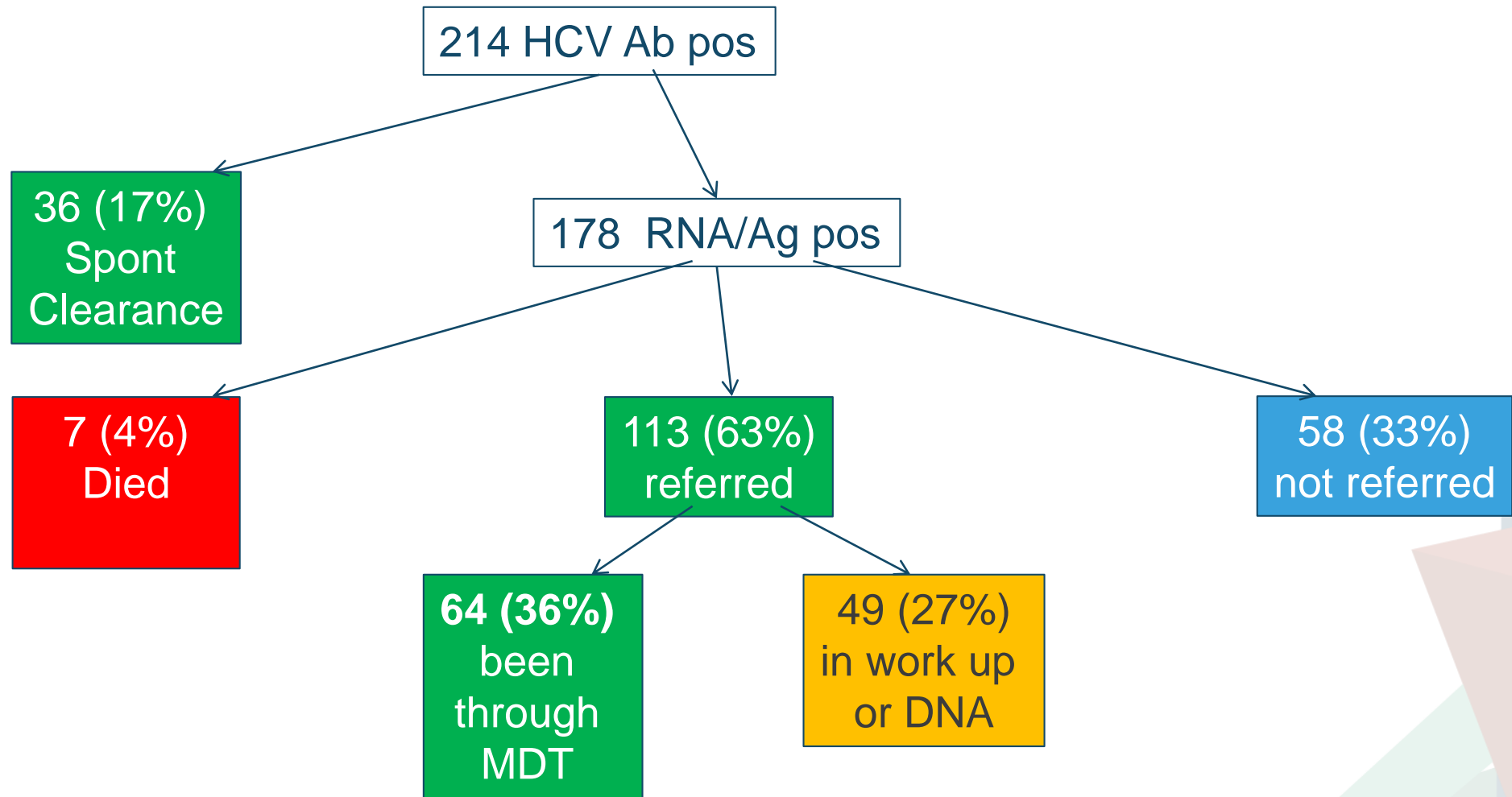
Use Summary care/Mermaid, E-record to filter out the deceased patients, treatment responders and those on treatment

Use Summary Care to access up to date contact patient information. Patients remaining should be cross referenced against E-record and referral databases to establish if they are aware of their diagnosis

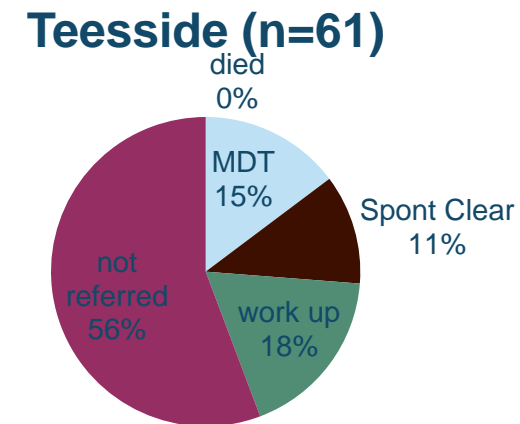
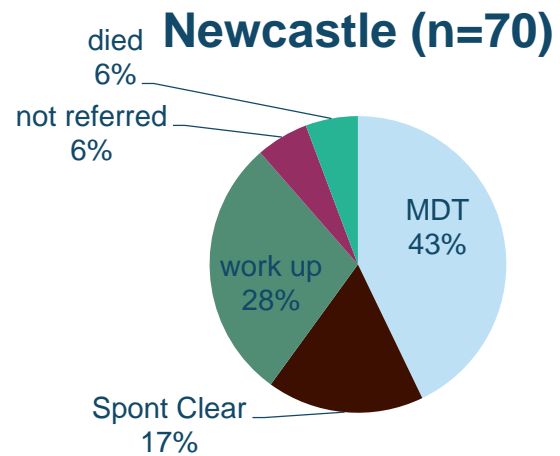
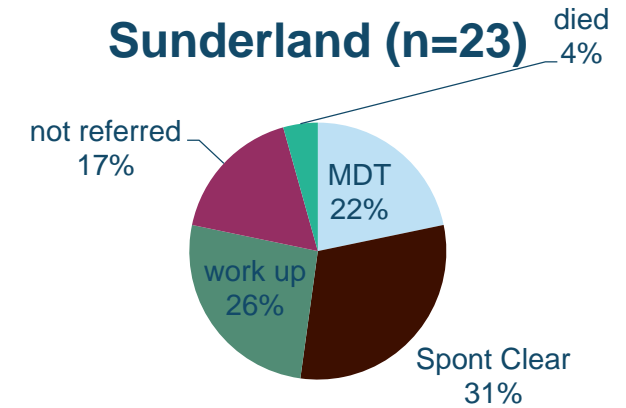
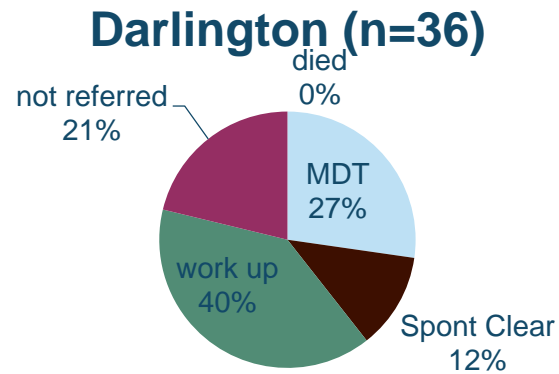
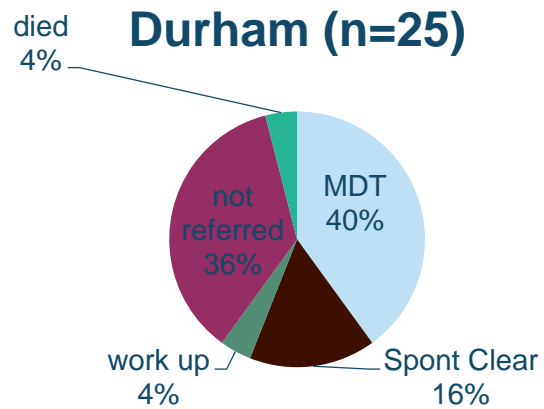
Patient aware of their diagnosis who have previously DNA'd/lost to follow up and have a pathway can be contacted and re-appointed once contact details have been confirmed.
Appt. slots can be reserved.

Patients who are unaware of their diagnosis should NOT be contacted directly.
Contact should be made with their GP/DTC for discussion with the patient – follow up after duration of time and then if diagnosis awareness is confirmed the patient can be contacted and appt slot reserved and confirmed when referral received

What happened to the 2016 new HCV diagnoses in NE England?



Treatment rates by postcode



Conclusions

- Approx. 100,000 individuals have been diagnosed with HCV in England
- The majority have not been treated and a large proportion have been lost to follow up
- Mapping untreated HCV can help strategically design treatment services
- Tracking known HCV positive individuals to engage them in treatment using PHE records is likely to be a cost-effective method of increasing treatment rates



Acknowledgments

Hope Simpson

Sarah Welsh

Ashley Young

Trevor Croft

Dr Manoj Valappil

Dr Ashley Price

Dr Mathias Schmid

Dr Steve Masson

Carolyn Miller

Emma Robinson

Tina Young

Brendan McCarron

Jane Knowles

Margaret Hewett

Harriet Mitchison

Julie Walker



Community HCV models: Engaging the Disengaged

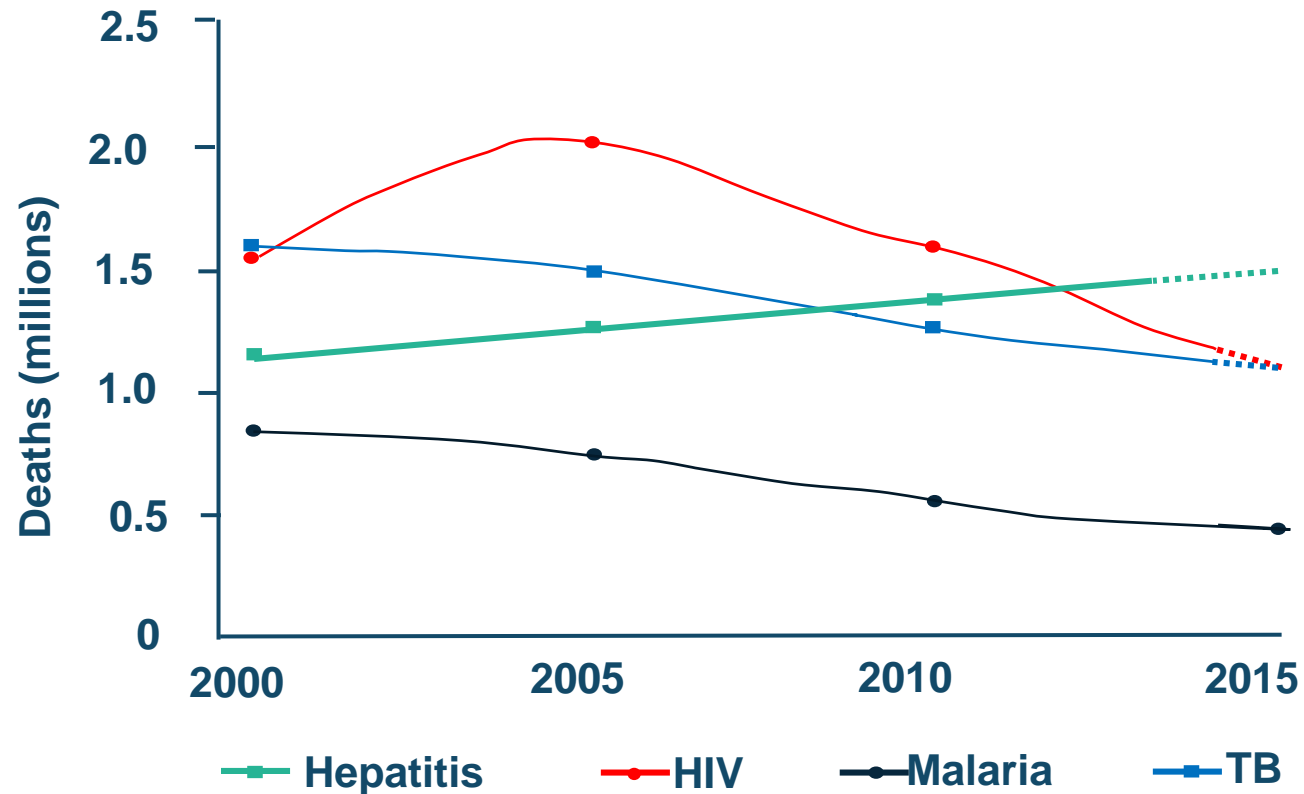
Sumita Verma

Reader in Medicine, BSMS

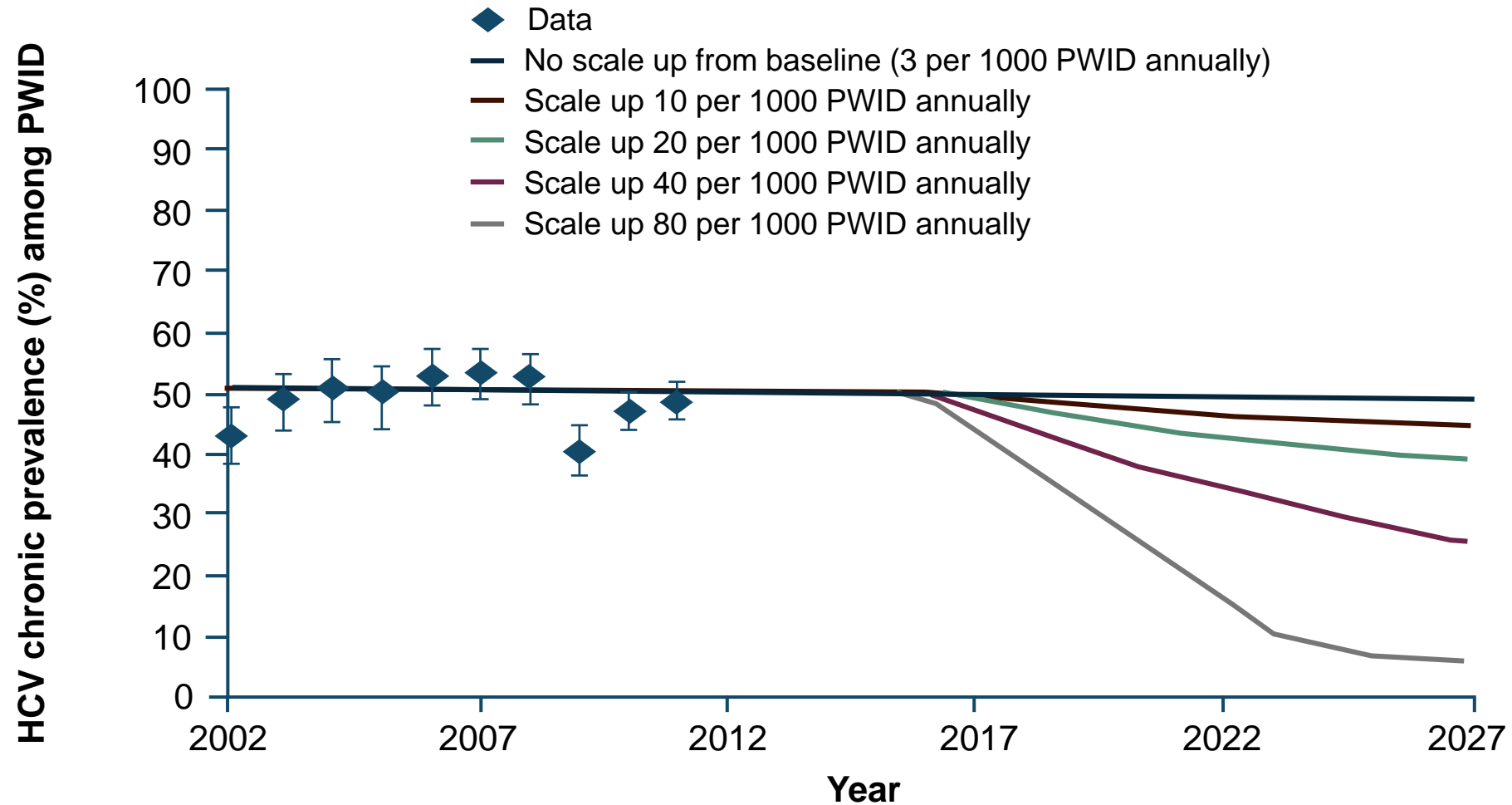
Hon Consultant Hepatology, BSUH



Estimated Global Number of Deaths Due to Viral Hepatitis, HIV, Malaria and TB (2000–2015)



HCV Treatment in People who Inject Drugs (PWID)



Prioritisation of HCV Treatment Amongst PWID

PS-129

Treatment as prevention for hepatitis C in Iceland (TRAP HEP C). A real-world experience from a nationwide elimination program using direct acting antiviral agents

S. Olafsson^{1,2}, T. Tyrfingsson³, V. Runarsdottir³, O.M. Bergmann¹, E.S. Björnsson^{1,2}, B. Johannsson⁴, B. Sigurdardottir⁴, R.H. Fridriksdottir¹, A. Löve^{2,5}, T.J. Löve^{2,6}, G. Sigmundsdottir⁷, M. Heimisdottir^{2,8}, M. Gottfredsson^{2,4,6} and the TRAP HEP C Working Group. ¹Gastroenterology and Hepatology, Landspítali University Hospital; ²Faculty of Medicine, School of Health Sciences, University of Iceland; ³Vogur Addiction Treatment Center; ⁴Infectious Diseases; ⁵Virology; ⁶Department of Science, Landspítali University Hospital; ⁷State Epidemiologist, Directorate of Health; ⁸Department of Finance, Landspítali University Hospital, Reykavik, Iceland
E-mail: sigurdol@landspitali.is

NAL OF
OLOGY

era:

s⁴,
Martin⁸,

Viral Hepatitis

HCV prevalence

R

Jc

- More cost
- Moderate
- Mild fibros

Trying to Engage PWID

Gender Differences in Hepatitis C Seroprevalence and Suboptimal Vaccination and Hepatology Services Uptake Amongst Substance Misusers

Muchandidemba Marufu,¹ Hugh Williams,² Samuel L Hill,³ Jeremy Tibble,¹ and Sumita Verma^{1,3*}

¹Department of Gastroenterology and Hepatology, Brighton and Sussex University Hospital, Brighton, UK

²Substance Misuse Service, Sussex Partnership NHS Foundation Trust, Brighton, UK

³Department of Medicine, Brighton and Sussex Medical School, Brighton, UK

- Mar–Sept 2011
- 73 with positive BBV screen
 - 14 (19%) known to Hepatology services – 2 (3%) treated
- 40 eligible for HCV treatment
 - 8 (20%) accepted referral
 - **2 (5%) attended, none treated !!**

Stages in Developing a Community HCV Service

Establish unmet need for Community HCV service (2011)

Engage with stakeholders: Commissioners, Hepatitis C Trust, British Liver Trust, Substance Misuse Service (SMS), Pharma (2011–2013)

Develop team: Hepatologist, Hepatitis nurse, Psychiatrist, Qualitative researcher, Health economist, Statistician (2011–2013)

Successful 2-yr funding BH Commissioners and National Gilead Fellowship (2013)
Two years additional funding Gilead ISR and BH Commissioners (2015)

Service set up 2013

Project ITTREAT (Integrated Community-Based Test-stage-TREAT) HCV service for PWID

- Set up a 'one-stop' community HCV service at SMS in Brighton, UK
 - Community hepatitis nurse, onsite FibroScan®
 - 2013–2017
 - **Successful business case (Nov 2017) thereby ensuring permanency of service**
- Evaluate service by data collection
 - Clinical
 - PRO (SF12, SFLDQOL)
 - Health Economics (QALY) 'cost per cure'
 - Concurrent embedded qualitative study
- Ethical approval (REC ref 13/EM/0275)

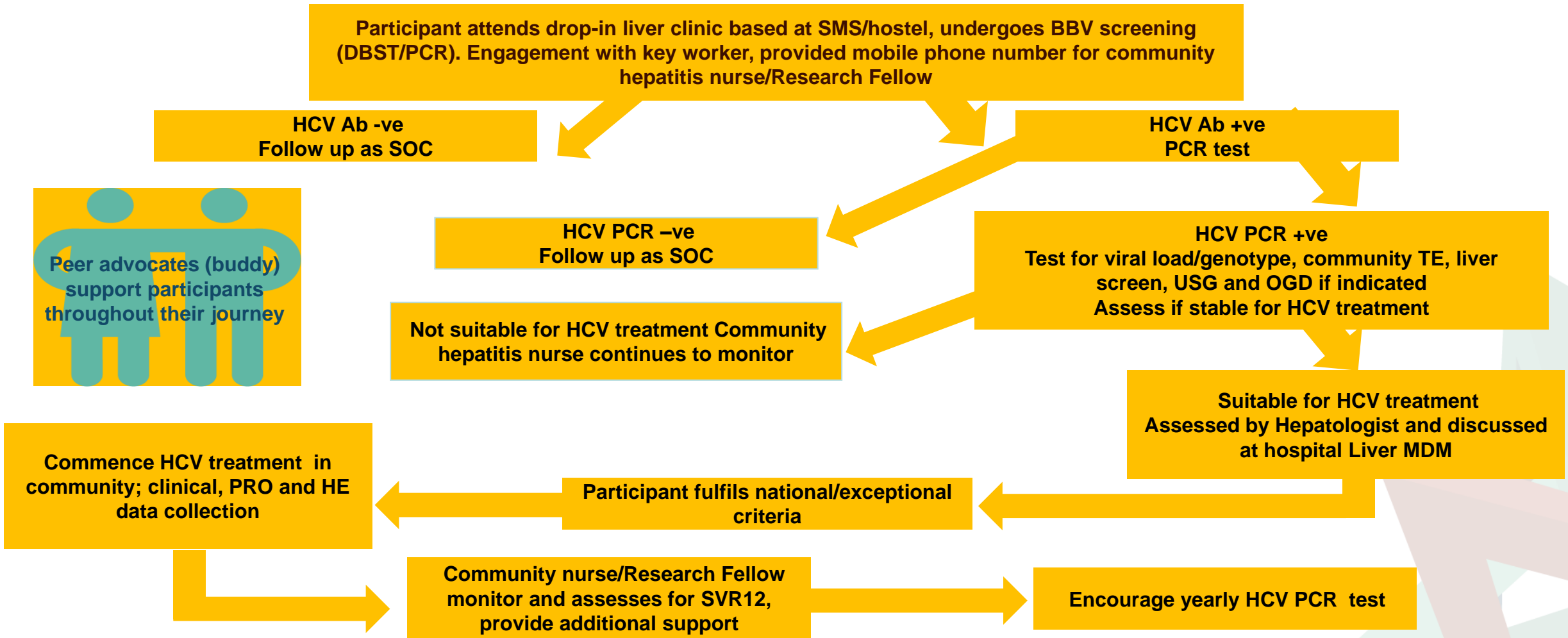


VALID (Vulnerable Addults Liver Disease) Study 2015–2018

- Primary Objective
 - Prevalence of clinically significant chronic liver disease (LSM > 8kPa) in vulnerable elderly vs. non-elderly
- Secondary Objectives
 - Service uptake including HCV treatment outcomes
 - Mechanisms for more aggressive liver disease in the elderly (Th17, mRNA122, senescence biomarkers)
- Funding from Dunhill Medical Trust, KSS Deanery, National Gilead Fellowship
- Ethical approval (REC ref 15/SC/0112)



Care Pathway



ITTREAT and VALID: Interim Clinical Outcomes

No recruited	659 (80% men)
Age (yrs)	
ITTREAT	41 ± 9.9
VALID	49 ± 8.5

ITTREAT and VALID: Interim Clinical Outcomes

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Age (yrs)	
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IDU	475 (72%)
Alcohol	552 (84%)
Psychiatric illness	332 (50%)
Unstable housing	345 (52%)

ITTREAT and VALID: Interim Clinical Outcomes

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IDU	475 (72%)
Alcohol	552 (84%)
Psychiatric illness	332 (50%)
Unstable housing	345 (52%)
BBV uptake	647/661 (98%)
Positive HCV Ab	354/659 (54%)
Positive PCR	287/353 (81%)
GT 1/3	51%/42%
Prior HCV treatment	14

ITTREAT and VALID: Interim Clinical Outcomes

No recruited Age (yrs) ITTREAT VALID	659 (80% men) 41 ± 9.9 49 ± 8.5
IDU Alcohol Psychiatric illness	475 (72%) 552 (84%) 332 (50%)
Unstable housing	345 (52%)
BBV uptake Positive HCV Ab Positive PCR GT 1/3 Prior HCV treatment	647/661 (98%) 354/659 (54%) 287/353 (81%) 51%/42% 14
Underwent fibroscan LSM > 7.5 kPa LSM > 12 kPa	312 115 (37%) 67 (21%)

ITTREAT and VALID: Interim Clinical Outcomes

Suitable for HCV treatment	216/287 (75%)
Commenced treatment	130/216 (60%)

ITTREAT and VALID: Interim Clinical Outcomes

Suitable for HCV treatment	216/287 (75%)
Commenced treatment	130/216 (60%)
Ongoing IDU	18 (12%)
Ongoing non injecting drug use	37 (28%)
On going alcohol	40 (31%)
Unstable housing	55 (42%)
Cirrhosis	42 (32%) 5 decompensated
GT 1/3	62/60

ITTREAT and VALID: Interim Clinical Outcomes

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GT 1/3	62/60
P/R	16 (12%)
P/R/DAA	18 (14%)
DAA	96 (74%)

ITTREAT and VALID: Interim Clinical Outcomes

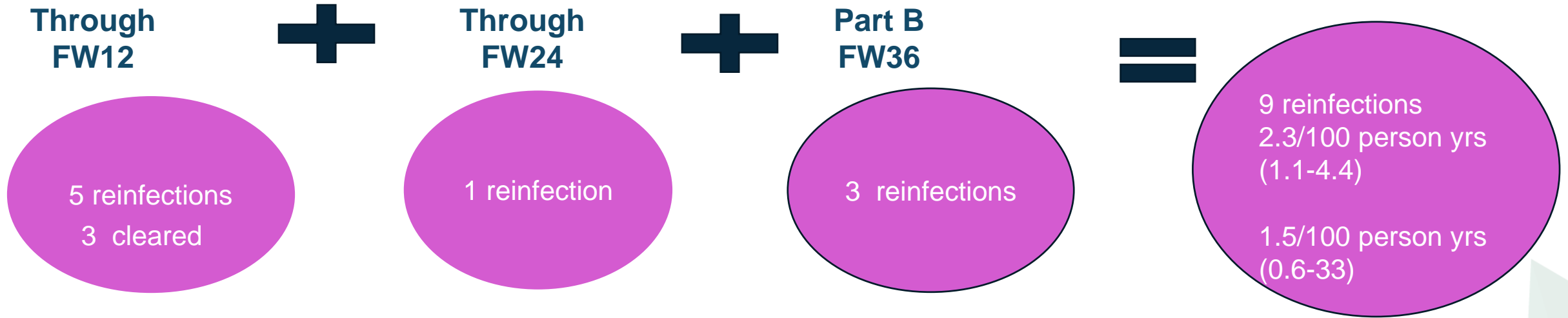
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DAA	96 (74%)
SVR	<u>85/96 (88%)</u>
EOTR	18 (14%)
On going	16 (12%)
Other outcomes	11 (8%): 5RR, 1PR, 3D/C, 2 RIP, 1 lost FU

ITTREAT and VALID: Interim Clinical Outcomes

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EOTR	18 (14%)
On going	16 (12%)
Other outcomes	11 (8%): 5RR, 1PR, 3D/C, 2 RIP, 1 lost FU
Compliance with clinic visit	97%
Reinfection till date	1/41

C-EDGE CO-STAR: Elbasvir + Grazoprevir in PWID

N=199 followed up for 3 years



ERADICATE STUDY

- 94 actively injecting PWID
- Needle exchange Tayside Scotland
- Contingency management
- PI + Peg INF + RBV
- SVR 83%
- Reinfection 18/100 person years (John Dillon personal communication)

Lessons learnt!!

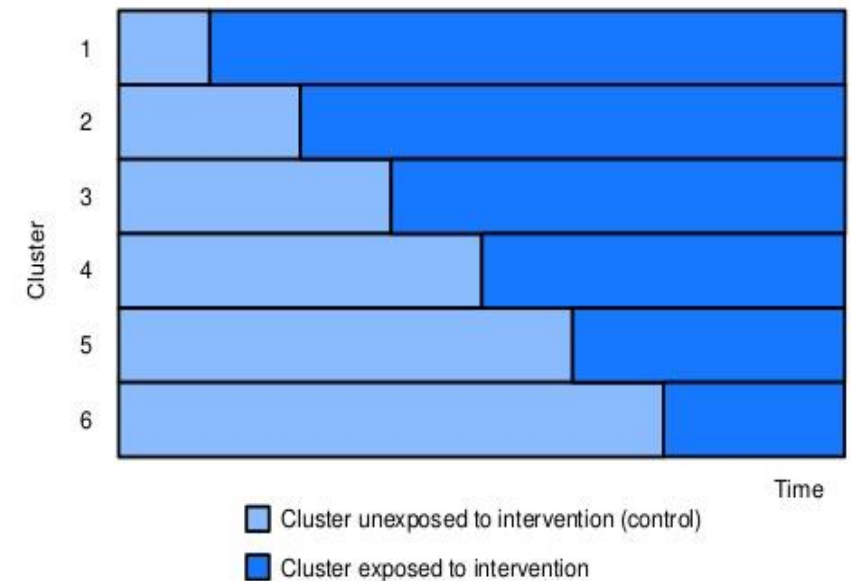
- “People who inject drugs represent a hard to reach population who find it difficult to access traditional models of care. A service that relies on a traditional secondary care model of care for these groups will fail, with high levels of “did not attends”
- Not “one size fits all” but **ALL** aspects of care provided at **ONE** site
- Cares about vulnerable adults, works collaboratively to provide holistic/personalised service
- Easy access: mobile phone, flexible drop in clinics
- Non-judgemental service: stigma and shame a huge barrier - on going IDU and alcohol not a bar to HCV treatment
- Unrestricted access to pangenotypic 8 weeks non-ribavirin DAA regimens



What Next -----

- Can such models of care work nationally ? - need to generate evidence on a larger scale
- Conduct a national study
 - nurse led complex intervention in GP practices that cater to homeless: BBV testing, non-invasive assessment of hepatic fibrosis and HCV treatment
 - Evaluate the complex intervention by a step wedge cluster RCT collecting clinical, qualitative, patient reported and health economic outcomes

What is a Step Wedge Design?



Many variations on a theme

Click here to visit the website:

Gilead UK and Ireland Fellowship Programme

www.ukifellowshipprogramme.com



NHS

Brighton and Hove
Clinical Commissioning Group

Brighton and Sussex
University Hospitals
NHS Trust



brighton and sussex
medical school

Sussex Partnership
NHS Foundation Trust

Anna-Marie Jones



Chrissie Jones



Margaret O'Sullivan



Hugh Williams



Heather Gage



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Fellowship Programme

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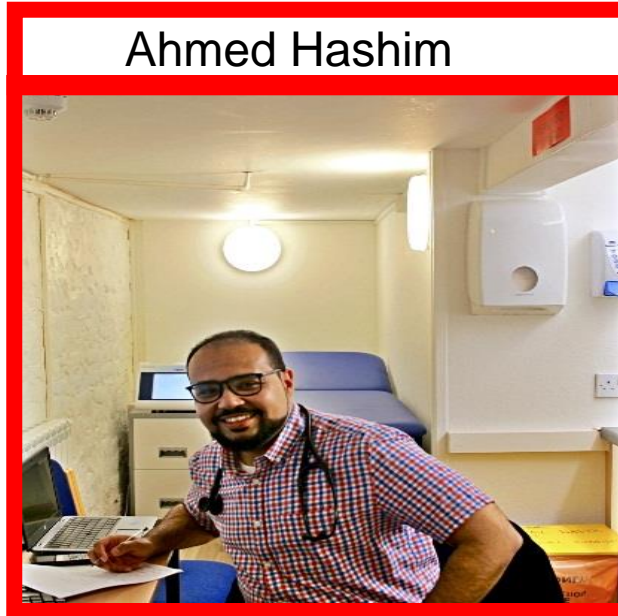
Tim Worthley



Stephen Bremner



Ahmed Hashim



Guru Aithal



BHWC community
Sharing knowledge, to help each other
achieve a healthy lifestyle & overall wellbeing.
Brighton Health & Wellbeing Centre UK (wellbeing-centre.org)



Towards the elimination of Hepatitis C on the Isle of Wight

Ryan Buchanan







ISLE OF WIGHT
HEPATITIS C
PATHWAY

TEST TREAT
CURE CARE
RESEARCH



ARE YOU 1 OF THE MISSING 200?

50% OF HEPATITIS C IS UNDIAGNOSED ON THE ISLAND

IF YOU FEEL YOU HAVE BEEN EXPOSED TO RISK

GET TESTED AT YOUR LOCAL PHARMACY FOR FREE

YOU MAY NOT KNOW YOU ARE INFECTED

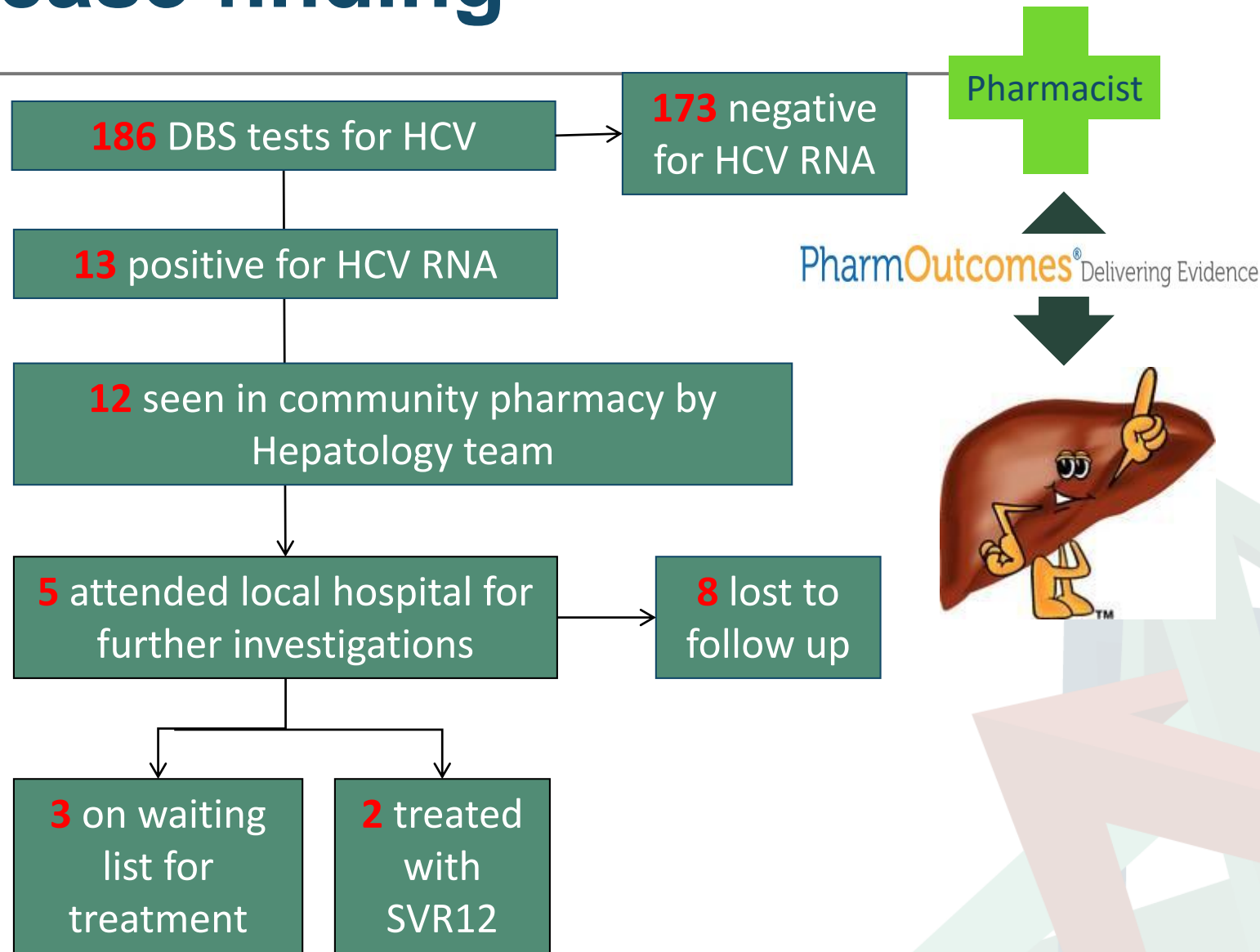
... NONE

KATIE SHOWS ALL THE
SIGNS THAT SHE HAS
HEPATITIS C...

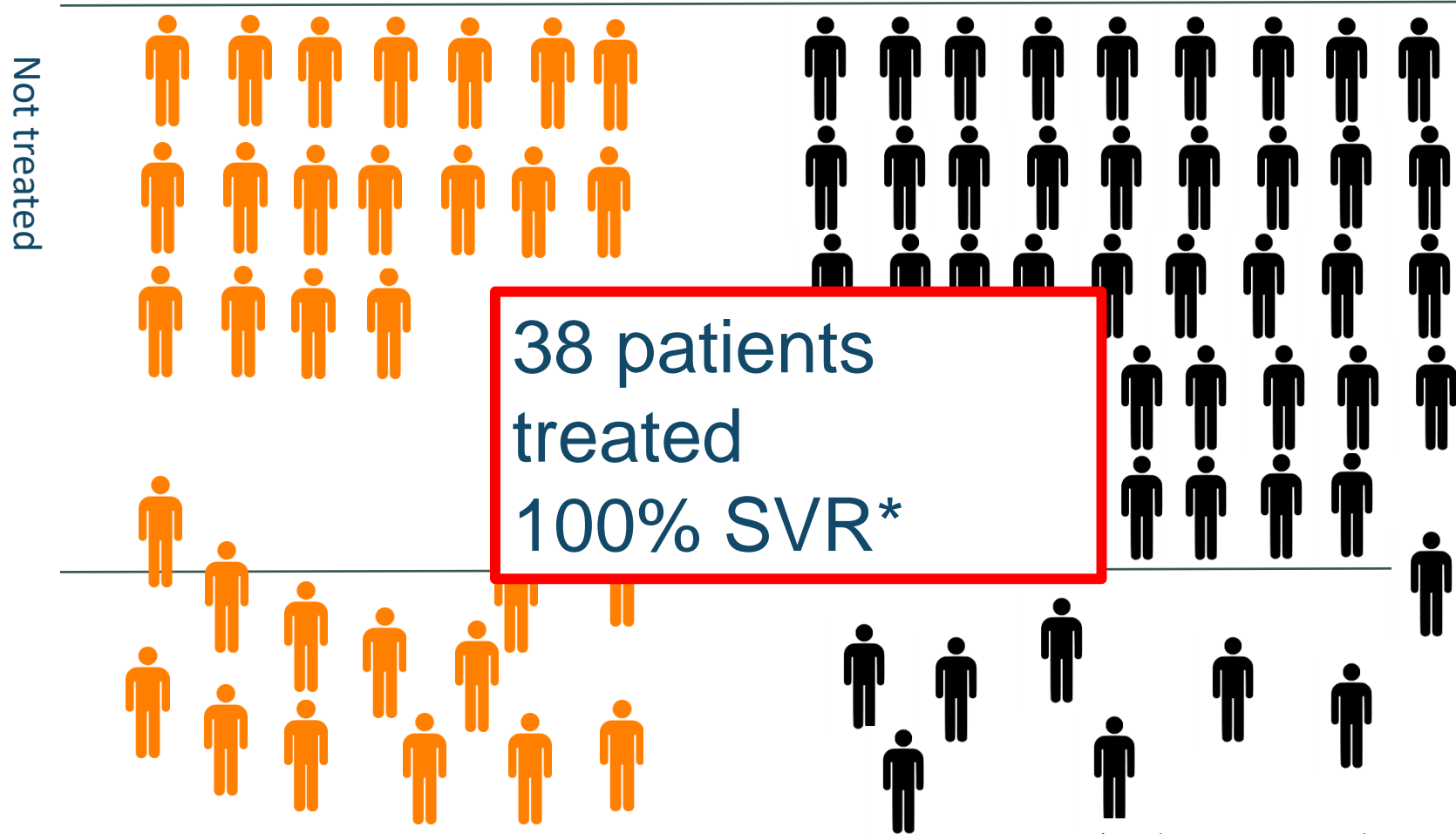
For more information on risks visit www.hepctrust.org.uk



Pharmacy-based case finding

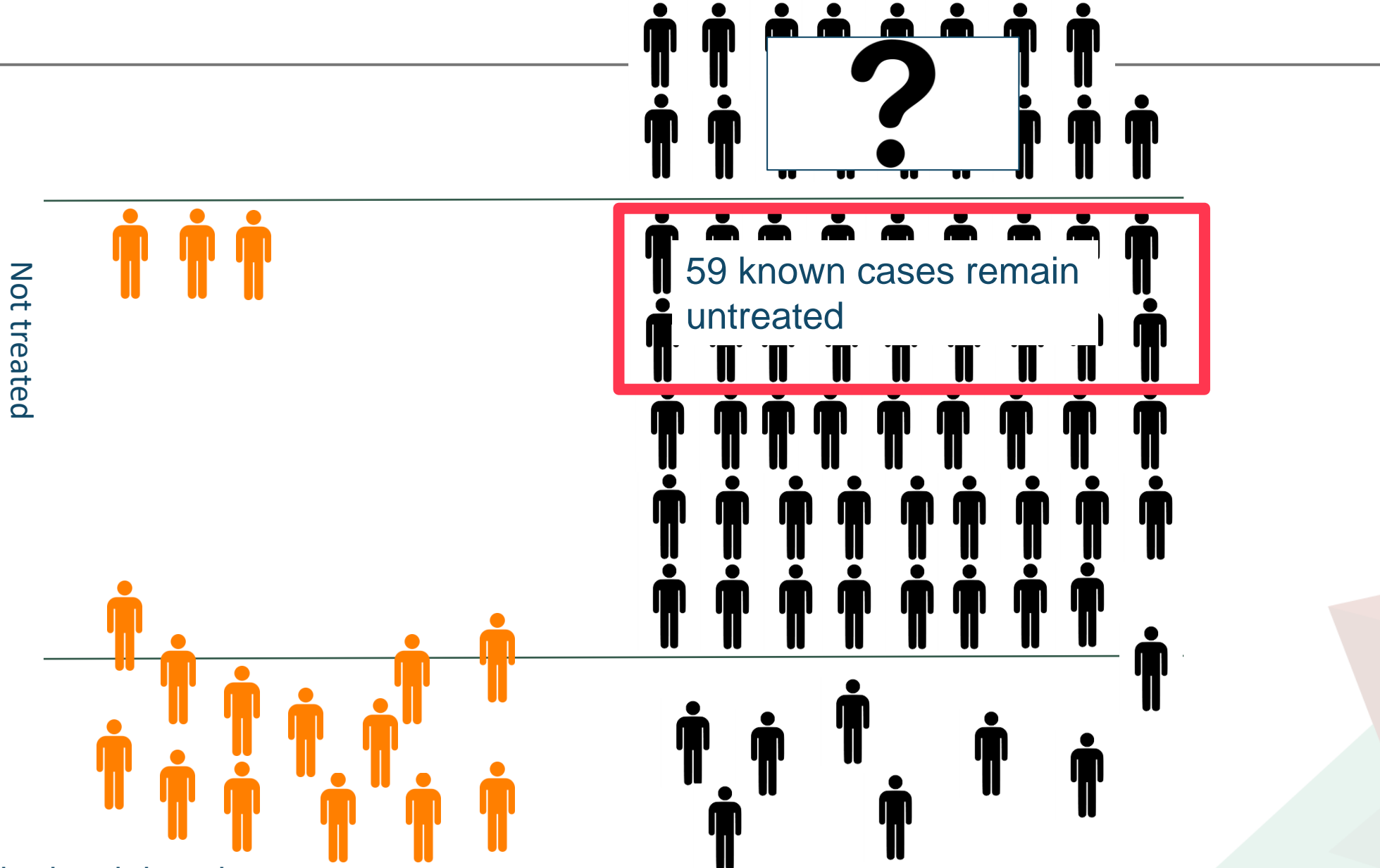


Locally available treatment



*For those cases >3 months post treatment

Challenges to meet elimination

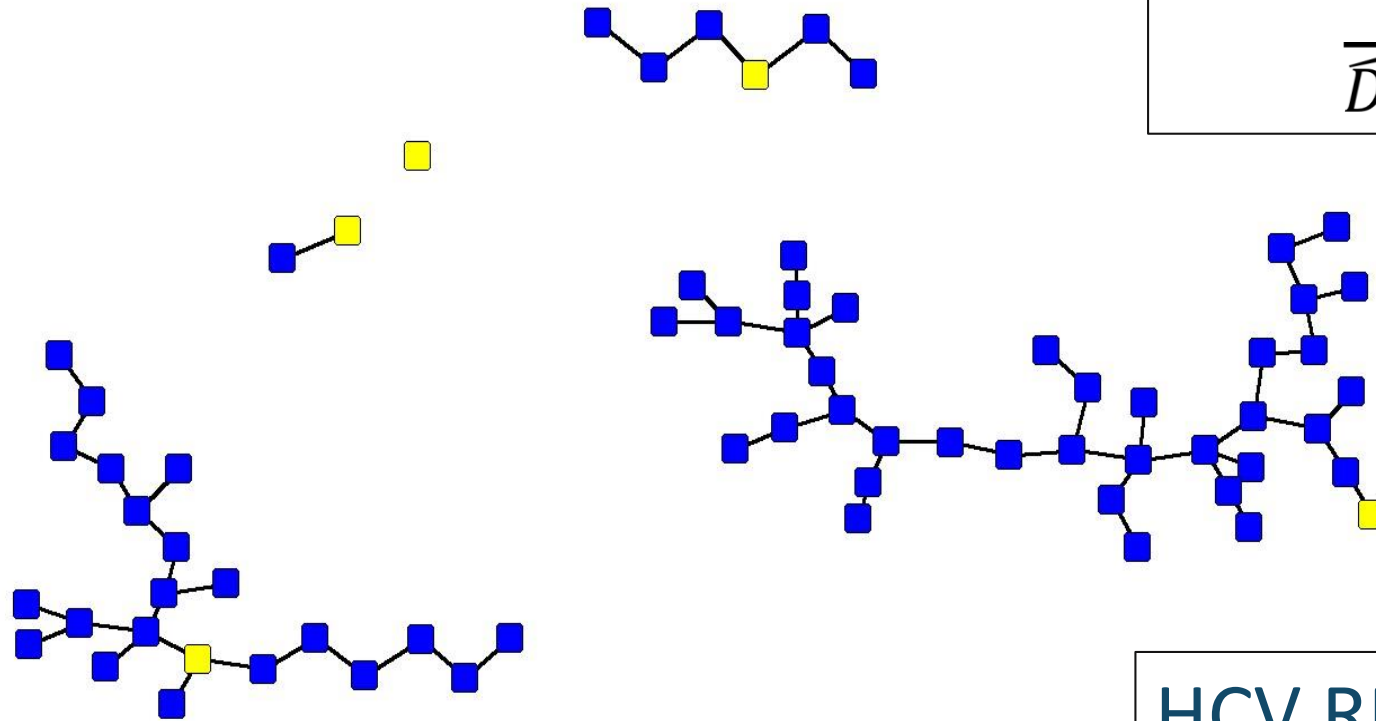


Not treated

59 known cases remain untreated

Unpublished real-time data

Redefining the Hepatitis C disease burden

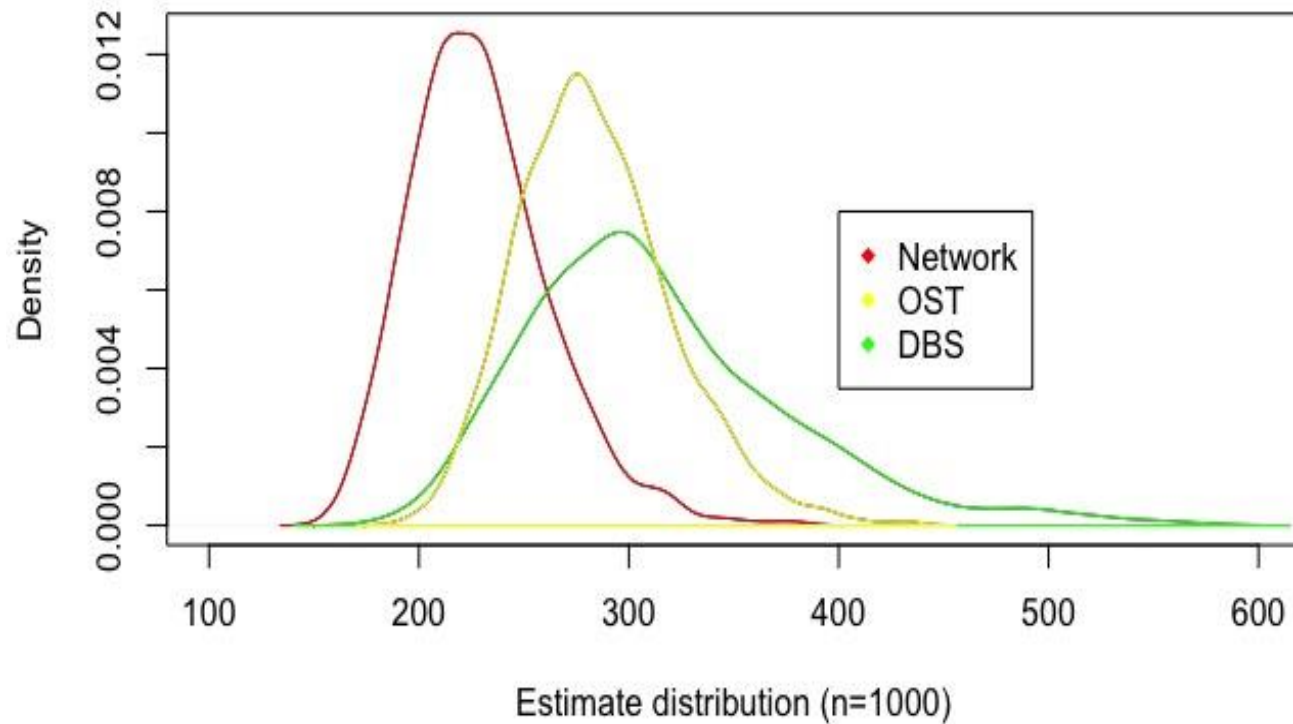


$$\frac{\widehat{D}_B \cdot \widehat{C}_{B,A}}{\widehat{D}_A \cdot \widehat{C}_{A,B} + \widehat{D}_B \cdot \widehat{C}_{B,A}} = \widehat{PP}_A$$

HCV RNA estimate population prevalence = **29%** (CI 13-45)

Redefining the Hepatitis C disease burden

Population size estimates



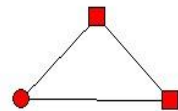
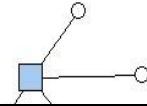
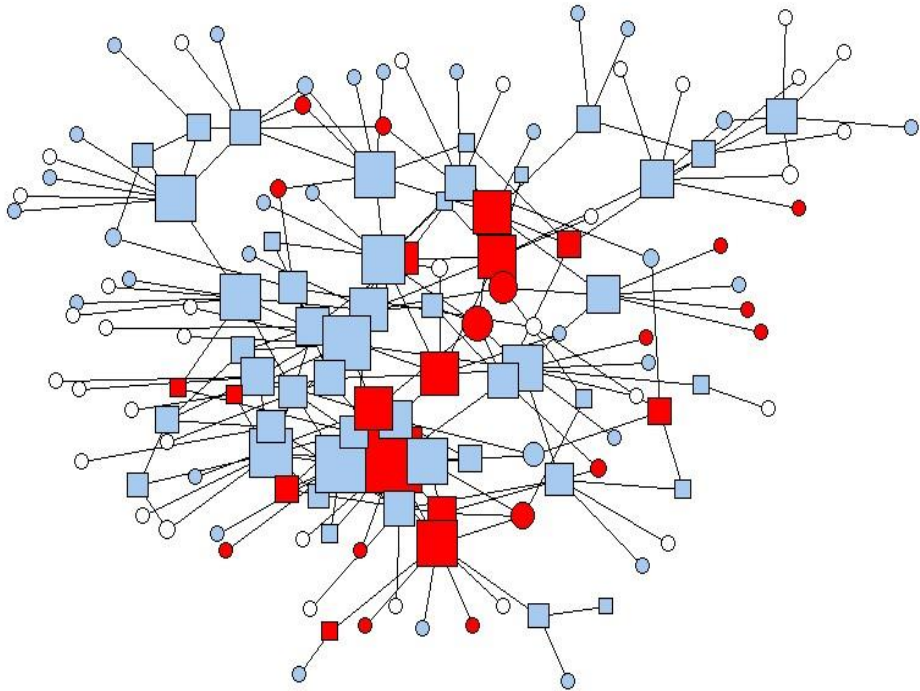
Kernel plots showing 1000 bootstrap estimates for the size of the PWID population on the IOW

Redefining the Hepatitis C disease burden

Risk Group	Number in group		HCV Prevalence in group (%)		Cases	
PWID	474	262	39	29	181	76
Ex-PWID	311		24		75	
General pop.	130,000		0.006		65	
Non-white ethnic.	400		0.01		2	
Total					323	218

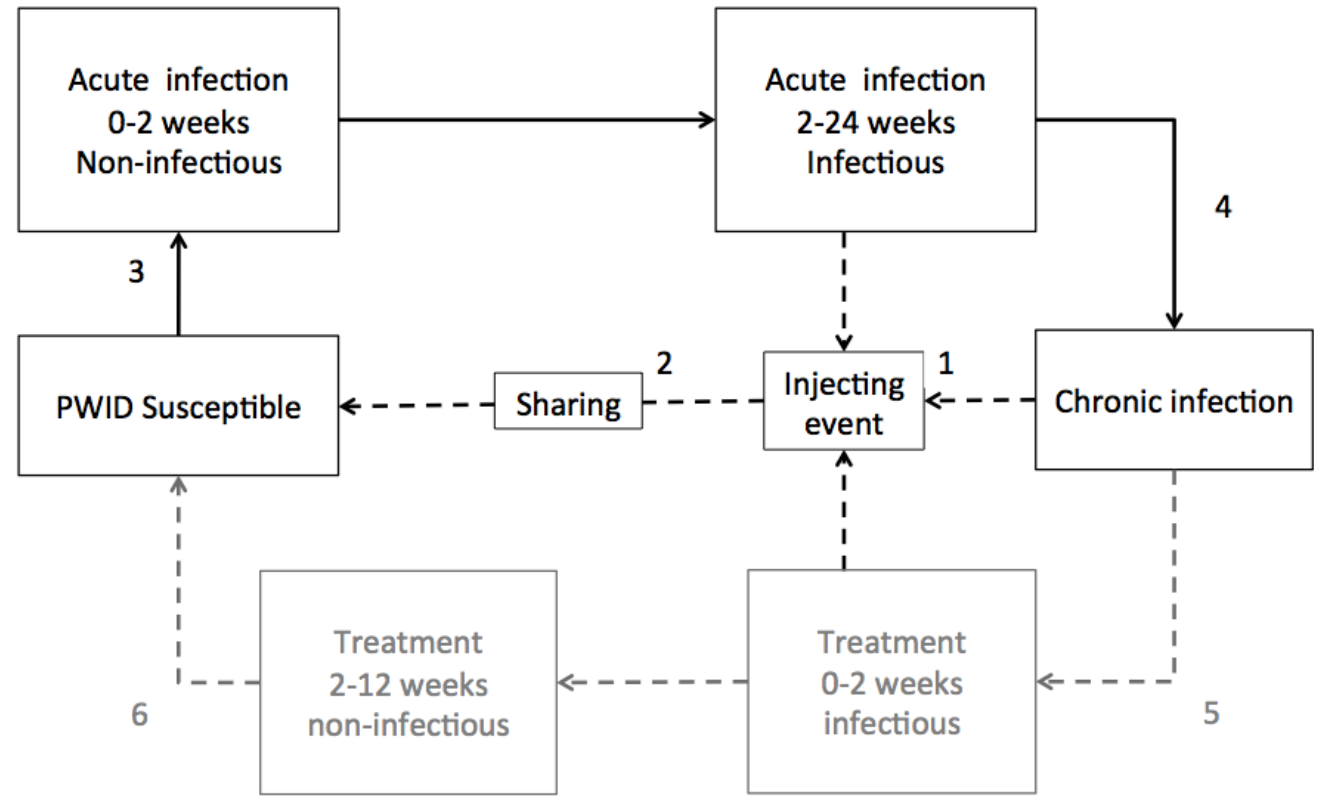
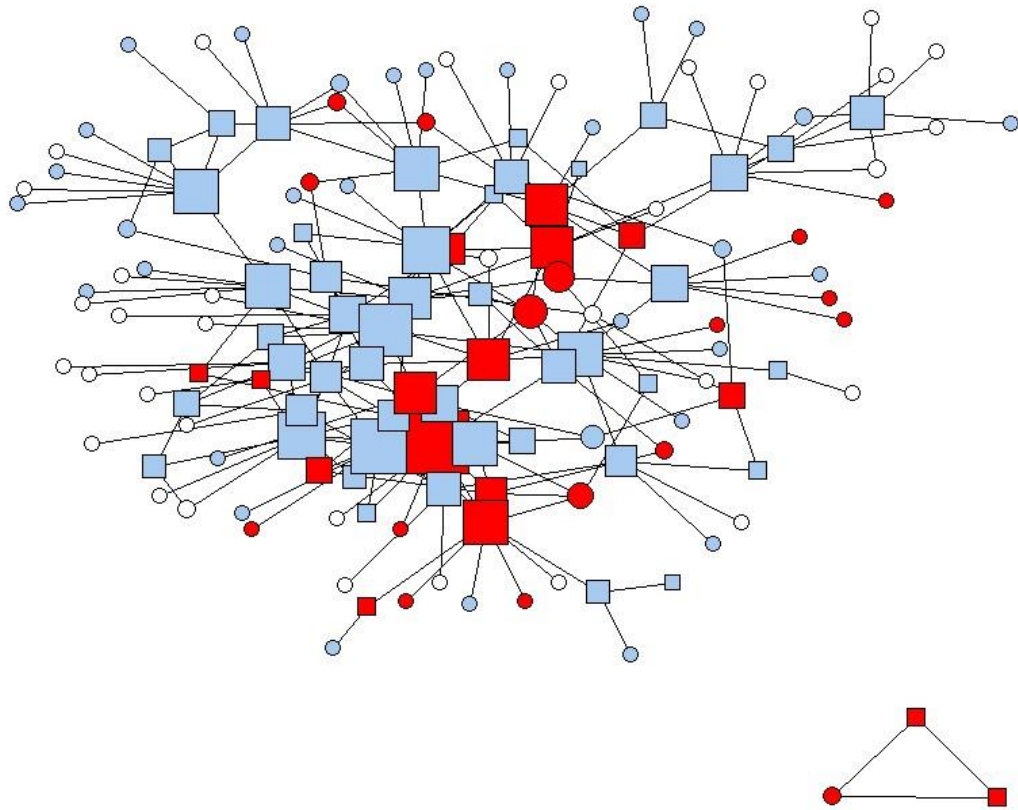
Unpublished data

Engaging the disengaged

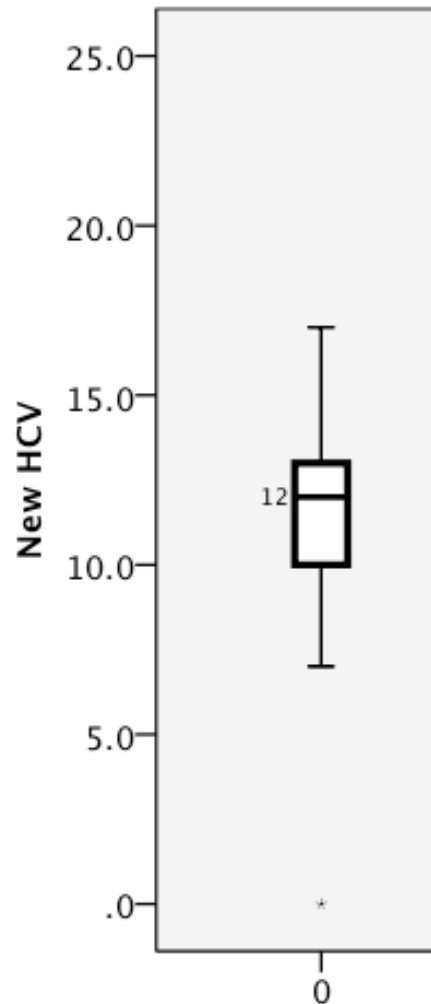


	Specificity	Sensitivity	PPV	NPV
<i>Ego-alter</i> HCV status report accuracy	0.81	0.82	0.84	0.79
<i>Network-nodal</i> report accurately	0.90	0.78	0.74	0.92

Treatment as prevention – an efficient elimination?



Treatment as prevention – an efficient elimination?



Individual based
model of HCV
treatment in the
network of PWID on
the IOW. * $P < 0.01$,
*** $P < 0.0001$

Unpublished data

Acknowledgements

Ryan Youde (medical student, University of Southampton)

NIHR CLAHRC Wessex in partnership with:

PhD supervisors:

Salim I Khakoo

Julie Parkes

Leonie Grellier

UNIVERSITY OF
Southampton

Staff at:

Gibbs and Gurnell pharmacy, Ryde, IOW

Day Lewis Pharmacy, Shanklin, IOW

Regent pharmacy, East Cowes, IOW

IRIS drug support centre, Newport, IOW

St Mary's Hospital R&D department, IOW



GILEAD

Advancing Therapeutics.
Improving Lives.

NHS

Isle of Wight

Survey participants

Patients with HCV on the Isle of Wight


Pinnacle
HEALTH PARTNERSHIP

Thank you for listening

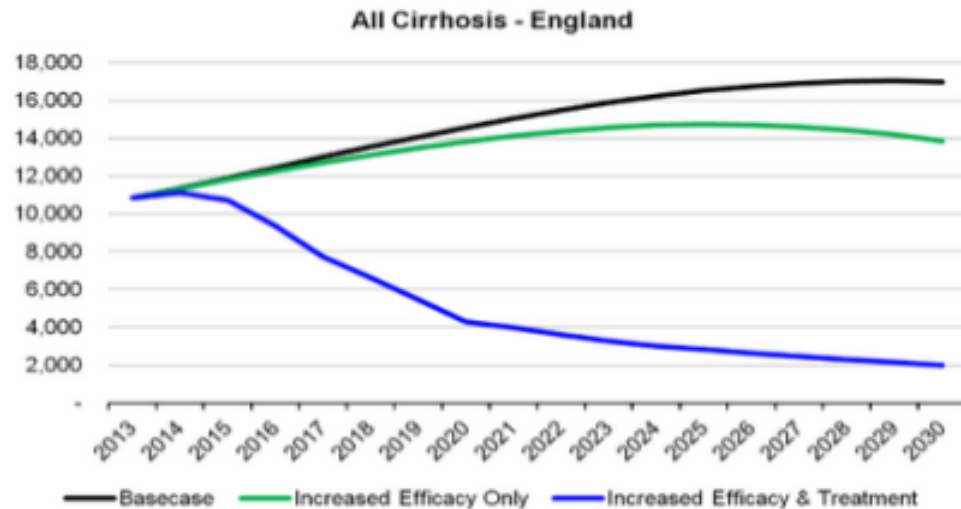
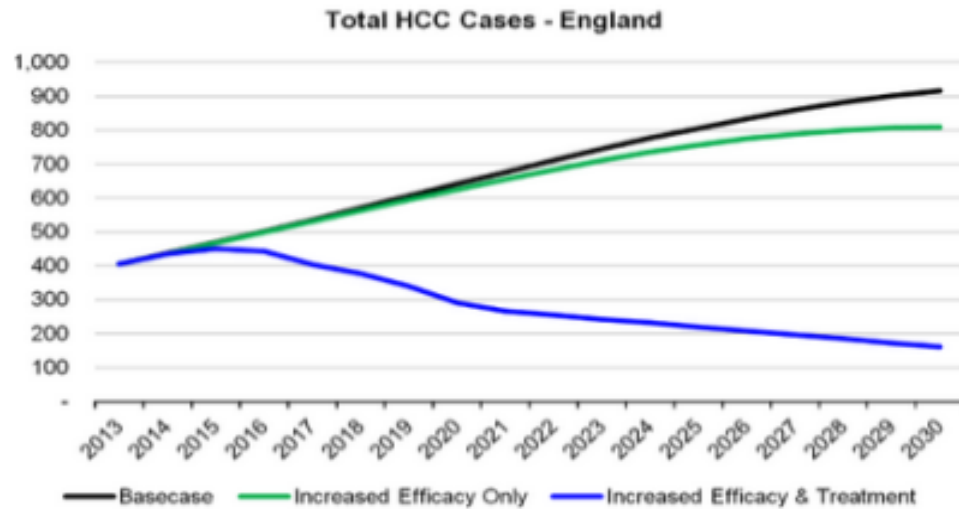
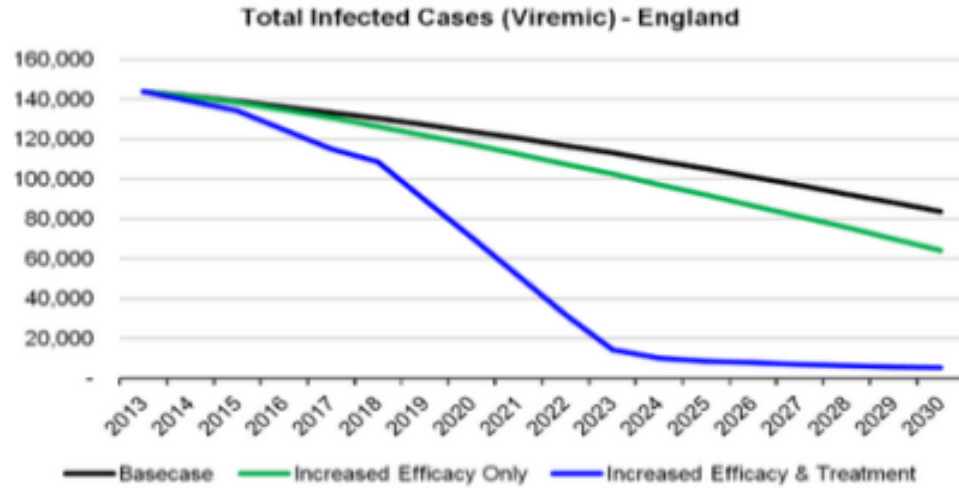


Greater Manchester Elimination Plans

Andy Ustianowski

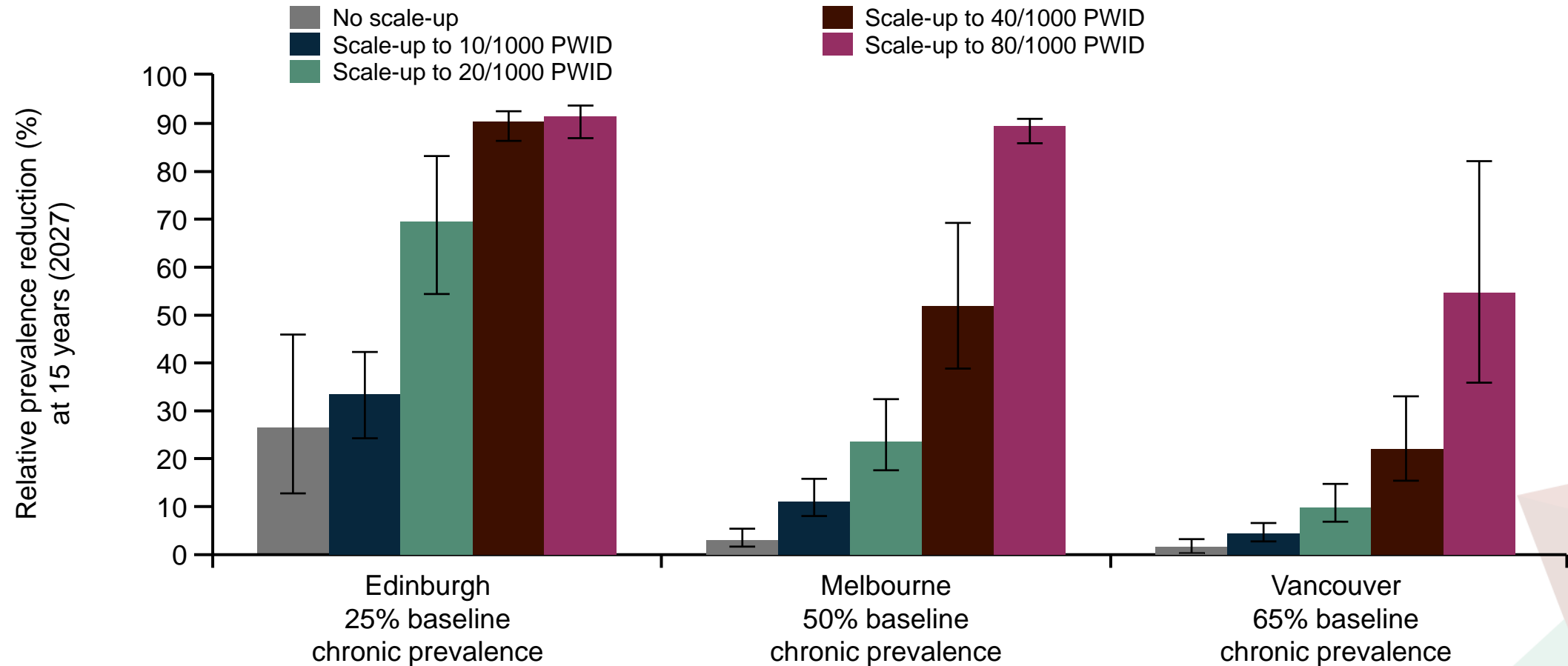


Elimination is possible

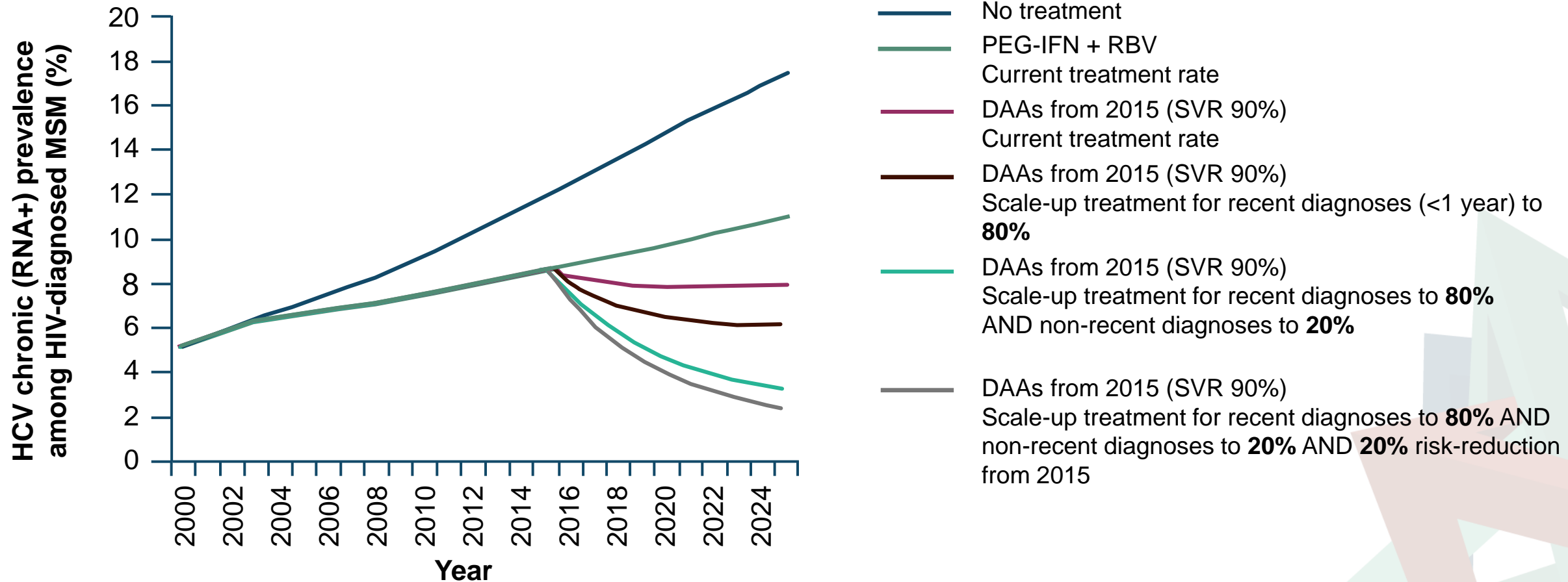


There is modelling – People Who Inject Drugs

Modelling HCV prevalence at 15 years with DAAs

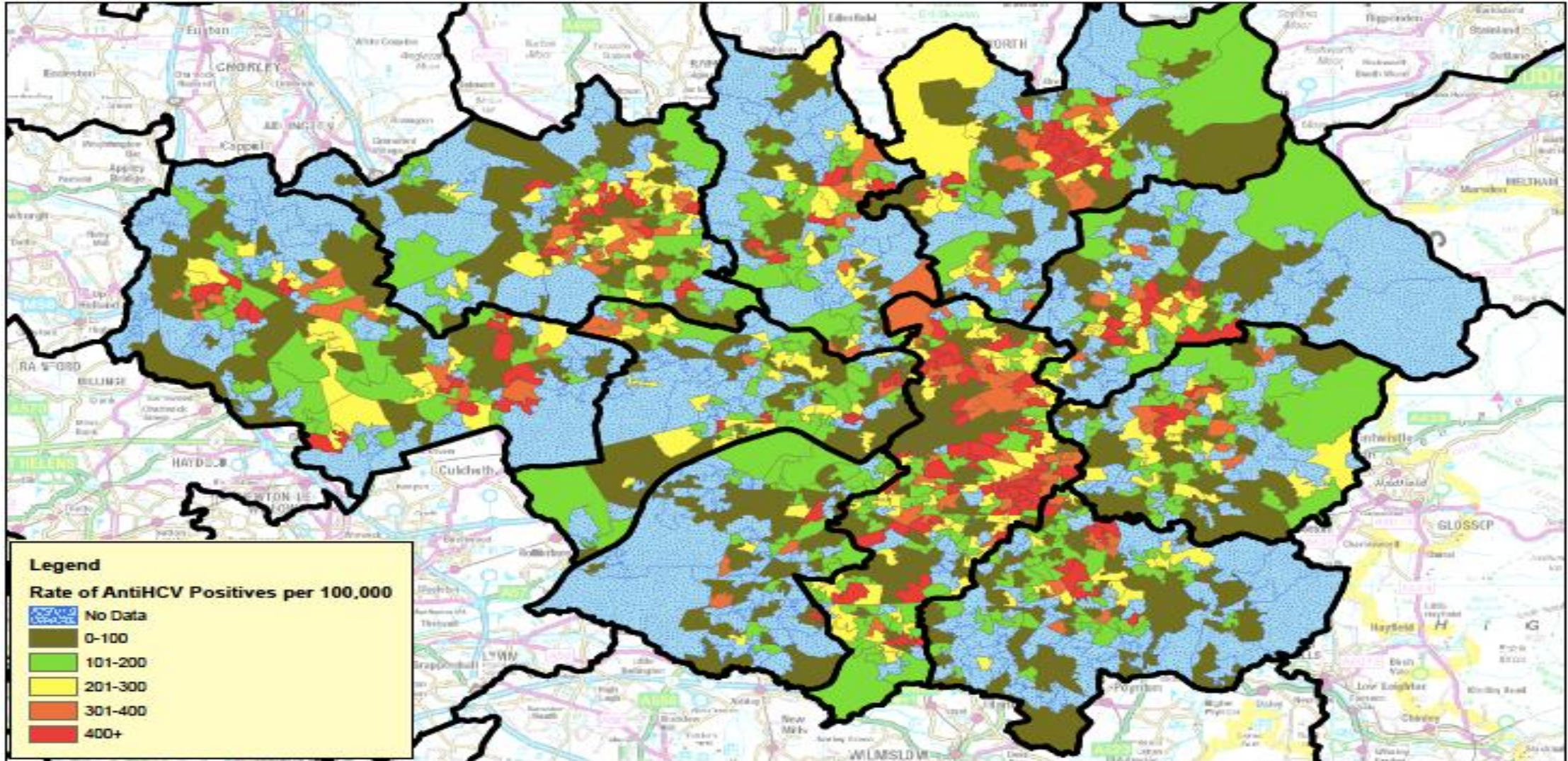


There is modelling – Men who have Sex with Men

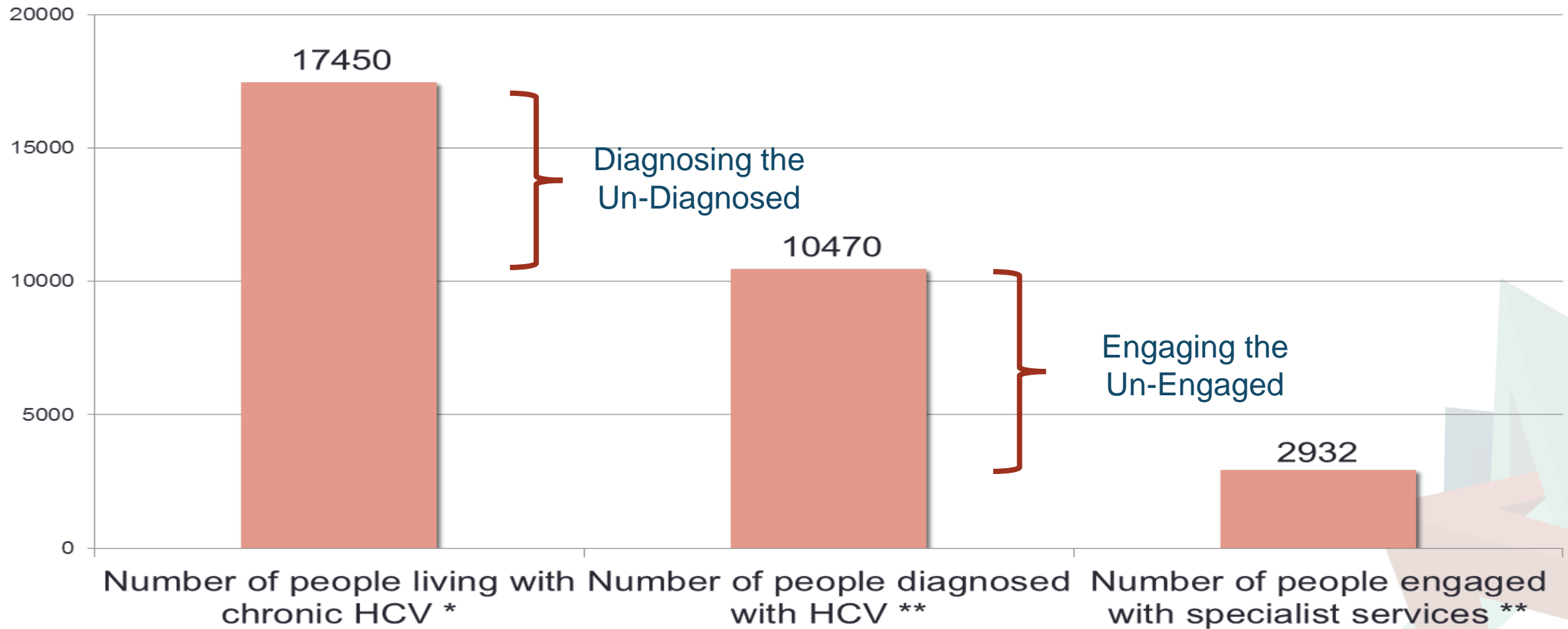


DAA: direct-acting antiviral; MSM: men who have sex with men; PEG-IFN: pegylated interferon; SVR: sustained virological response

GM HCV Elimination



Attrition Tree... Greater Manchester

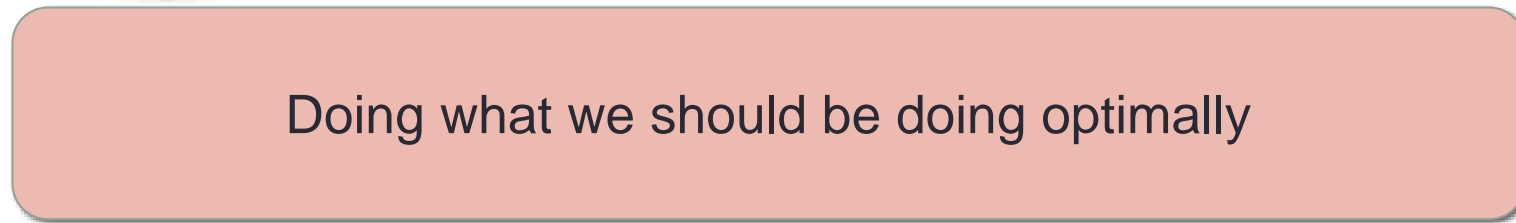
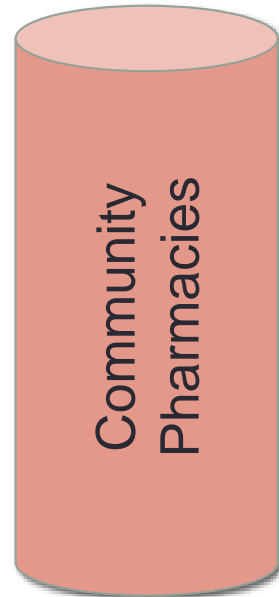


*Based on data from <https://www.gov.uk/government/publications/hepatitis-c-commissioning-template-for-estimating-disease-prevalence>

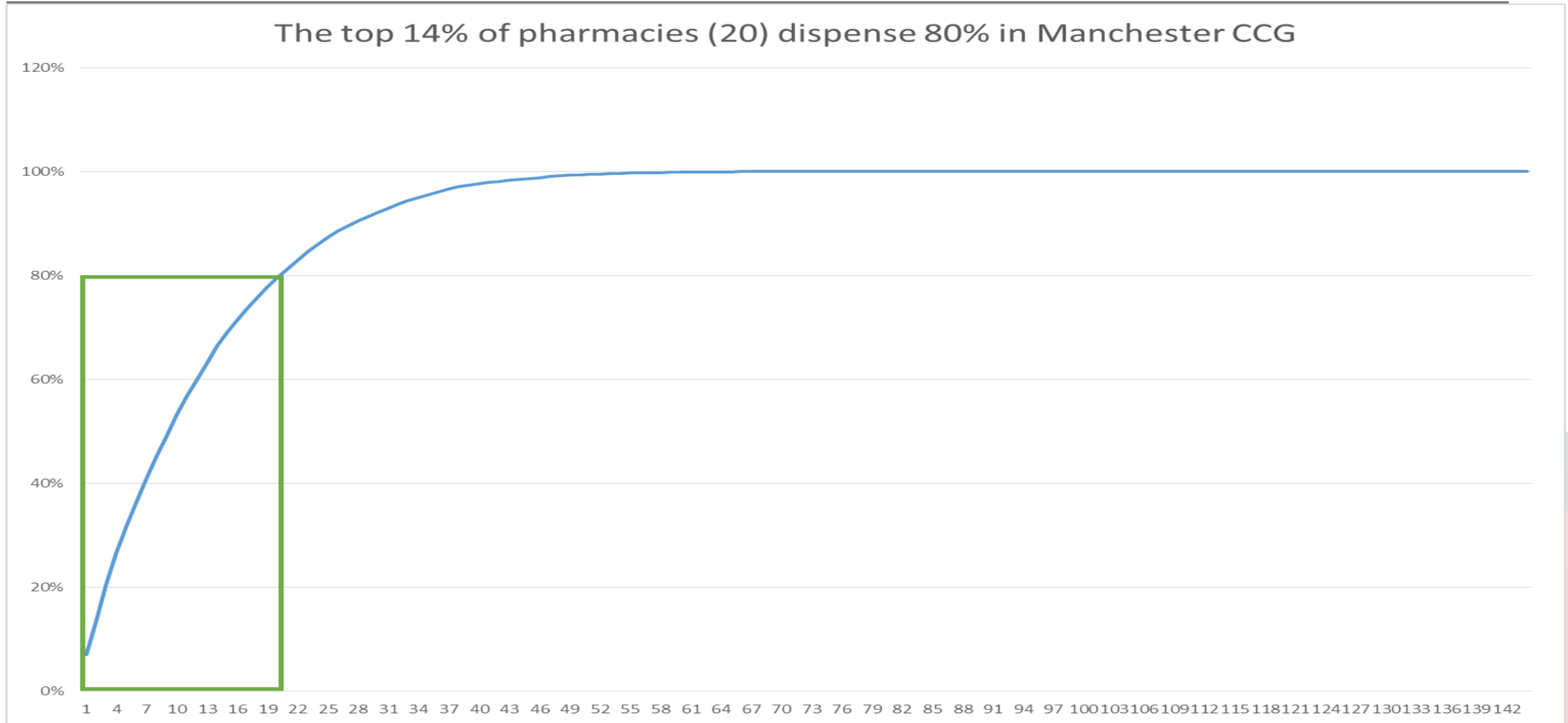
** 60% aware of diagnosis, based on data from Health Protection reported in (1)

***28% patients diagnosed with chronic HCV in 2014 seen by specialist in 2014 reported in (1)

GM HCV Elimination Strategic Pillars

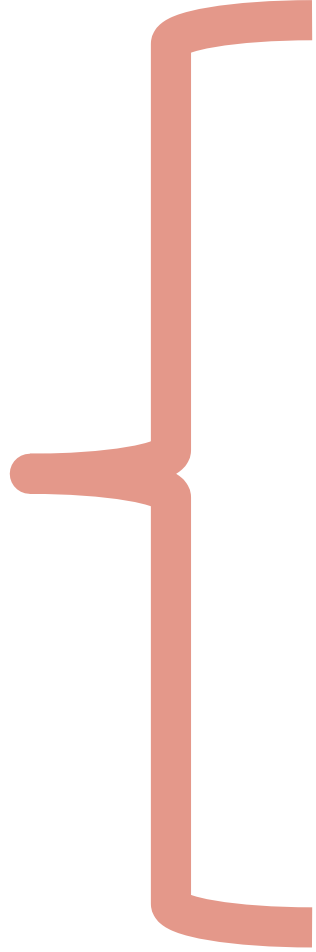


Analysis of pharmacies who dispense heroin substitutes identifies concentration within CCG's (hotspots)



GM HCV Elimination Plan

Informatics & Data



Community
Pharmacies

Network Treating

Interrogation of
Records

Rapid Prison
Diagnosis &
Treatment

Primary Care +
A&E Testing

Doing what we should be doing optimally



Where are we now?

- An 'HCV Elimination Alliance' has been created
- We have buy-in from the Health & Social Care Partnership ('DevoManc') –
 - “Exemplar project”
- Formal business case being finalised
- Scoping continuing
- Multiple meetings with stakeholders
- Planned commencement first quarter 2018/19



Measuring Patient Outcomes/Experience

Charles Gore
CEO, The Hepatitis C Trust



ODN Service Specification

Domain 4 Ensuring that people have a positive experience of care

Overarching indicator:

Patient experience of hospital care

Improvement area:

Patient experience of outpatient services

This service specification will ensure that patients receive care through an Operational Delivery Network. Outpatient hepatitis C treatment and care will be delivered in a setting that is appropriate, and by staff who are appropriate, for each patient – as an example by a blood-borne virus nurse in community drug services but as part of a specialist service with the optimum specialist oversight. Research indicates that in areas where treatment is exclusively available in a hospital setting this is a barrier for some patients, reducing the numbers coming forward for curative treatment.

Service providers will provide outcomes data on:

Patient experience of outpatient services through a patient questionnaire developed and validated with appropriate patient representative groups



Things to consider in measuring outcomes/experience

Purpose

- To improve patient health?
- To compare ODNs?
- To improve services?
- To measure patient-perceived improvements in health?
- To measure wider impacts of HCV treatment?

Method

- A survey?
 - ❖ Paper?
 - ❖ Online?
- Interviews?
 - ❖ In person?
 - ❖ By telephone?
- Who, how and when to engage the patients to participate?
- Ease of collecting data/response rate/ease of analysis
- Who? Everyone or a sample?

Timing and location

- Over what time period? How often?
- One survey or more?
- As soon as possible after what the survey is intended to measure?
- At first clinic appointment or initiation of treatment (e.g. to capture the experience of getting to clinic/start of treatment)?
- At end of treatment (e.g. to measure the whole experience?)
- Where?
- What about people who drop out of the pathway/services?

Accessibility

- Language?
- Simplicity?
- Length/number of questions?
- Assistance?

The questions

- Free form questions?
- What scale to use when rating things (0 – ?)
- How much about the respondent?

The questions – an ODN example

	Yes definitely	Yes to some extent	Not really	Definitely not	Does not apply
1. Was the doctor/nurse polite and considerate?					
2. Did the doctor/nurse listen to what you had to say?					
3. Did the doctor/nurse give you enough opportunity to ask questions?					
4. Did the doctor/nurse answer all your questions?					
5. Did the doctor/nurse explain things in a way you could understand?					
6. Are you involved as much as you want to be in the decisions about your care and treatment?					
7. Did you have confidence in the doctor/nurse?					
8. Did the doctor/nurse respect your views?					
9. Did the doctor/nurse respect your privacy and dignity?					
10. By the end of the consultation did you feel better able to understand and/or manage your condition and your care?					

11. Overall, how satisfied were you with the doctor/nurse that you saw?

Very satisfied Fairly satisfied Not really satisfied Not at all satisfied

12. About you

Gender Age What transport did you use to get here today

13. Please tell us what would help you in getting to future appointments?

Brief discussion

- Purpose
 - ❖ To improve patient health?
 - ❖ To compare ODNs?
 - ❖ To improve services?
 - ❖ To measure patient-perceived improvements in health?
 - ❖ To measure wider impacts of HCV treatment?
- Next steps?
 - ❖ A short life working group?