HCV ELIMINATION IN THE US: IS IT POSSIBLE?

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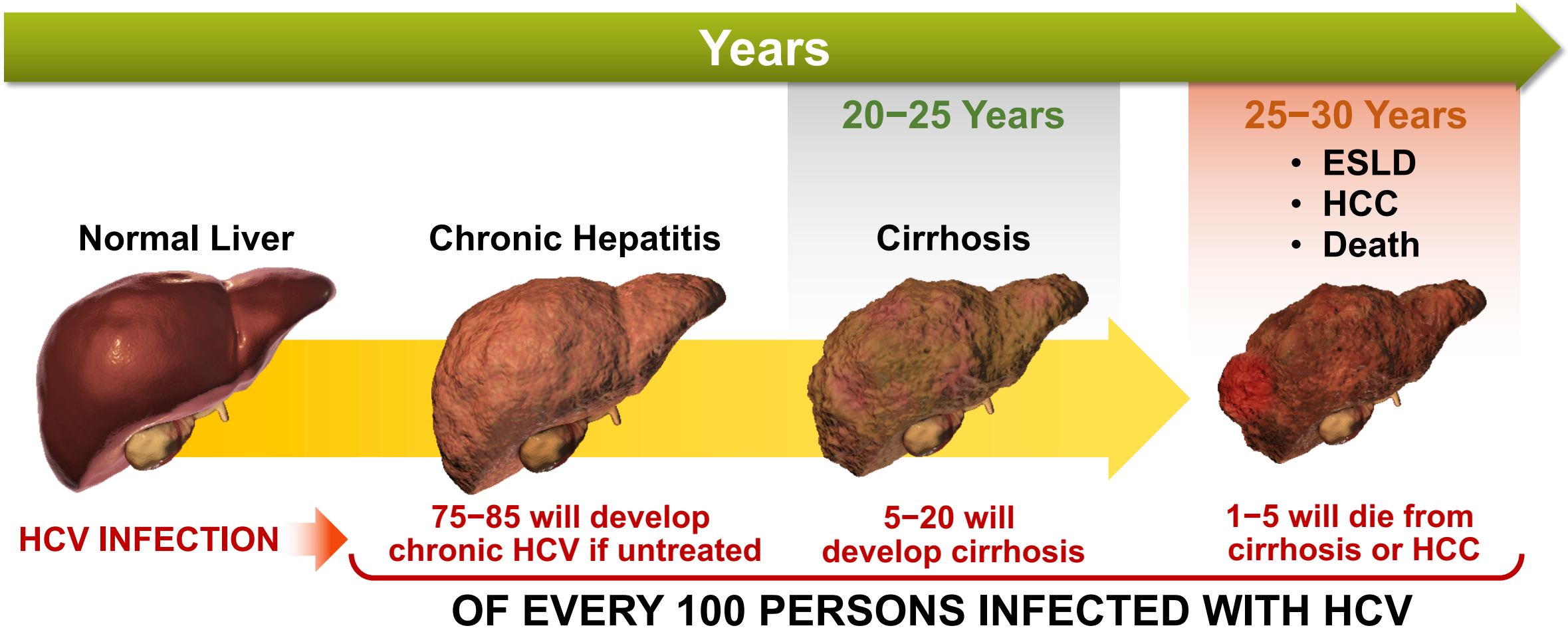
What Is Hepatitis C?

- Hepatitis C is a contagious liver disease caused by the hepatitis C virus (HCV)
- Transmission of HCV is primarily through contact with the blood of an infected person
  - Injection drug use with sharing of infected equipment
  - Sex
  - Childbirth with an HCV-infected mother
- Acute HCV infection
  - Onset within 6 months of exposure
  - Typically mild, short-term
  - Infection may clear from the body spontaneously (15%–20%)
  - Persists as chronic disease in most infected persons

CDC. Hepatitis C FAQs for Health Professionals. Last updated April 2018. https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#a8. Accessed August 2, 2018.

HCV: Disease Progression



ESLD, end-stage liver disease; HCC, hepatocellular carcinoma.

Emory University Coalition for Applied Modeling for Prevention (CAMP). www.hepvu.org. Accessed August 2, 2018. Image adapted from Hepatitis C Online. 2015. https://www.hepatitisc.uw.edu/go/evaluation-staging-monitoring/natural-history/core-concept/all. Accessed August 2, 2018.

Stages of Liver Fibrosis

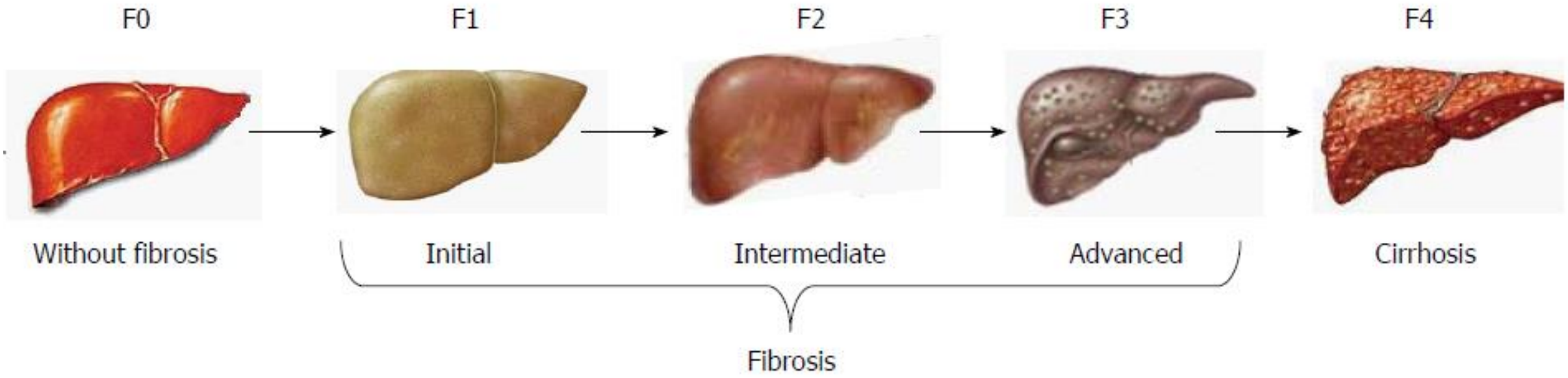


Image adapted from World J Gastroenterol. Nov 7, 2015; 21(41): 11552-11566

HCV Is Associated With Manifestations Beyond the Liver

Psychiatric
Depression

Blood
Anemia
Impaired blood clotting
Blood cancers

Immune system
Abnormal immune responses
Connective tissue disease

Kidney
Acute/chronic kidney inflammation/dysfunction
Excess fluid retention

Eye
Inflammation
Ulcerations

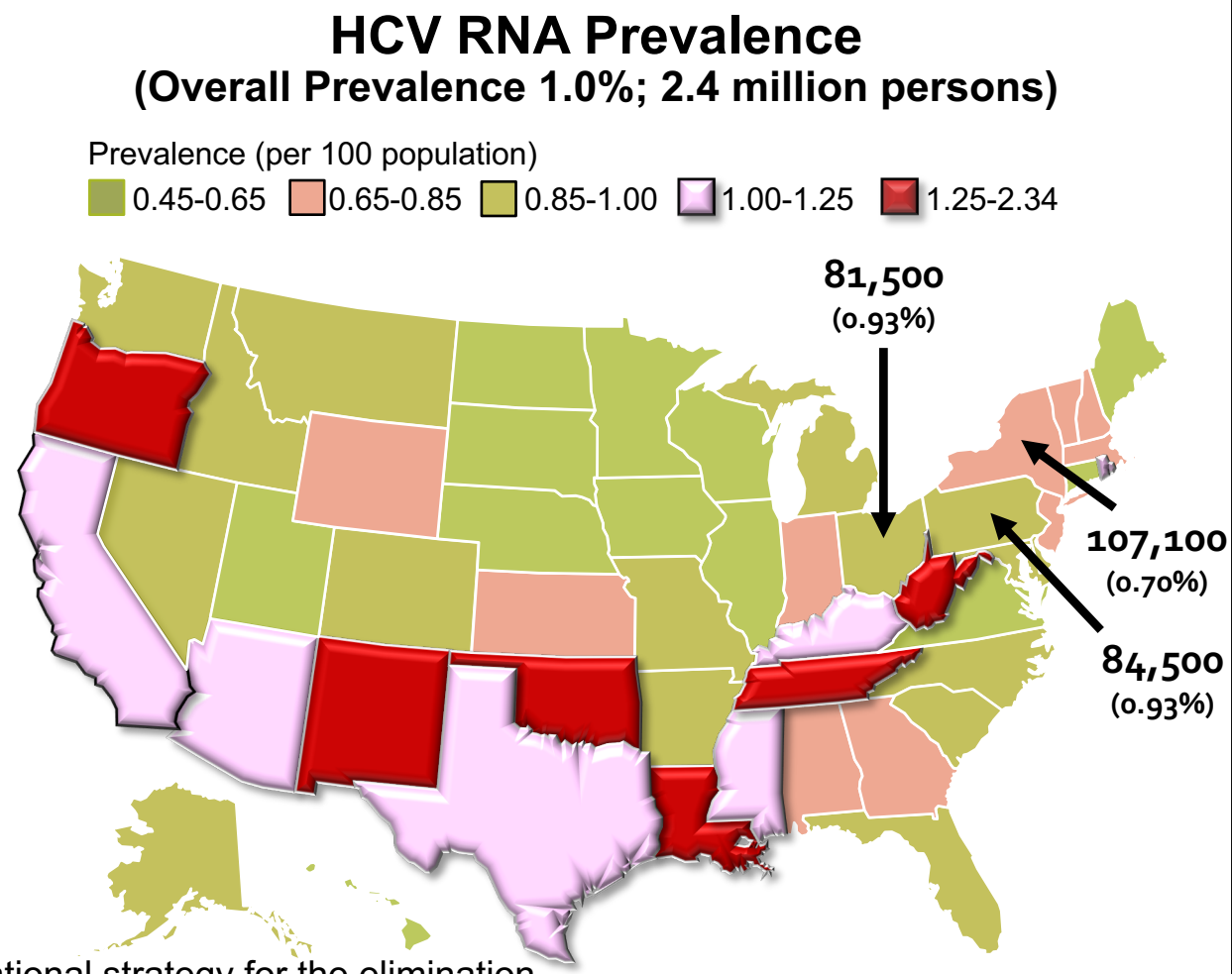
Blood Vessels
mmune-triggered damage resulting in skin, joint, muscle, gastrointestinal tract, heart, kidney, and nervous system manifestations

Skin
Photosensitivity
Immune-triggered skin rash, lesions, or ulcerations

Nerves and Muscles
Muscle weakness/pain
Joint inflammation/pain

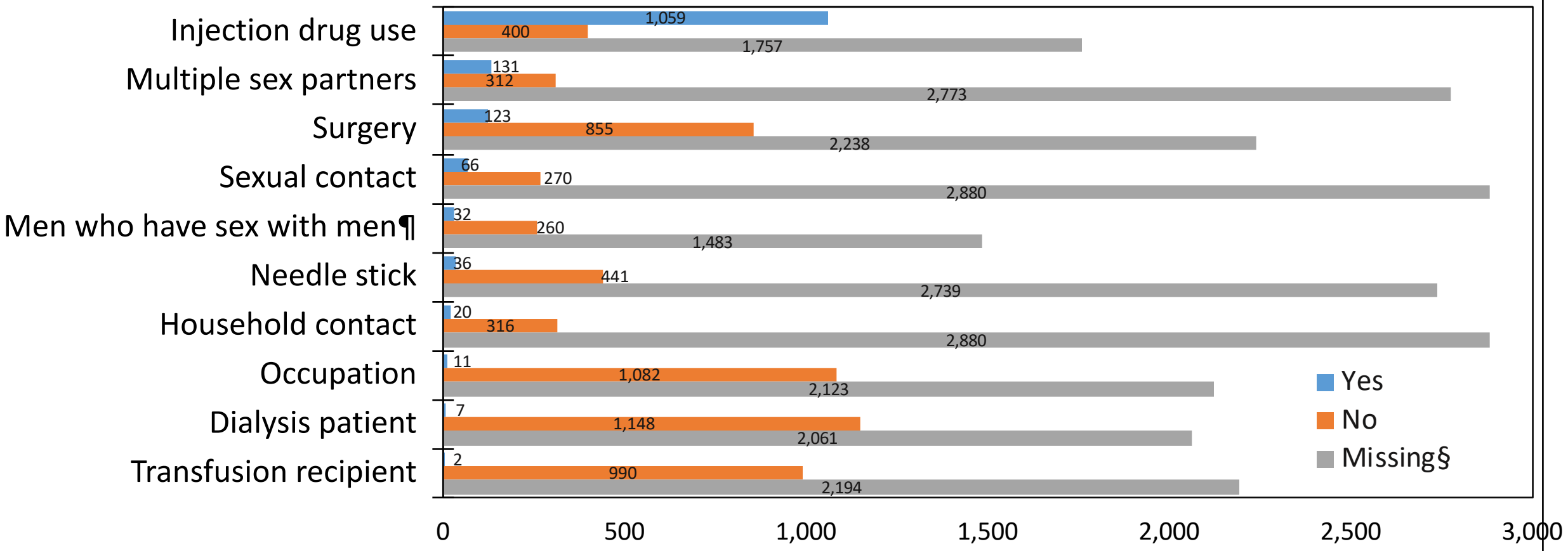
Chronic HCV Infection in the US: ~2.4 Million

- 2030 HCV elimination goals (relative to 2015)
  - 90% reduction in incidence
  - 65% reduction in mortality (avert 28,800 deaths)
- Meeting these goals requires
  - Diagnosing 90% of persons infected
  - Treating 80% of persons diagnosed



Rosenberg ES, et al. *JAMA Netw Open.* 2018;1:e186371.
National Academies of Sciences, Engineering, and Medicine. 2017. A national strategy for the elimination of hepatitis B and C: Phase two report. Washington, DC: The National Academies. WHO. Global Hepatitis Report 2017.

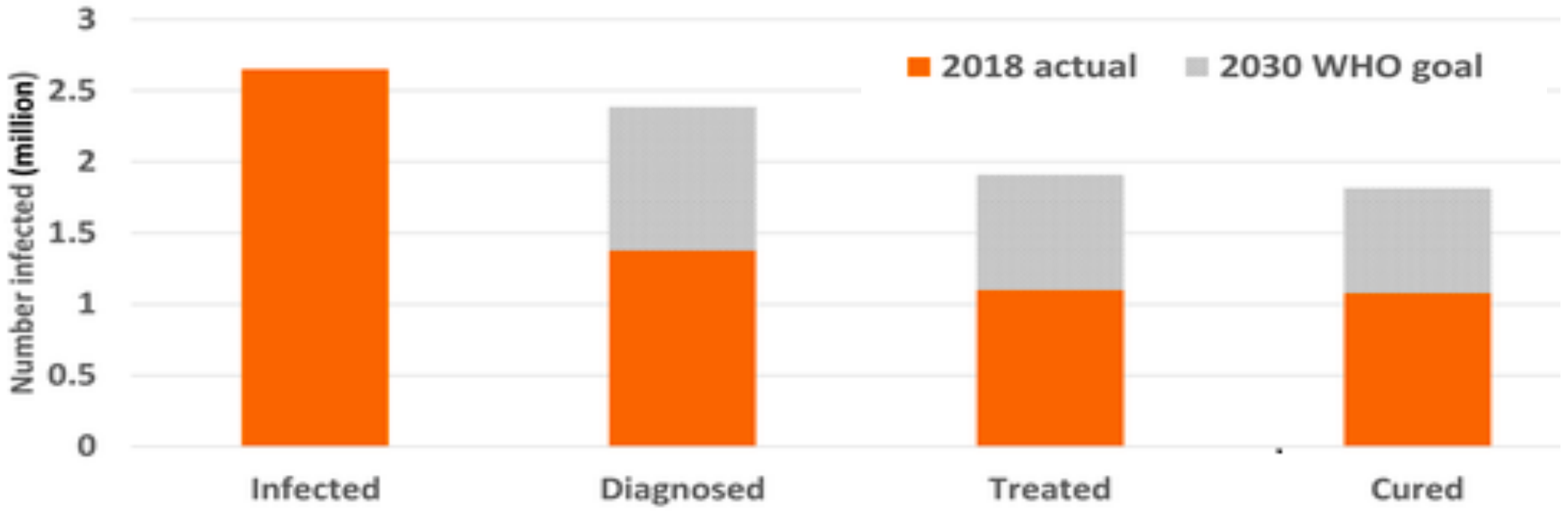
Reported cases of acute hepatitis C, by risk behavior/exposure, United States, 2017



Source: CDC, National Notifiable Diseases Surveillance System.

Treatment Cascade for People With Chronic HCV Infection *United States, 2018*

By year-end 2018, there were still a projected 2.71 million persons with ongoing HCV infection out of a total of 4.29 million who were once infected.



Thomas DL. *Clin Liver Dis.* 2020;16(1):8-11.

The Barriers

Patient

- Comorbidities
- Competing priorities
- Unstable housing
- Lack of transportation
- Limited knowledge of HCV
- Stigma around HCV
- Prior negative experiences in health care settings

Provider

- Perceived lack of value in treating some patients
- Concerns about adherence
- Medical contraindications
- Competing priorities
- Limited time

System

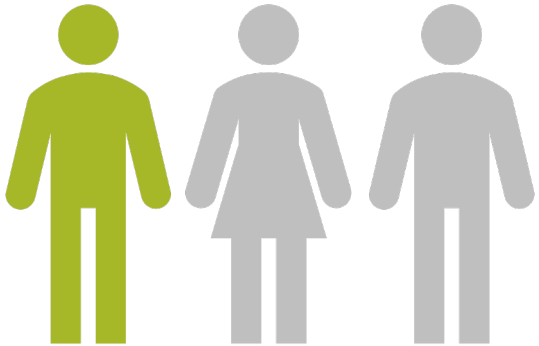
- Insurance access
- Availability of HCV providers
- Payer restrictions for DAA approval
- Payer requirements prior to DAA approval

Slide adapted from Jennifer Price, MD, PhD.

Two Epidemics Intertwined

HCV Infection Is a Serious Health Consequence of Injection-Drug Use

- HCV antibody prevalence among people who inject drugs (PWID) is estimated to be 70% to 77%[1]



1 of 3 people who inject drugs acquires HCV infection in their first year of injecting[2]

45% to 85% of individuals chronically infected with HCV are unaware of their status[1]

HCV is the most common chronic blood-borne infection in the US

CDC. Surveillance of Viral Hepatitis—United States, 2015. https://www.cdc.gov/hepatitis/statistics/2015surveillance/pdfs/2015HepSurveillanceRpt.pdf. Accessed August 2, 2018; 2. Hagan H, et al. *Am J Epidemiol.* 2008;168(10):1099-1109.

The Opioid Epidemic in the United States

48,006

deaths attributed to overdosing on synthetic opioids other than methadone (in 12-month period ending June 2020)[3]

14,480

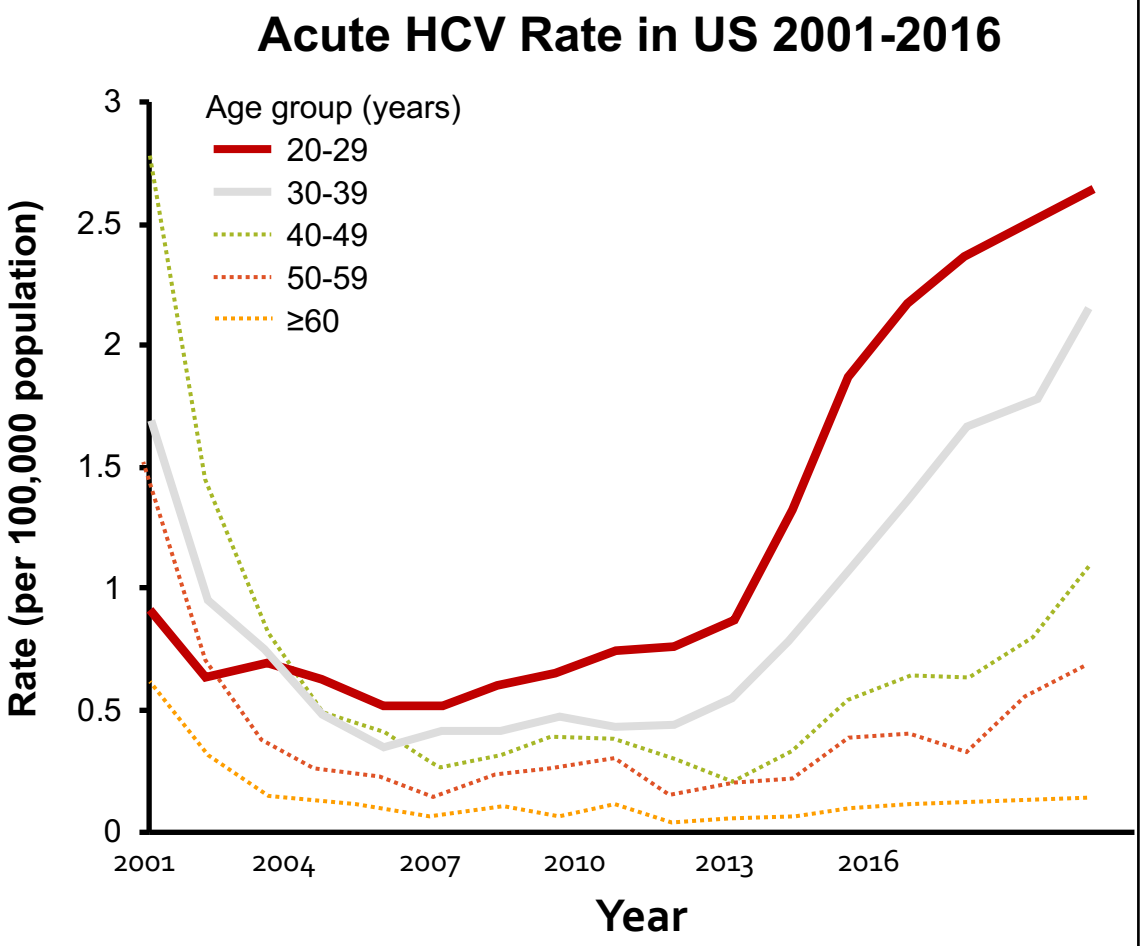
deaths attributed to overdosing on heroin (in 12-month period ending June 2020)[3]

1. 2019 National Survey on Drug use and Health, 2020
2. NCHS Data Brief No 324, Dec 2020
3. NCHS, National Vital Statistics system. Provisional Drug Overdose Death Counts

Source: HHS.gov/opioids Updated February 2021

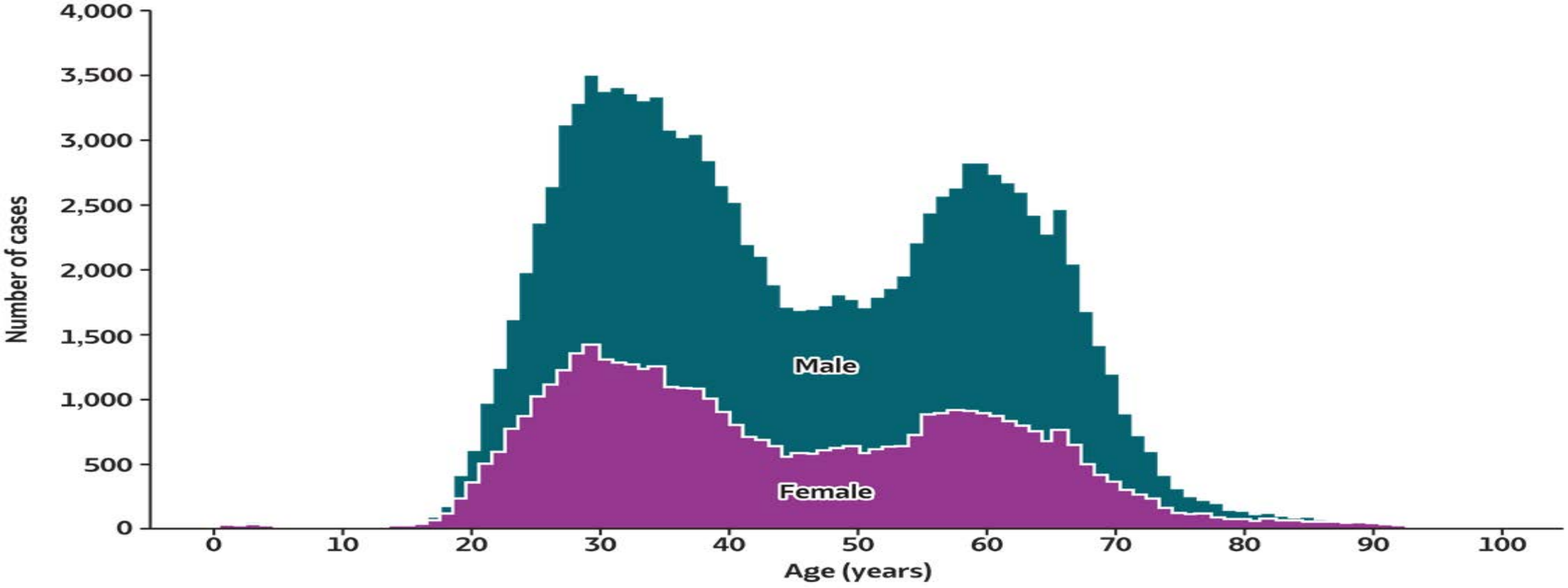
Changing Trends in Acute HCV in the US (2001-2016)

- New acute HCV infection in 2016 (n=41,200)
- 3.5-fold increase in new cases since 2010
  - Increase reflects new infections associated with rising rates of injection-drug use
- Most newly acquired acute HCV infections
  - Young
  - White
  - PWIDs
  - Non-urban areas



CDC. Surveillance for viral hepatitis - United States, 2016. https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm.

Number of newly reported* chronic hepatitis C virus infection cases†, by sex and age — United States, 2019



Source: CDC, National Notifiable Diseases Surveillance System.

* During 2019, cases of chronic hepatitis C were either not reportable by law, statute, or regulation; not reported; or otherwise unavailable to CDC from AZ, AK, CA, DE, DC, HI, IN, KY, MS, NV, NC, RI , TX

†Only confirmed, newly reported, chronic hepatitis C cases are included.

Universal HCV screening for American adults

Screening for Hepatitis C Virus (HCV) Infection

Chronic HCV is a common infection in the United States that can lead to liver failure, liver transplantation, and death. Antiviral treatment for HCV is highly effective in curing it.

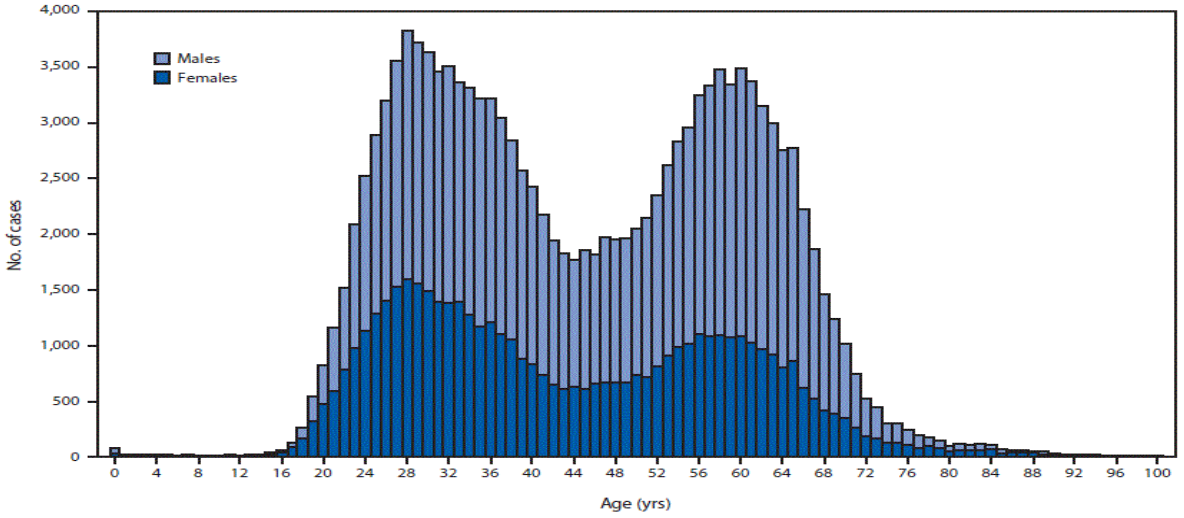
Population

Adults aged 18 to 79 years (including pregnant persons) who do not have any signs or symptoms of HCV infection and who do not have known liver disease

USPSTF recommendation

The USPSTF recommends screening for HCV infection in adults aged 18 to 79 years.

Number of newly reported chronic HCV by sex and age, 2018



All persons with risk factors (eg, persons with HIV, prior recipients of blood transfusions, persons who ever injected drugs and shared needles, and persons who are born to an HCV-infected mother) should be tested for HCV, with periodic testing while risk factors persist

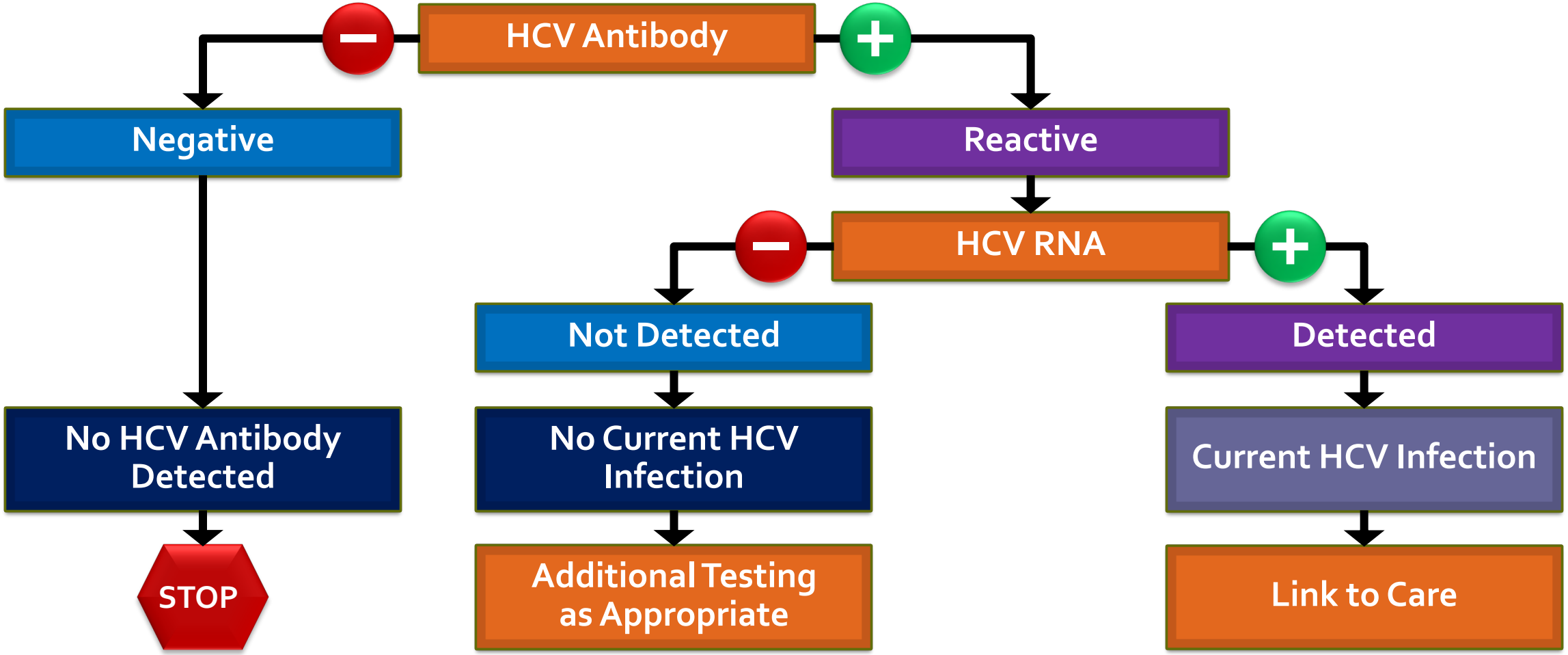
MMWR April 10, 2020 / 69(14);399–404; US Preventive Services Task Force. JAMA. 2020;323(10):970–975AMA 2020

Screening During Pregnancy

May 2021: The American College of Obstetricians and Gynecologists (ACOG)updated its hepatitis C screening guidance to recommend screening for **all pregnant individuals during each pregnancy**.

www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2021/05/routine-hepatitis-c-virus-screening-in-pregnant-individuals

Recommended Testing Sequence for Identifying HCV Infection

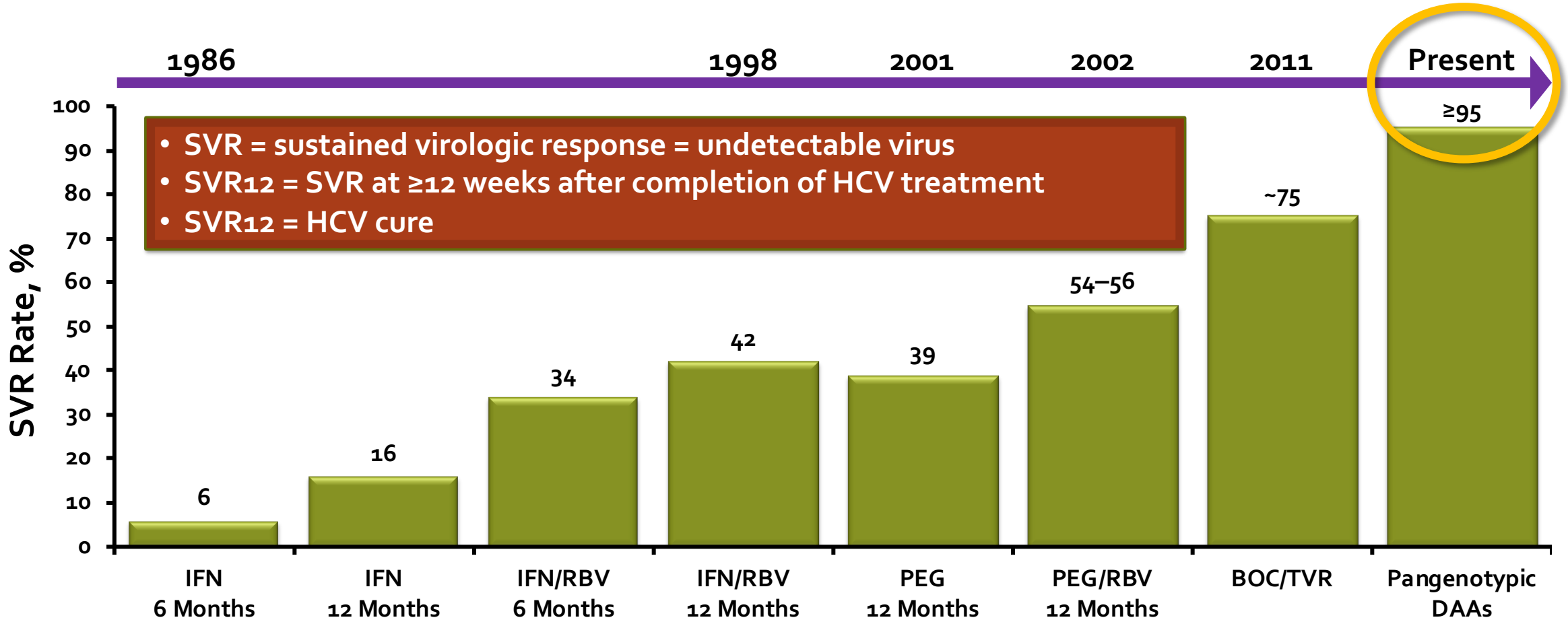


RNA, ribonucleic acid.

CDC. *MMWR Morb Mortal Wkly Rep.* 2013;62(18):362-365. https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6218a5.htm. Accessed August 2, 2018.

Evolving HCV Treatment

It's Come a Long Way

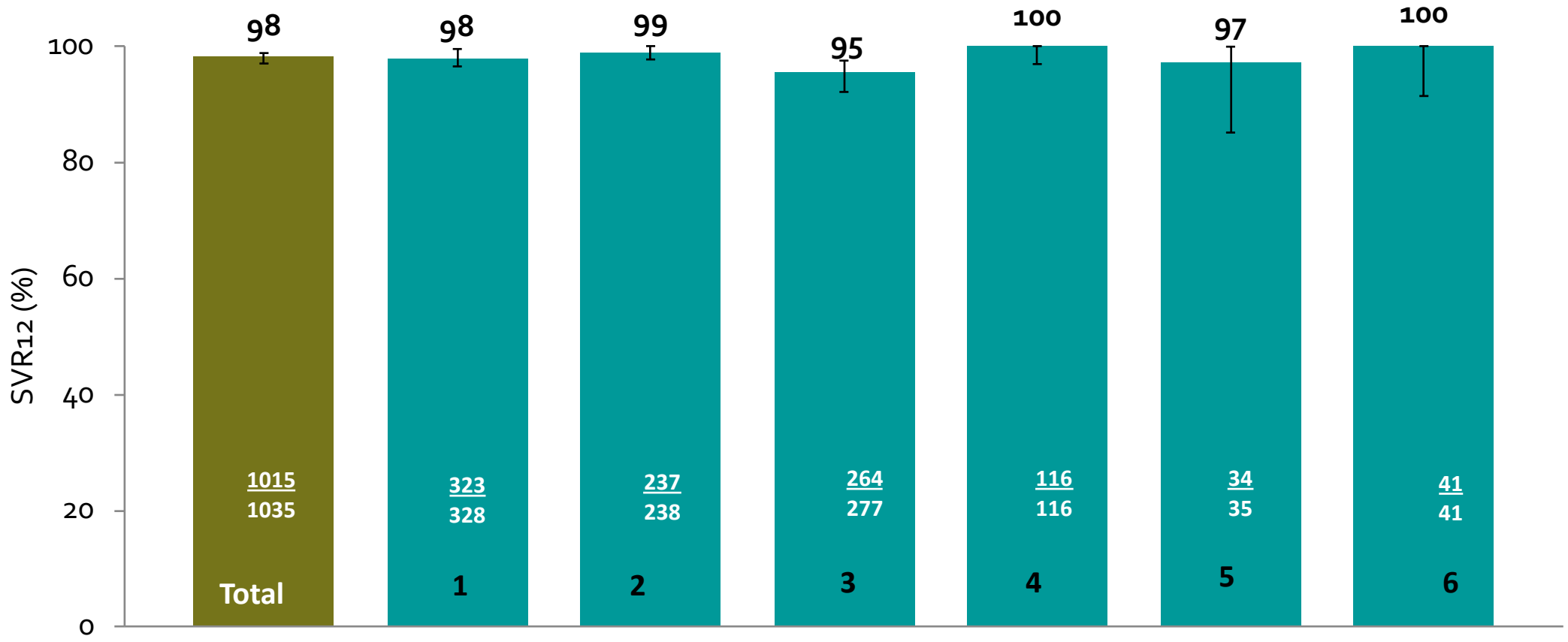


BOC, boceprevir; DAA, direct-acting antiviral (drug); IFN, interferon; PEG, pegylated interferon; RBV, ribavirin; SVR, sustained virologic response; TVR, telaprevir.
Adapted from Strader DB, Seeff LB. *Clin Liver Dis.* 2012;1(1):6-11.

Treatment with New Pangenotypic Regimens

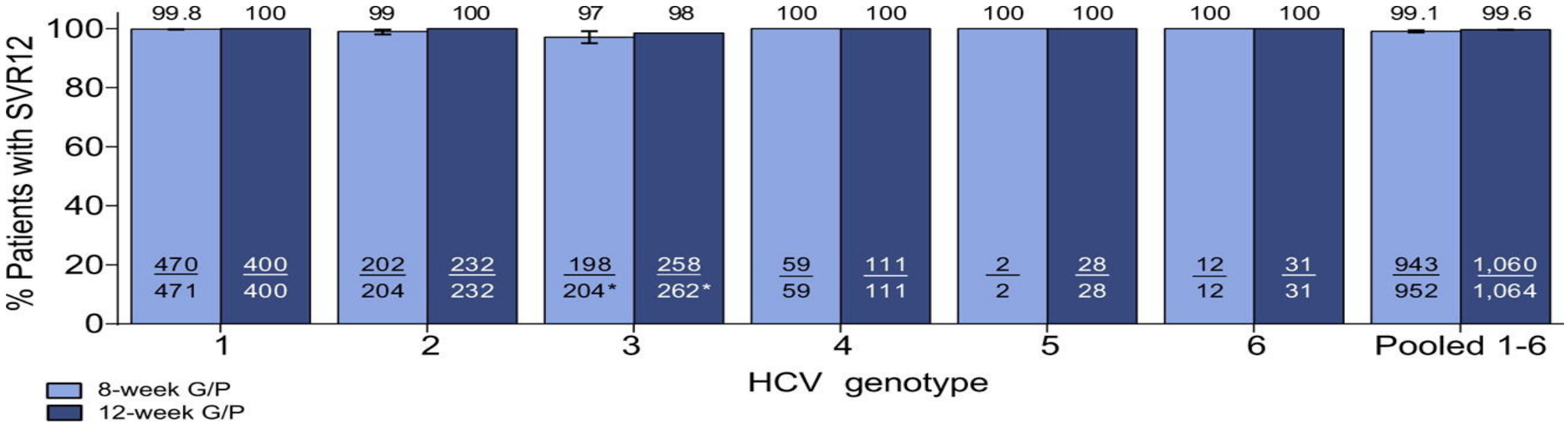
- Sofosbuvir + Velpatasvir (EPCLUSA)
- Glecaprevir + Pibrentasvir (MAVYRET)

Persons with HCV genotype 1, 2, 3, 4, 5, or 6 infection can be effectively treated with 1 tablet daily for 12 weeks Sofosbuvir/Velpatasvir



Feld JJ et al. NEJM 2016; Foster G et al NEJM 2016

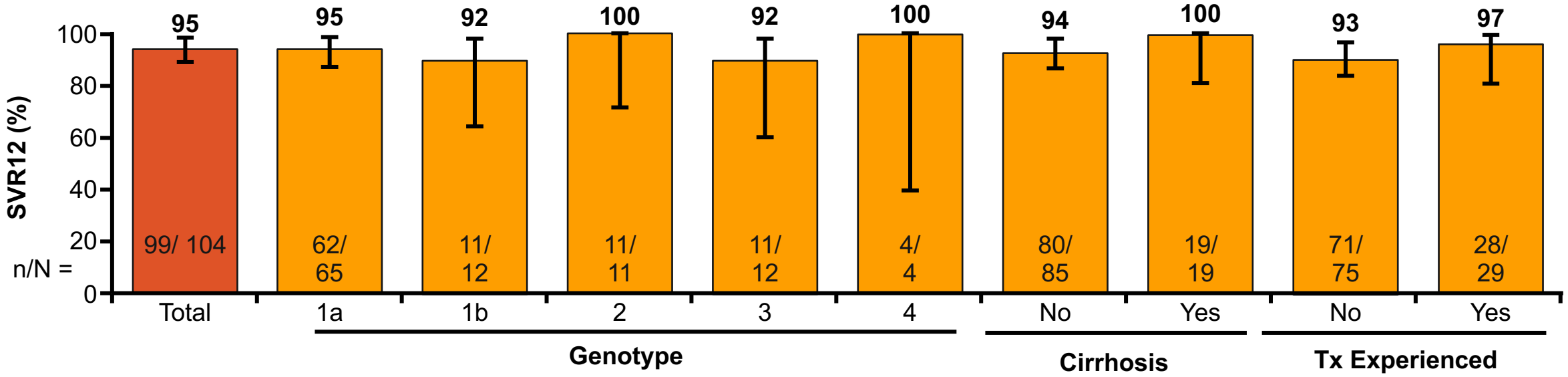
Persons with HCV genotype 1, 2, 3, 4, 5, or 6 infection can be effectively treated with 3 tablets daily for 8 weeks Glecaprevir/Pibrentasivir



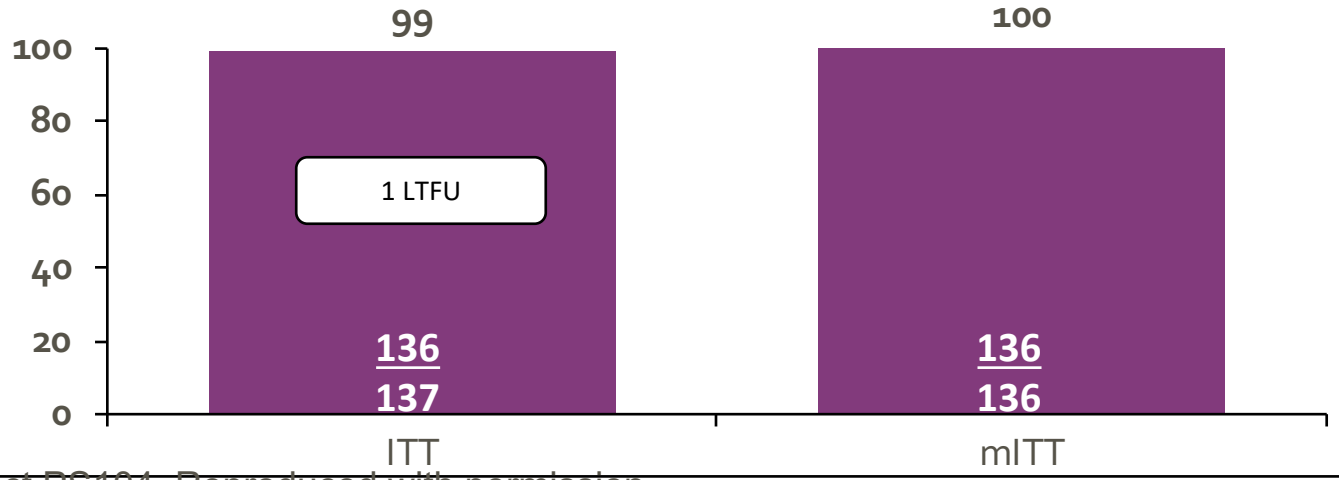
Puoti M et al. Journal of Hepatology (2018); Brown RS et al. Journal of Hepatology (2019)

HIV/HCV Coinfected Individuals Have Similar Cure Rates

Sofosbuvir/Velpatasvir x 12 weeks



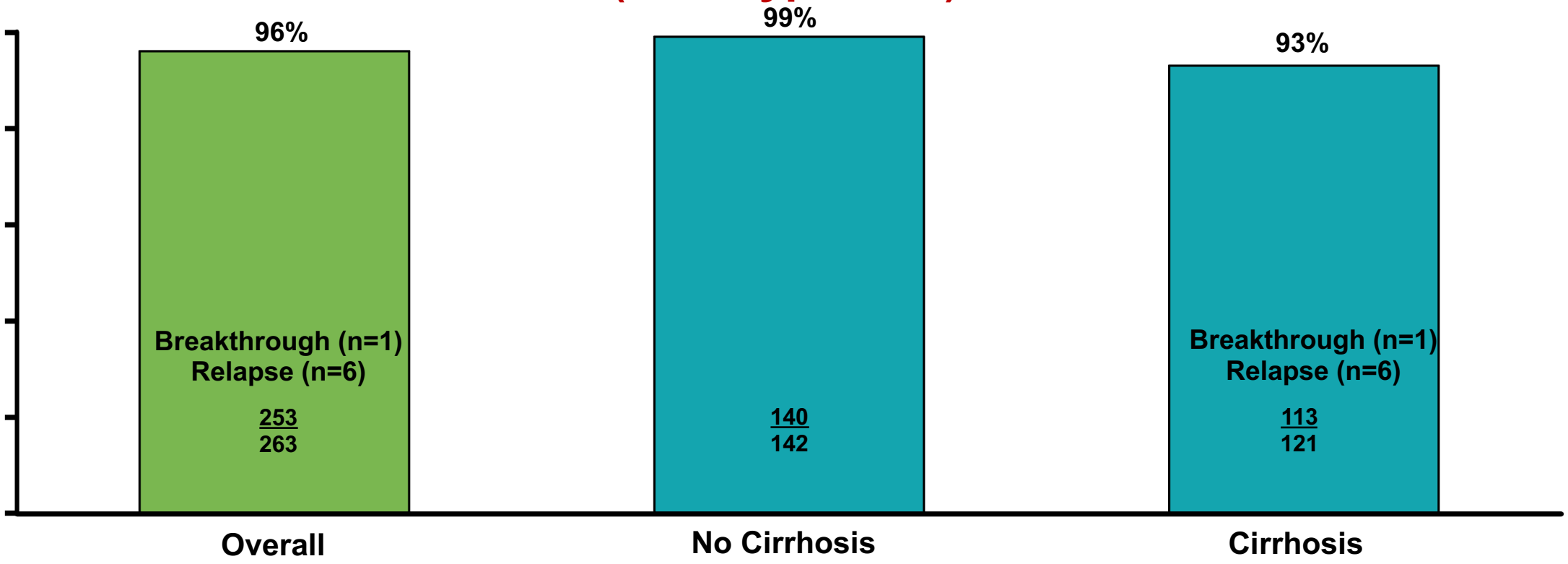
Glecaprevir/Pibrentasvir for 8 weeks



Wyles D, et al. EASL 2016. Abstract PS104. Reproduced with permission.

Overall Cure Rates in NS5A inhibitor – Experienced patients

Sofosbuvir/Velpatasvir/Voxilaprevir (Genotypes 1-6)



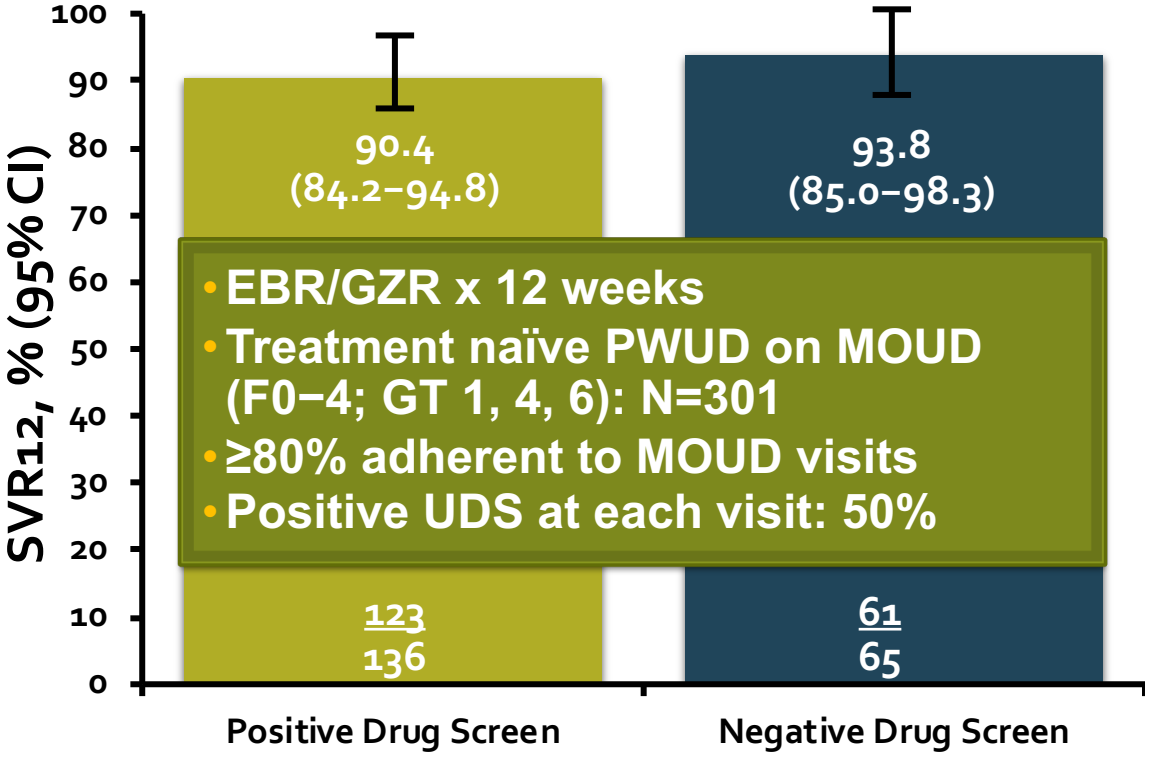
No placebo patients achieved an SVR12.
*P<0.001 for superiority versus pre-specified goal of 85% for sofosbuvir/velpatasvir/voxilaprevir.

Bourlière M, et al. Hepatology. 2016;64(suppl S1):102A. Abstract 194.

Evidence That Baseline Drug Use Has Little Impact on SVR12

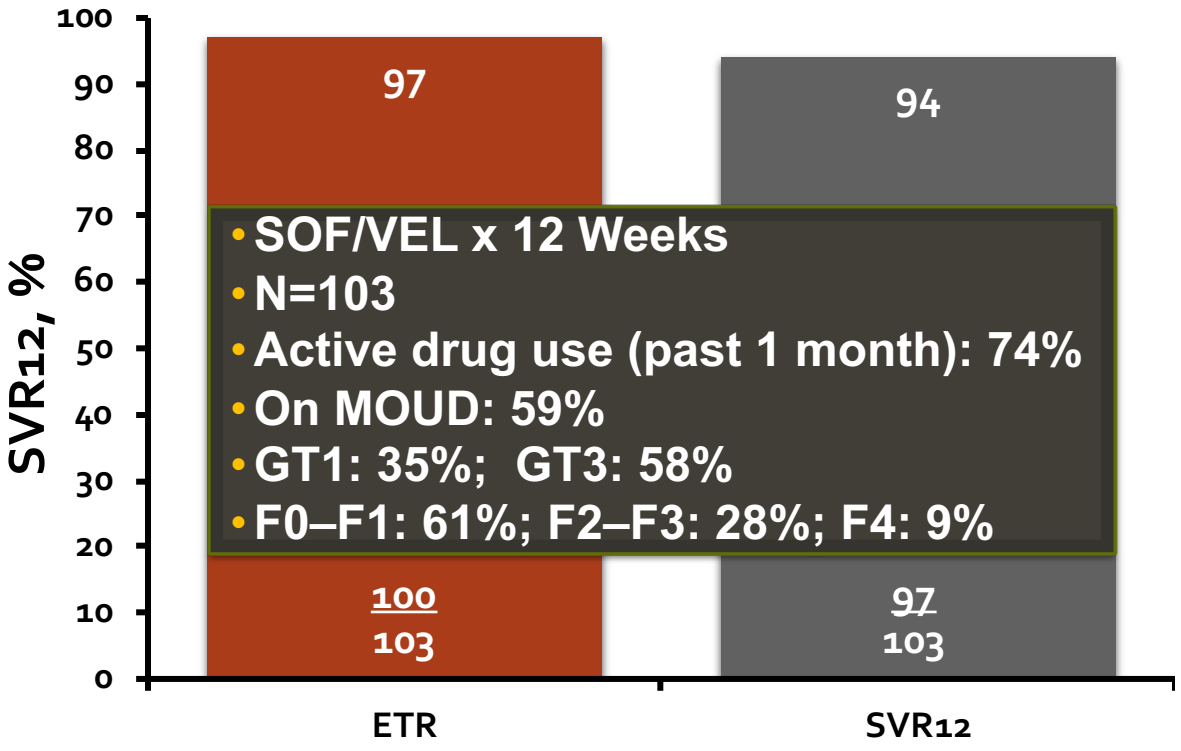
C-EDGE CO-STAR: Baseline Drug Use Has Little Impact on SVR12[1]

Subgroup Analysis



- EBR/GZR x 12 weeks
- Treatment naïve PWUD on MOUD (F0–4; GT 1, 4, 6): N=301
- ≥80% adherent to MOUD visits
- Positive UDS at each visit: 50%

SIMPLIFY: Virologic Response: ETR and SVR12[2]



- SOF/VEL x 12 Weeks
- N=103
- Active drug use (past 1 month): 74%
- On MOUD: 59%
- GT1: 35%; GT3: 58%
- F0–F1: 61%; F2–F3: 28%; F4: 9%

1. Dore GJ, et al. Ann Intern Med. 2016;165(9):625-634; 2. Grebely J, et al. Lancet Gastroenterol Hepatol. 2018;3(3):153-161.

DAA Therapy for HCV–Infected PWID

Results of a 2018 Systematic Review and Meta-Analysis

Patient Group	Studies, n (N=38)	Patients, n (N=3634)	Treatment Completion, % (95% CI)	SVR, % (CI)
Recent Injecting *OR* Noninjecting Drug Use	21	1408	97.5 (96.6–98.3)	87.9 (84.2–91.3)
Receiving MOUD	36	2987	94.7 (96.5–98.3)	90.7 (88.5–93.0)
Recent Injection Drug Use	8	670	96.9 (95.6–98.2)	87.4 (82.0–92.8)

Clinical trials may underestimate SVR in PWID.

Hajarizadeh B, et al. Lancet Gastroenterol Hepatol. 2018;3:754-767.

AASLD/IDSA

Who Should Be Treated?

Treatment is recommended **for all patients with chronic HCV infection, except those with short life expectancies** that cannot be remediated by treating HCV, by transplantation, or by other directed therapy.

Rating: Class I, Level A

AASLD. HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C. Last updated September 2017. http://www.hcvguidelines.org/evaluate/when-whom. Accessed August 2, 2018.

AASLD/IDSA: HCVGuidelines.org

NOW AVAILABLE

Download: Simplified HCV Treatment* for Treatment-Naive Patients

Without Cirrhosis - Click here to download the PDF, or read more.

With Compensated Cirrhosis - Click here to download the PDF, or read more.

https://www.hcvguidelines.org/sites/default/files/full-guidance-pdf/AASLD-IDSA_HCV-Guidance_TxN-Simplified-Treatment_a.pdf

Who is eligible for simplified treatment?

- Adults with chronic HCV infection (all genotypes) who do not have cirrhosis and who have not previously been treated
- Not eligible per guidelines (but not necessarily complicated)
  - Prior HCV therapy
  - Cirrhosis
  - End-stage renal disease
  - HIV infection
  - Chronic HBV infection (HBsAg+)
  - Current pregnancy
  - Prior liver transplantation

Pre-treatment Assessment (1)

- Calculate FIB-4 score (AST, ALT, platelet count and age)
  https://www.hepatitisc.uw.edu/page/clinical-calculators/fib-4
- Cirrhosis assessment: Patient is presumed to have cirrhosis if they have a FIB-4 score >3.25 or cirrhosis by any other test/assessment
- Medication reconciliation
- Drug-drug interaction assessment
  https://www.hep-druginteractions.org/
- Education: Educate the patient about proper administration of medications, adherence, and prevention of reinfection.

Pre-treatment Assessment (2)

- Within 6 months of initiating treatment:
  - Complete blood count (CBC)
  - Hepatic function panel (albumin, total and direct bilirubin, ALT, AST)
  - Calculated glomerular filtration rate (eGFR)
    - Note: Comprehensive metabolic panel, CMP includes all but direct bili
- Any time prior to starting antiviral therapy:
  - Quantitative HCV RNA (HCV viral load)
  - HIV antigen/antibody test
  - Hepatitis B surface antigen
- Before initiating antiviral therapy:
  - Serum pregnancy testing and counseling about pregnancy risks

On- and post-treatment monitoring

- Inform patients taking diabetes medication of the potential for symptomatic hypoglycemia.
  - Monitoring for hypoglycemia is recommended
- No laboratory monitoring is required for other patients.
- An in-person or telehealth/phone visit may be scheduled, if needed, for patient support, assessment of symptoms, and/or new medications.
- Assessment of quantitative HCV RNA and hepatic function panel are recommended 12 weeks or later following completion of therapy to confirm HCV RNA is undetectable (virologic cure) and transaminase normalization.

AASLD/IDSA HCV Guidance

Recommendations for Screening and Treatment of HCV Infection in People Who Inject Drugs (PWID)	
RECOMMENDED	RATING
Annual HCV testing is recommended for PWID with no prior testing, or past negative testing and subsequent injection drug use. Depending on the level of risk, more frequent testing may be indicated.	IIa, C
Substance use disorder treatment programs and needle/syringe exchange programs should offer routine, opt-out HCV-antibody testing with reflexive or immediate confirmatory HCV-RNA testing and linkage to care for those who are infected.	IIa, C
PWID should be counseled about measures to reduce the risk of HCV transmission to others.	I, C
PWID should be offered linkage to harm reduction services including intranasal naloxone, needle/syringe service programs, medications for opioid use disorder, and other substance use disorder treatment programs.	I, B
Active or recent drug use or a concern for reinfection is not a contraindication to HCV treatment.	IIa, B

http://www.hcvguidelines.org. Accessed Oct 13, 2021.

AASLD/IDSA HCV Guidance

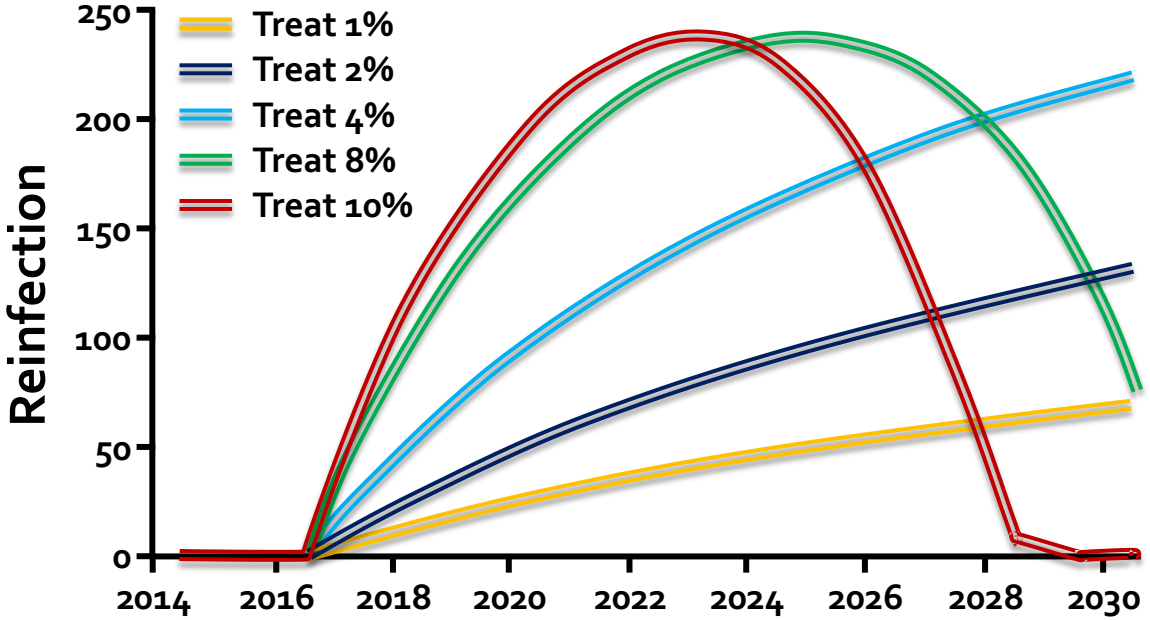
Recommendations for Medical Management and Monitoring of Acute HCV Infection	
RECOMMENDED	RATING
After the initial diagnosis of acute HCV with viremia (defined as quantifiable RNA), HCV treatment should be initiated without awaiting spontaneous resolution.	I, B
Counseling is recommended for patients with acute HCV infection to avoid hepatotoxic insults, including hepatotoxic drugs (eg, acetaminophen) and alcohol consumption, and to reduce the risk of HCV transmission to others.	I, C
Referral to an addiction medicine specialist is recommended for patients with acute HCV infection related to substance use.	I, B

http://www.hcvguidelines.org. Accessed Oct 13, 2021.

HCV Treatment as Prevention

Harm Reduction Is an Essential Component

The More PWID Treated, the Faster We Get to HCV Elimination[1]



BUT we must concomitantly scale up harm reduction measures

- Medication-assisted treatment
- Syringe services programs
- Increased intensity of HCV management; eg, directly observed therapy
- Patient education and counseling

AND

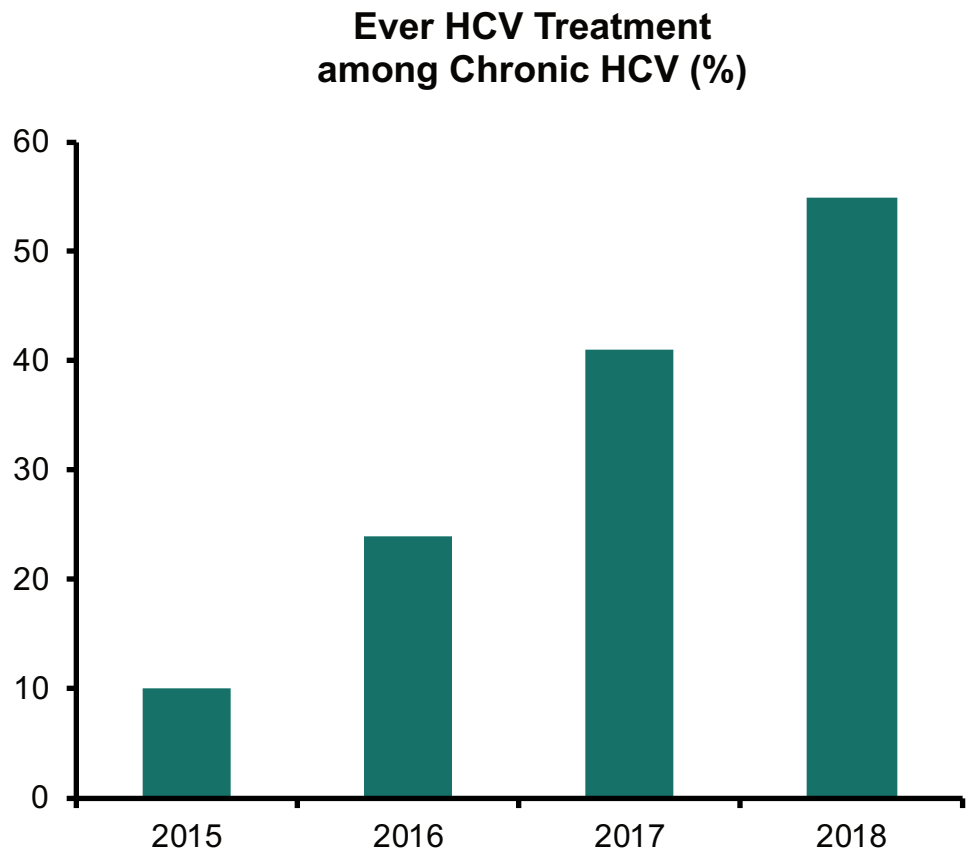
– Increase HCV treater workforce

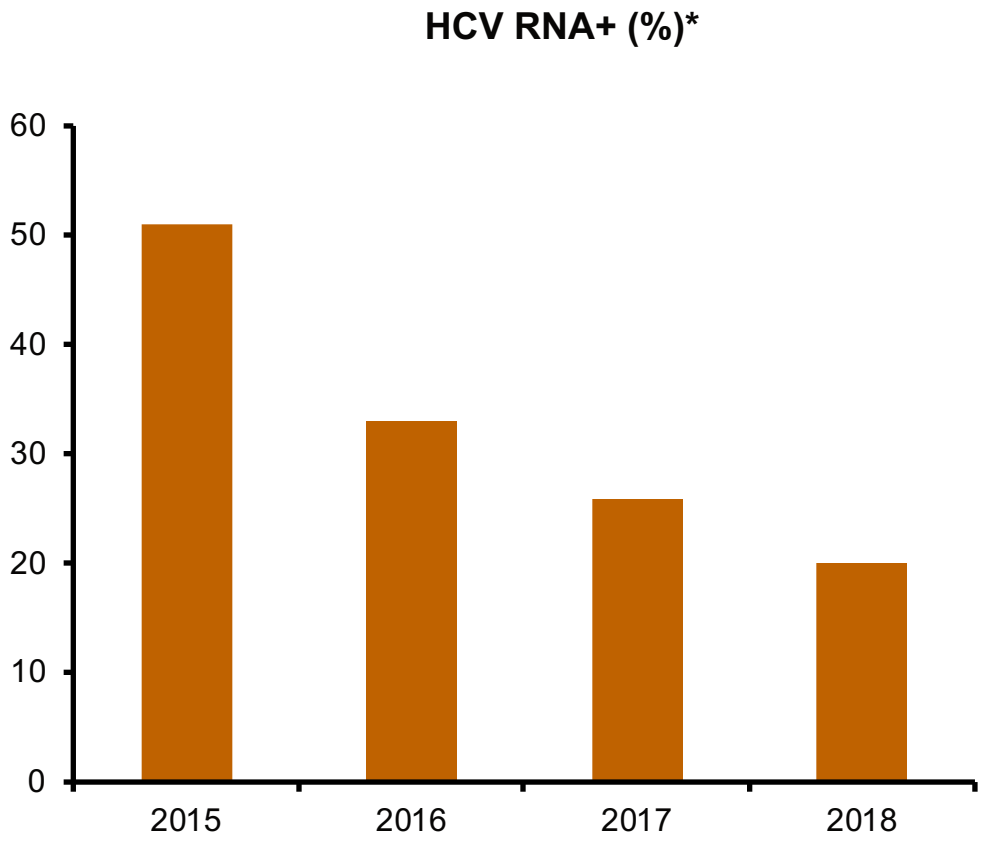
Harm-reduction services and patient education are essential to HCV elimination.

1. Grebely J, et al. *Nat Rev Gastroenterol Hepatol*. 2017;14(11):641-651;

Treatment as Prevention in Australia

Australian Annual Needle Syringe Program Survey (n = 2,000-2,500)

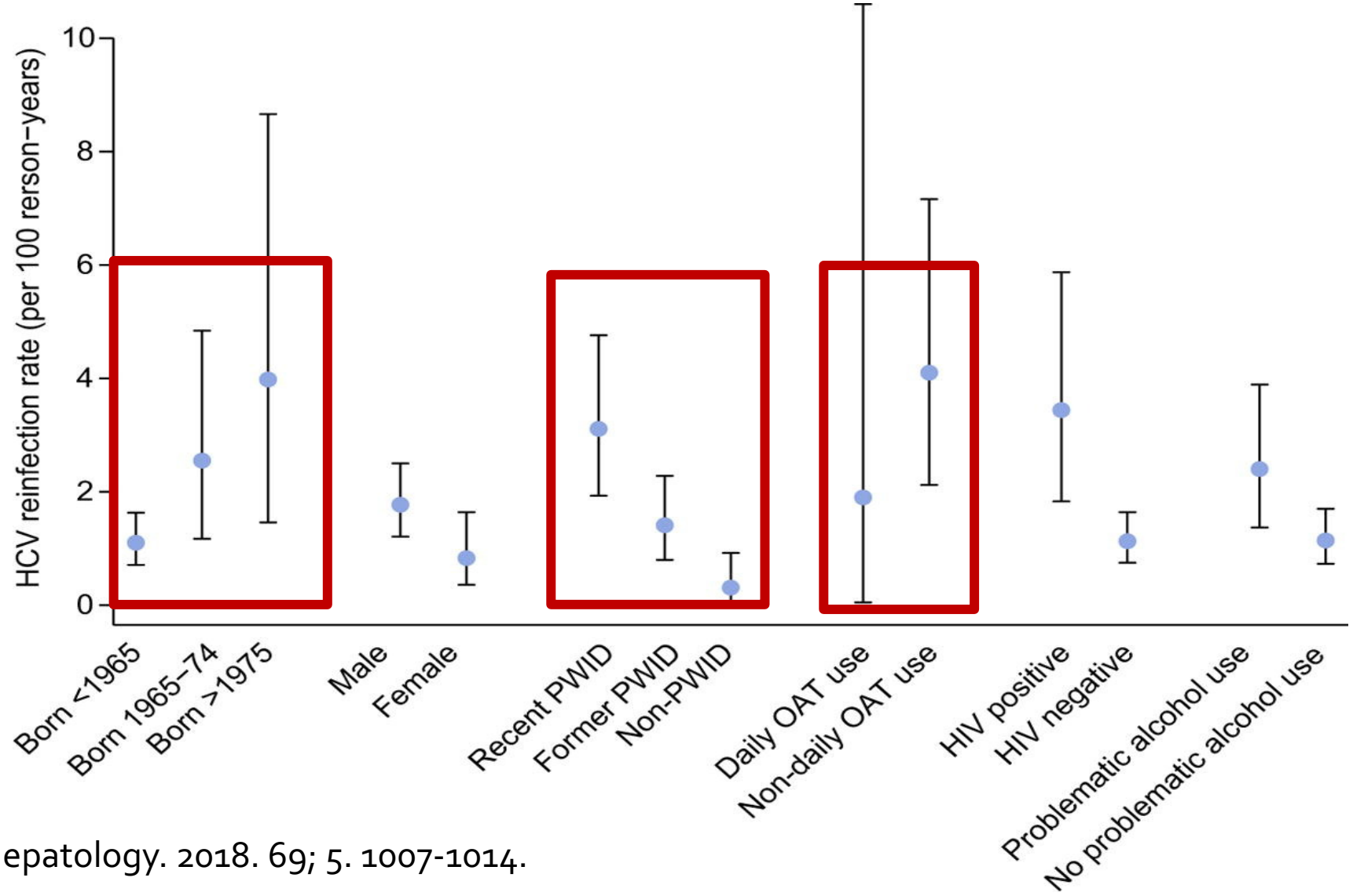




Slide courtesy of Greg Dore: Iversen J, et al. Kirby 2019

*Untreated + treated (VF) + treated (reinfection).

Reinfection



Rossi, C. J of Hepatology. 2018. 69; 5. 1007-1014.

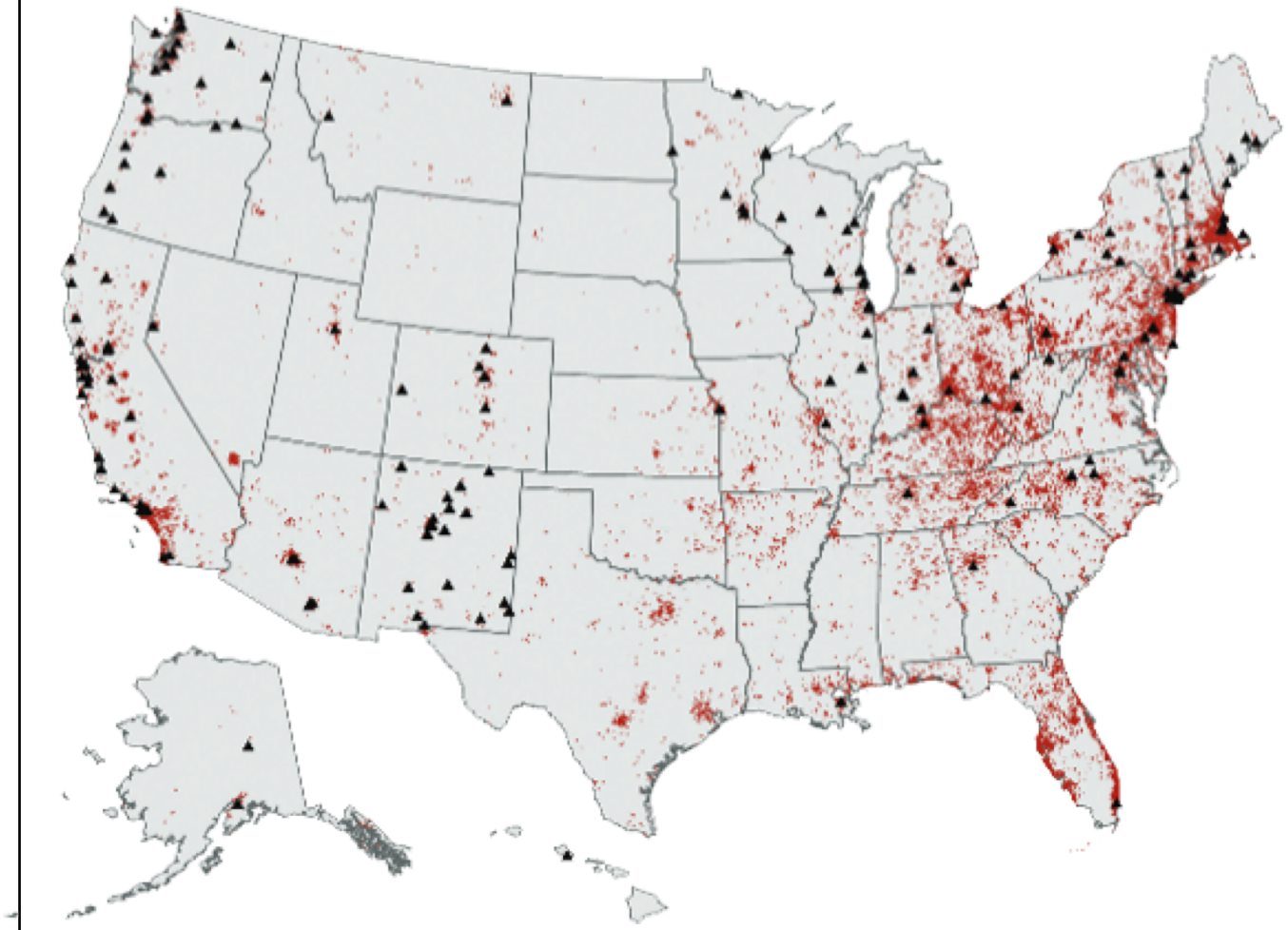
A Look at Harm Reduction

Harm reduction is any positive change, as defined by the person at risk for harm. It is meeting people where they are and providing the tools and information they need to keep themselves and those around them healthy[1]

- Harm reduction . . . [2,3]
  - Provides nonjudgmental care
  - Fights discrimination
  - Does not require abstinence
  - Is not against abstinence
  - Does not attempt to minimize or ignore the real and tragic harm and danger associated with licit and illicit drug use

1. Adapted from the Chicago Recovery Alliance: Dan Bigg, Director and Cofounder
2. National Harm Reduction Coalition. http://www.harmreduction.org. Accessed August 22, 2021
3. Harm Reduction International. https://www.hri.global/what-is-harm-reduction. Accessed August 22, 2021

Syringe Service Program Coverage Across the US



- 29,382 young individuals with HCV
  - 15–29 years of age
  - 80% live >10 miles from an SSP
  - Median distance: 37 miles

▲ **SSP**

Each red dot = 1 HCV case

Canary L, et al. Clin Infect Dis. 2017;65(3):514-517.

Syringe Service Programs

Needles and Syringes 101

New

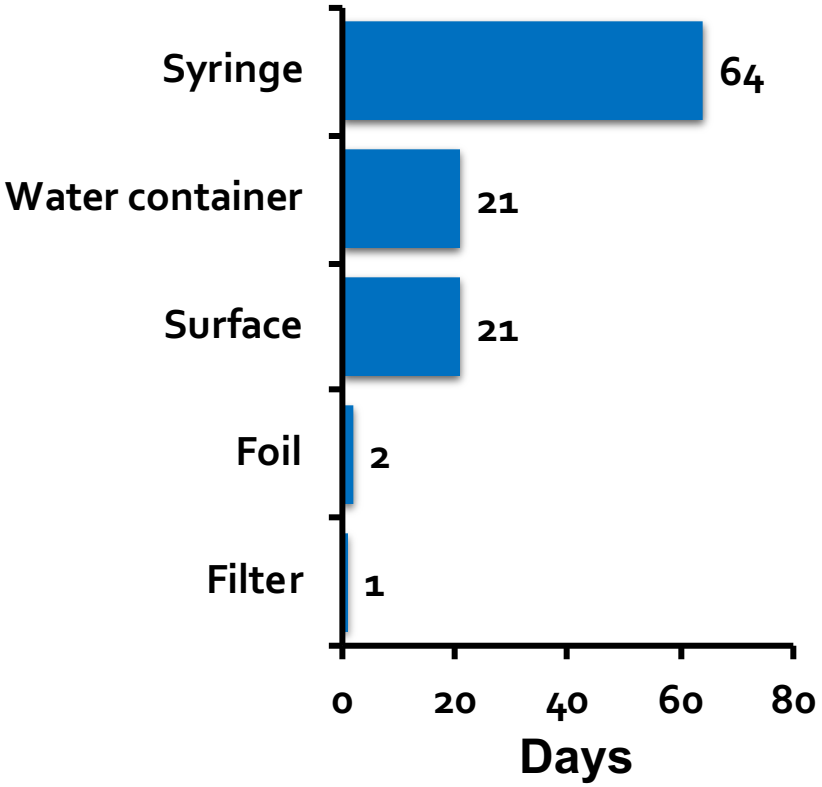
Used One Time

Used Six Times

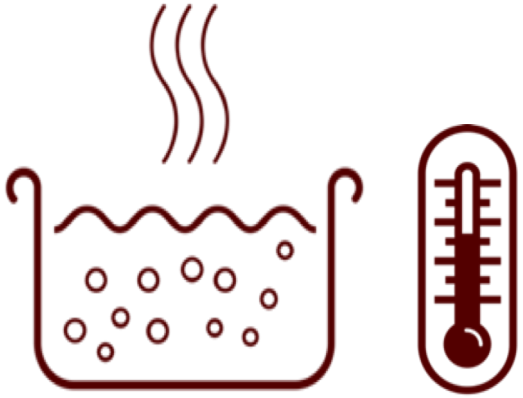
Image source: Imgur. https://imgur.com/Rh7RY. Accessed August 22, 2021.

HCV Survivability and Transmissibility

Survival on Inanimate Objects[1–5]

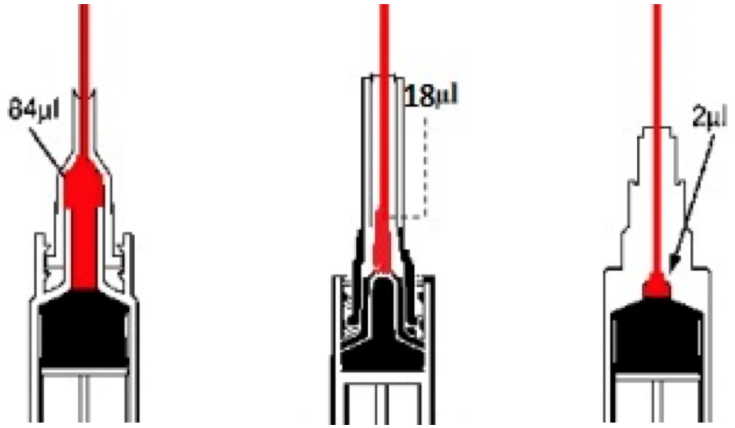


Survival at High Temperature[1–5]



An HCV-contaminated solution needs to be heated for 85–90 seconds at 149°–158° F for the virus to be at undetectable levels.

Transmission via Contact With Contaminated Needle/Syringe[6]



HIGH Dead-Space Syringe (DSS) | **DETACHABLE Needle With Low DSS** | **FIXED Needle With Low DSS**

Use and sharing of high DSSs is associated with increased risk of HCV infection.

Composite slide courtesy of Gregory Huhn, MD.

1. Paintsil E, et al. *J Infect Dis*. 2010;202(7):984-990; 2. Doerrbecker J, et al. J Infect Dis. 2011;204(12):1830-1838; 3. Thibault V, et al. J Infect Dis. 2011;204(12):1839-1842; 4. Doerrbecker J, et al. J Infect Dis. 2013;207(2):281-287; 5. Paintsil E, et al. J Infect Dis. 2014; 209(8):1205-1211; 6. Image source: http://qdsyringe.com/what-are-low-dead-space-syringes-2/ (previous website).

MOUD Has Multiple Benefits

- Methadone,[a] buprenorphine,[b] or single-tablet buprenorphine/naloxone[c]
  - Safe and effective in suppressing illicit opioid use
- Retention in MOUD
  - Substantial reductions in the risk for *overdose* mortality
  - Substantial reductions in the risk for *all-cause* mortality
- Combined MOUD and SSP can reduce HCV incidence by up to 80%
- MOUD alone can reduce HCV transmission 53% to 61%

[a]Methadone, a full opioid agonist; [b]buprenorphine, a partial opioid agonist; [c]buprenorphine/naloxone, a partial opioid agonist in combination with an opioid antagonist in a 4:1 ratio.

Sordo L, et al. BMJ. 2017;357:j1550.
Degenhardt L,et al. Lancet Glob Health. 2017;5(12):e1192-e1207
Hagan H J Infectious Diseases 2011; 204:74-84
Nolan S. Addiction 2014; 109: 2053-2059
Tsui J. JAMA Int Med. 2014; 174: 1974-1981

MOUD Uptake and Impact on HCV Cure

MOUD Uptake

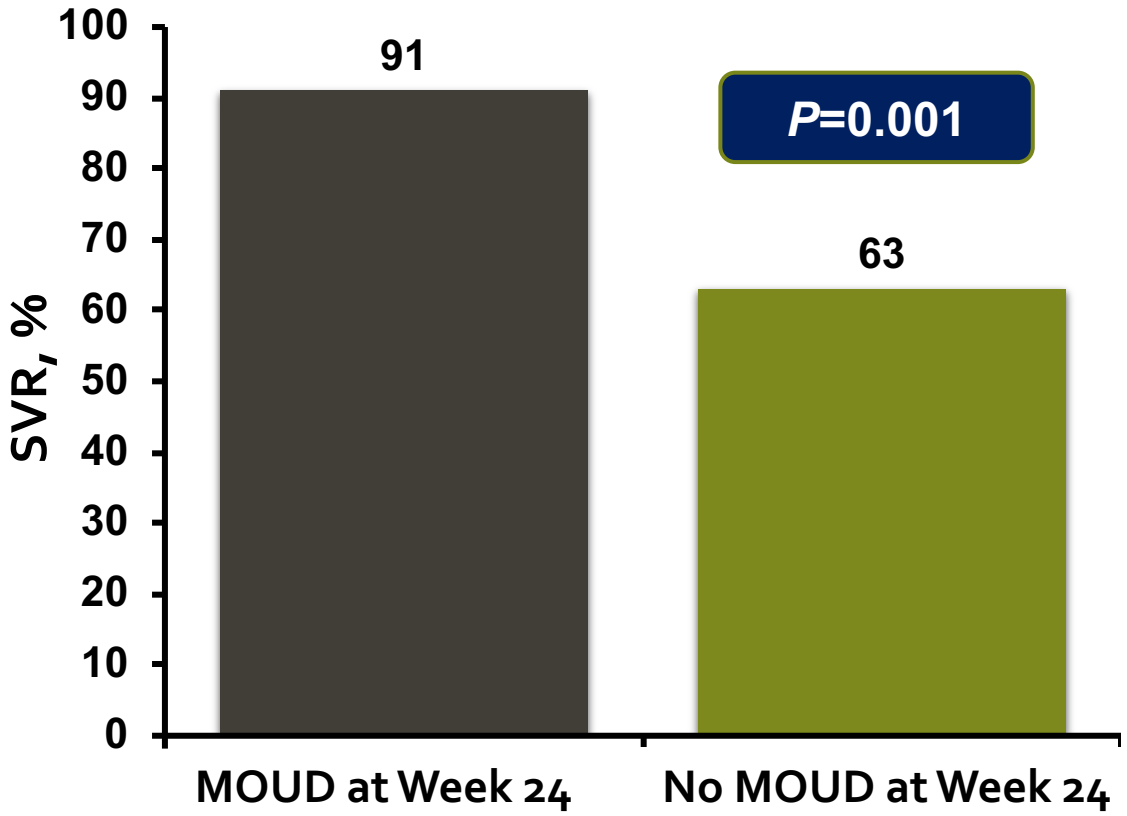
100 PWID with OUD started on HCV treatment

67 (67%) patients not on MOUD at baseline

53/67 (79%) started on MOUD

37/53 (70%) retained on MOUD at week 24

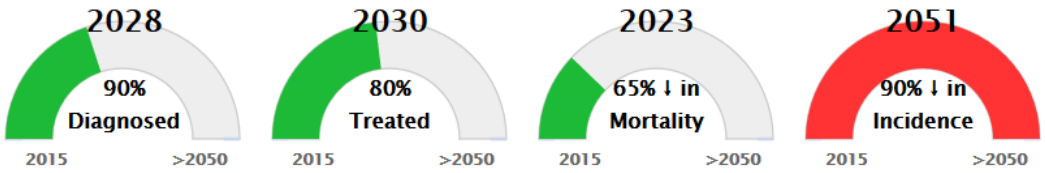
Impact of MOUD on SVR at Week 24



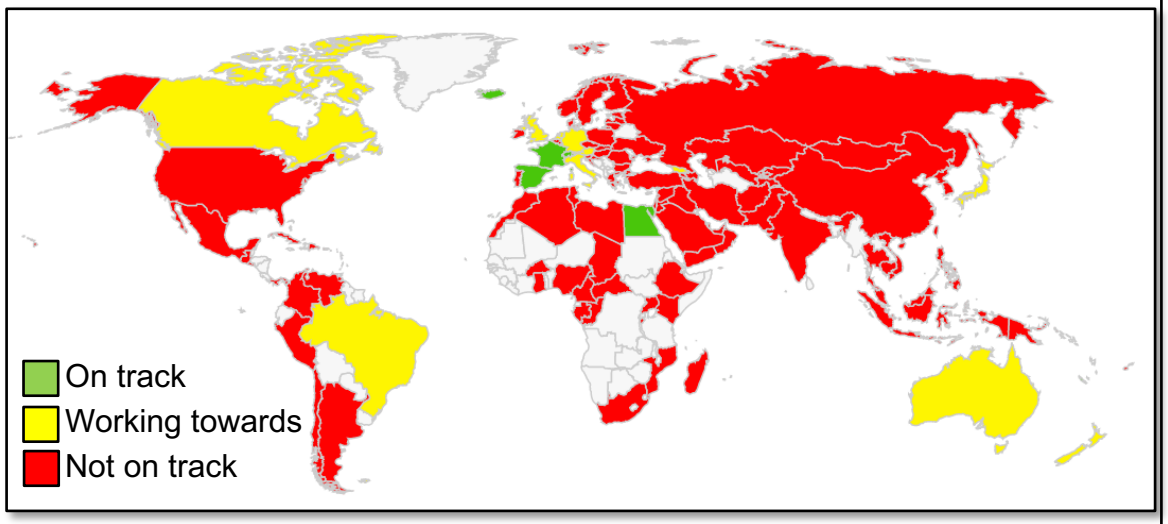
Rosenthal ES, et al. Clin Infect Dis. 2020;71(7):1715-1722.

WHO HCV Elimination 2030 Targets

- 2030 targets
  - 90% diagnosed
  - 80% treated
  - 65% reduced mortality
  - 90% reduction in HCV incidence
- HCV infection in United States: 2.9 million
- United States is not on track to meet all targets by 2030 (extrapolated from 2019 data)



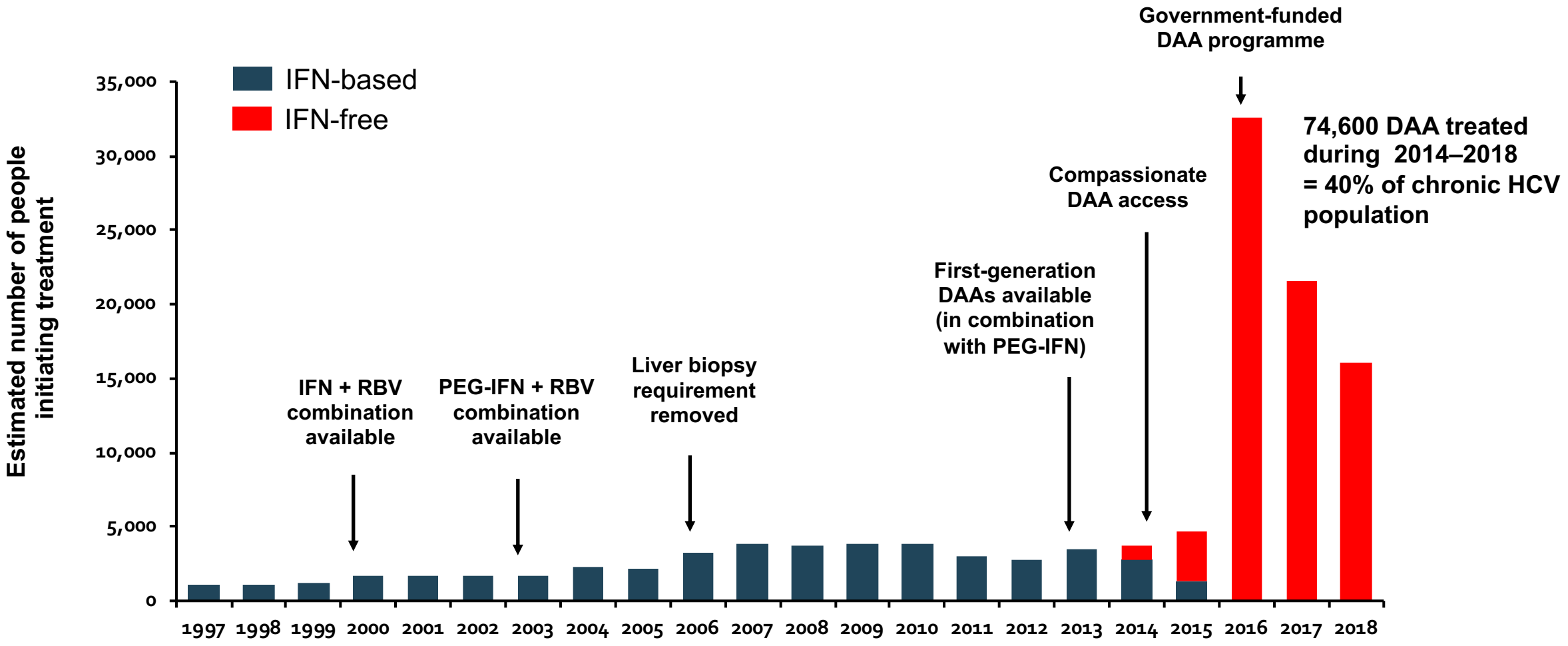
Global Progress Towards Meeting WHO HCV Elimination Targets 2019 Status



Countries on track to met targets: Egypt, France, Ireland, Spain, Switzerland.

The Polaris Observatory HCV Collaborators. 1/2020. https://cdafound.org/dashboard/polaris/dashboard.html.

HCV treatment uptake in Australia: 1997–2018



Adapted from Dore GJ, Hajarizadeh B. Infect Dis Clin N Am 2018;32:269–79

Slide courtesy of Greg Dore

Australia's DAA program: the "Netflix" model

The NEW ENGLAND JOURNAL of MEDICINE

Universal Medicine Access through Lump-Sum Remuneration — Australia's Approach to Hepatitis C

Suerie Moon, M.P.A., Ph.D., and Elise Erickson, M.A.

February 14, 2019

The New York Times

Treat Medicines Like Netflix Treats Shows

Australia seems to have found a way to entice Big Pharma into making essential new medicines affordable. Why can't the United States?

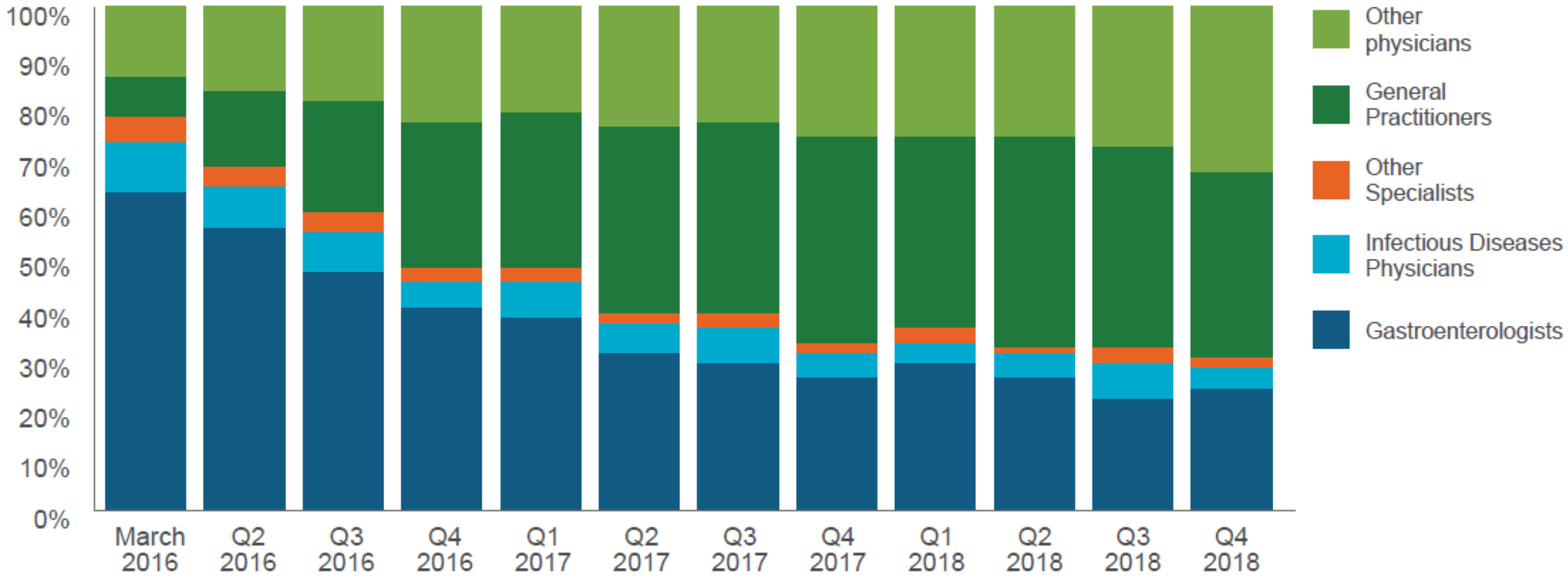
By Tina Rosenberg

Ms. Rosenberg is a co-founder of the Solutions Journalism Network, which supports rigorous reporting about responses to social problems.

March 5, 2019

Slide courtesy of Greg Dore

Increasing proportion of non-specialist treatment



Monitoring hepatitis C treatment uptake in Australia, Issue 10, June 2019. https://kirby.unsw.edu.au/report/monitoring-hepatitis-c-treatment-uptake-australia-issue-10-june-2019

Slide courtesy of Greg Dore

System based barrier: Health Care Silos

Solution: Integrated Health Care

Image courtesy of : http://www.gruenehomesteadinn.com/silo2009.htm

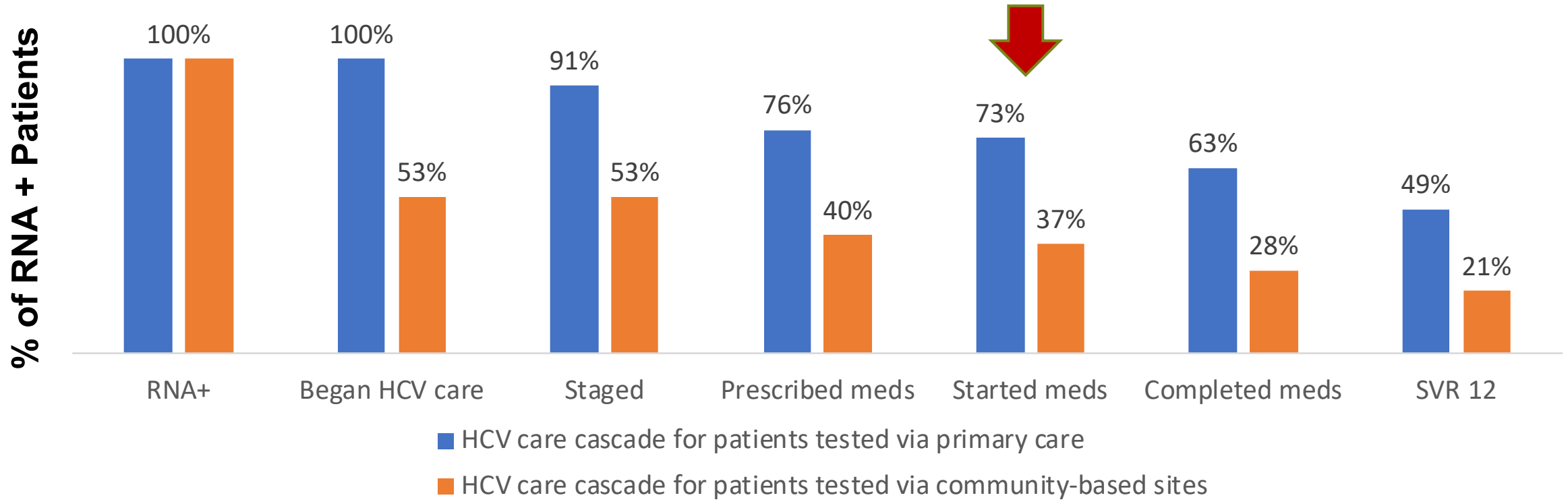
Philadelphia FIGHT: The C a Difference Testing and Linkage to Care Program

CURE
The Jonathan Lax Treatment Center
The John Bell Health Center
Broad Street Ministries
The Youth Health Empowerment Project

COMMUNITY BASED TESTING
Drug Treatment Programs
Homeless shelters
Medication Assisted Treatment

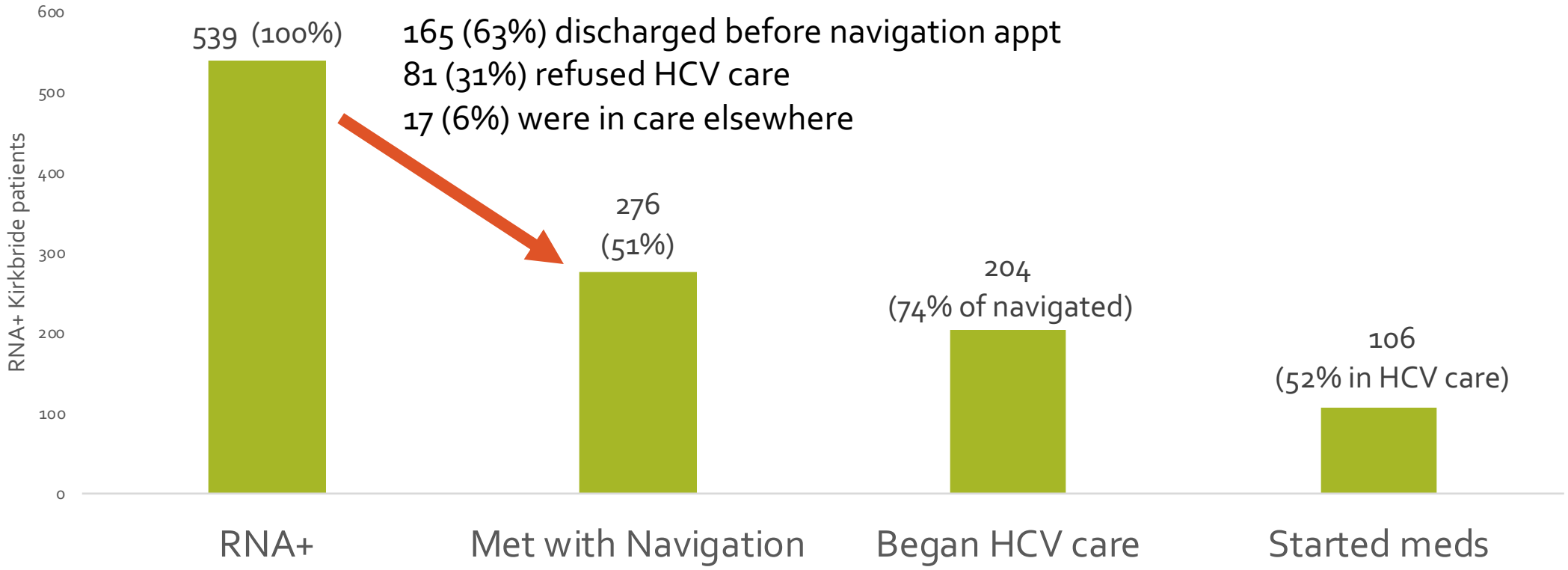
IN PARTNERSHIP
Philadelphia Department of Prisons

"C a Difference": *Clinic- vs Community-Based Outcomes, 9/2016-6/2021*



- **Clinic-based (JBHC)**
  - HCV-Ab prevalence ~35%; ~75% chronically infected
- **Community-based recovery sites**
  - HCV-Ab prevalence 6%–60%, depending on site population; ~75% chronically infected

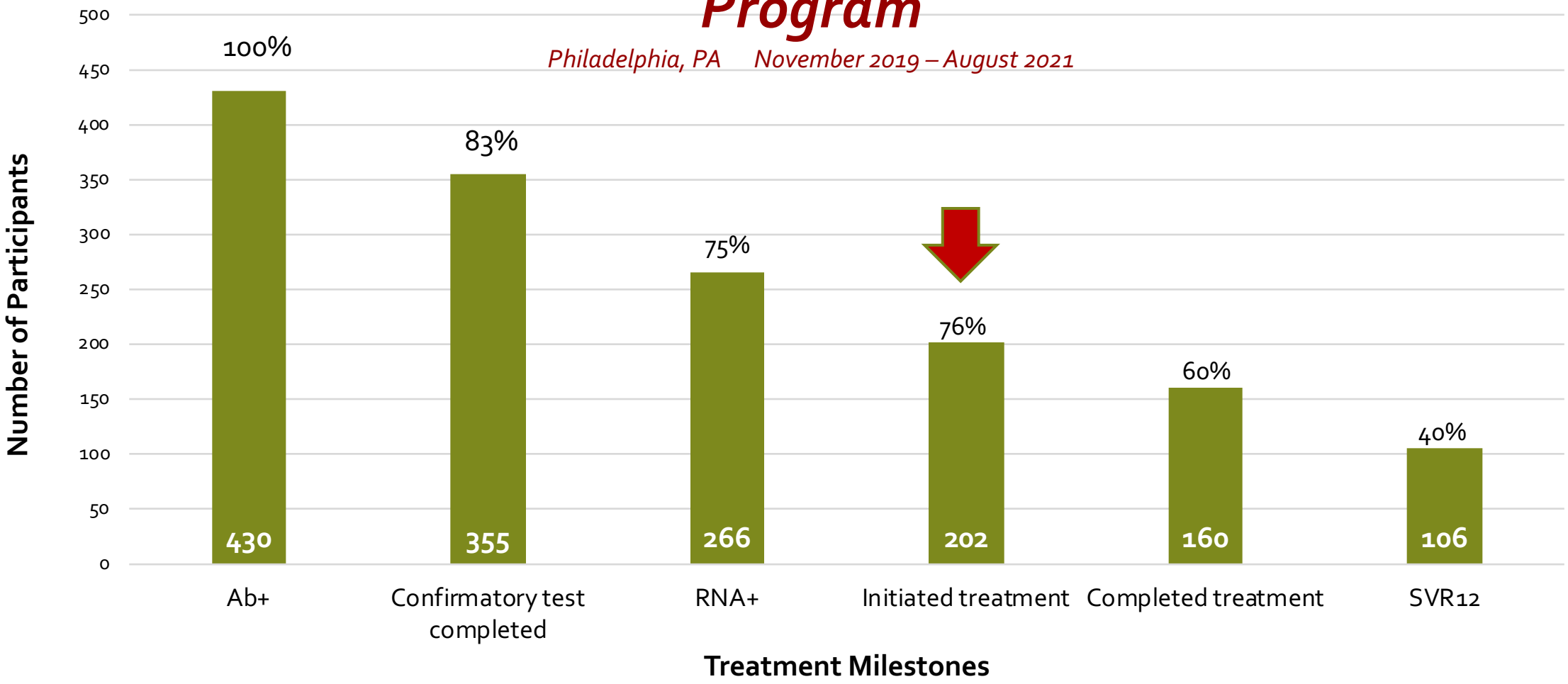
C a Difference: *Telehealth Model HCV Care Cascade at Kirkbride: 1.1.2021-4.30.22*



"C Change": HCV care integrated in MOUD program

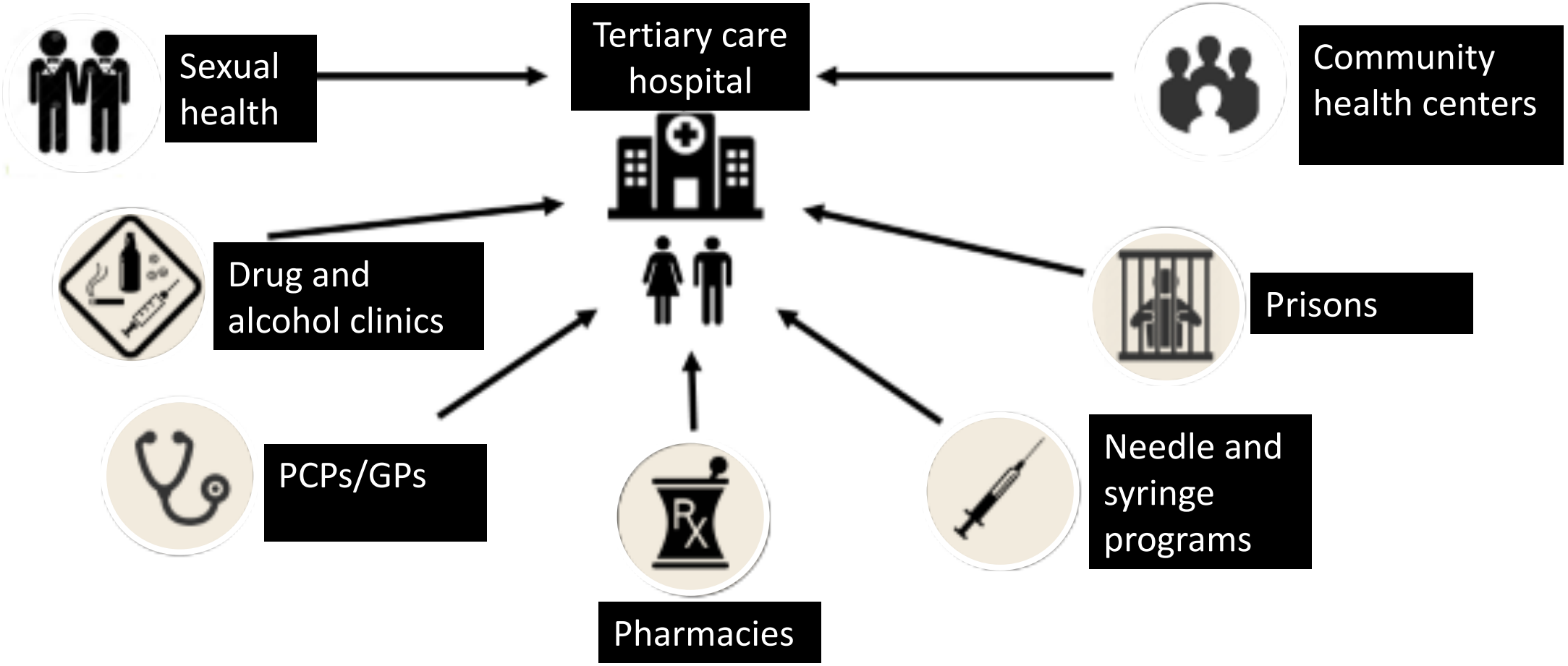
Snapshot of HCV Care Embedded in a Methadone Program

Philadelphia, PA November 2019 – August 2021



Slide courtesy of Stacey Trooskin, MD, PhD.

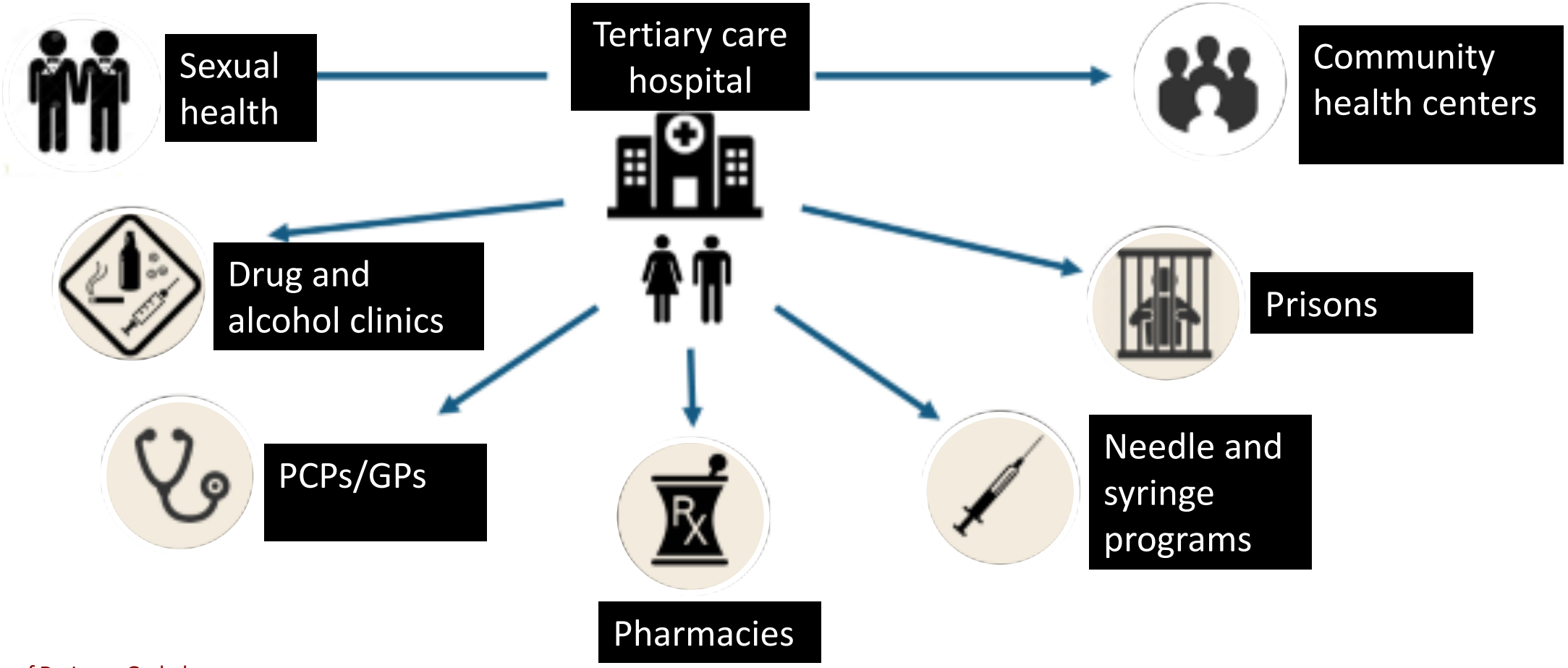
Traditional Referral Models of HCV Testing and Treatment



Slide courtesy of Dr. Jason Grebely.

Redefining Models of HCV Testing and Treatment

- Need to bring HCV care to the community where patients access services



Slide courtesy of Dr. Jason Grebely.

Current Challenges in HCV Care: Wholesale Acquisition Costs

• SIM/SOF x 12 weeks	$150,360
• LED/ SOF x 8 weeks	~~$63,000~~
• LED/ SOF x 12 weeks	~~$94,500~~
• DAC/ SOF x 12 weeks	$148,000
• PrOD x 12 weeks	$83,319
• VEL/ SOF x 12 weeks	~~$74,760~~
• ELB/ GRA x 12 weeks	~~$54,600~~
• **GLE/PIB x 8 weeks**	**$26,400**
• GLE/PIB x 12 weeks	$39,600

9/24/18
$24,000

7/19/18
$21,840

- WAC does not include negotiated discounts and rebates

Arlene Price, Janssen (Personal Communication)
http://www.hepatitisc.uw.edu/page/treatment/drugs/simeprevir-drug

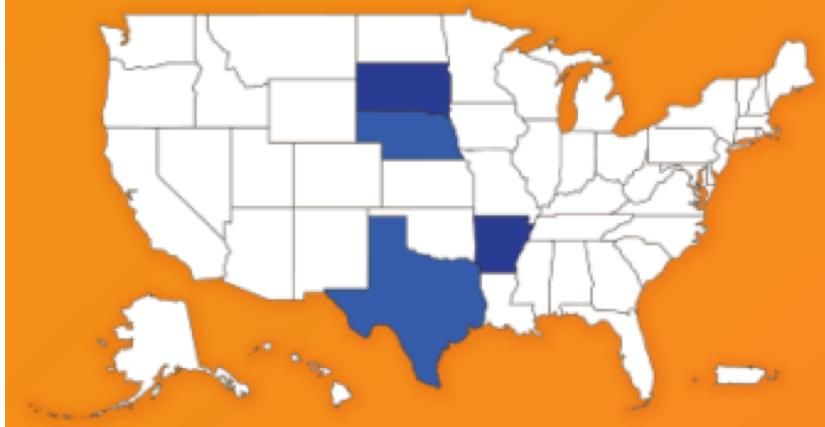
Hagan LM et al. Hepatology 60, 37-45, July 2014.
www.fairpricingcoalition.org

Hepatitis C treatment restrictions have **lessened** over the last decade since the **introduction of direct-acting antivirals** (DAAs). Fewer treatment restrictions allow for **increased access to Hepatitis C treatment** for patients in Medicaid programs.

Current Hepatitis C Treatment Restrictions for Medicaid, 2021

32 states

have eliminated or reduced fibrosis restrictions, 4 remain.

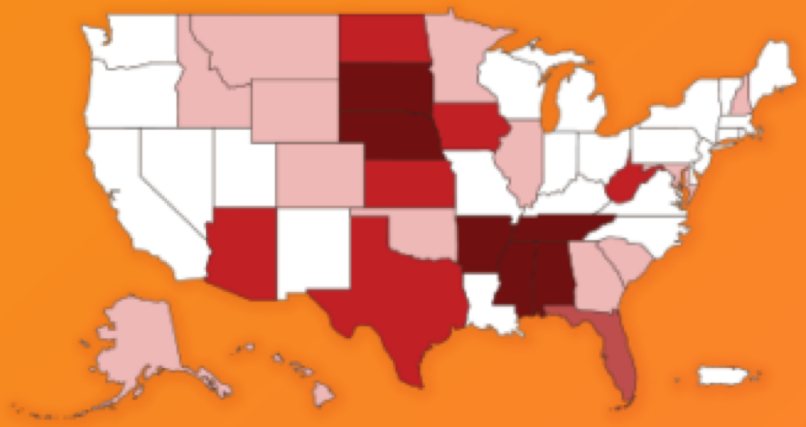


F0/No Restrictions

F1 | F2 | F3 | F4

21 states

have loosened sobriety restrictions, 28 remain.

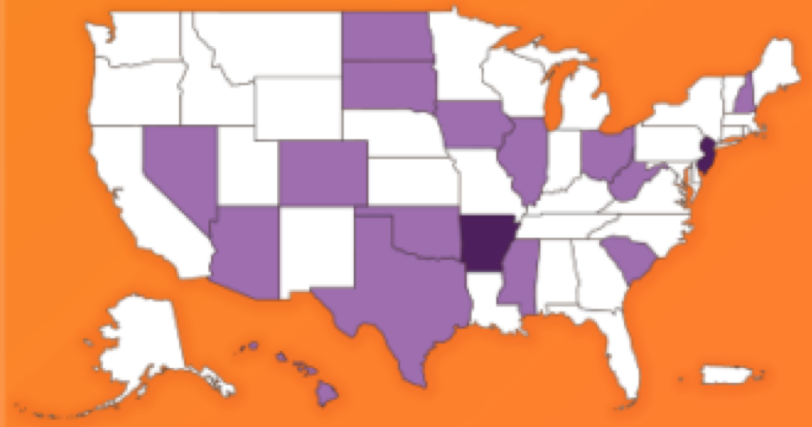


No Restrictions | Screening and Counseling for Substance Use

Abstain (1 mo.) | Abstain (3 mos.) | Abstain (6 mos.)

25 states

have scaled back prescriber restrictions, 18 remain.



No Restrictions | By or in Consultation with a Specialist

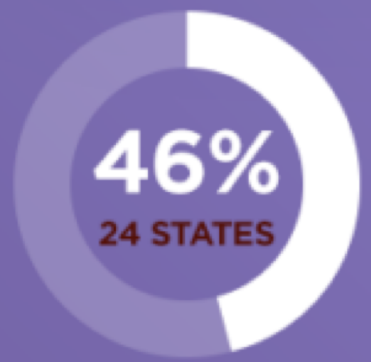
Specialist Must Prescribe

*Statuses are as of April 2021. *For purposes of analysis, District of Columbia and Puerto Rico are treated like states.

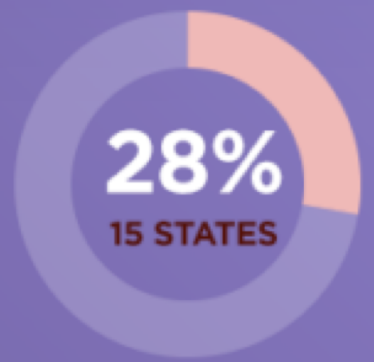
HepVu.org SOURCE: CENTER FOR HEALTH LAW AND POLICY INNOVATION & NATIONAL VIRAL HEPATITIS ROUNDTABLE

CHLPI NVHR HepVu

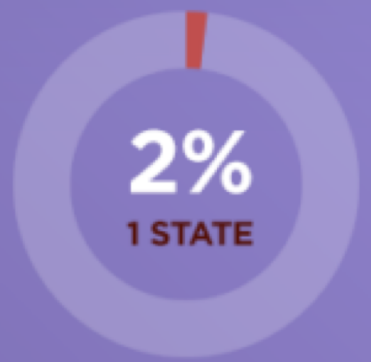
Some sobriety restrictions require individuals to **abstain** from using alcohol and/or drugs for a **specified timeframe prior** to starting Hepatitis C treatment.



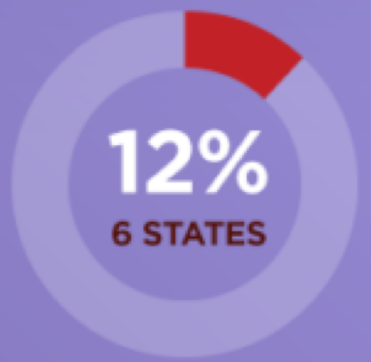
of states have **no sobriety restrictions**



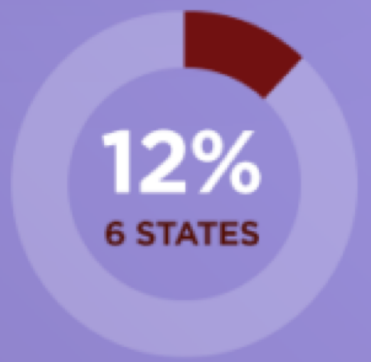
of states require **screening and counseling for substance use** prior to treatment



of states require **1 month of sobriety** prior to treatment



of states require **3 months of sobriety** prior to treatment



of states require **6 months of sobriety** prior to treatment

**Statuses are as of April 2021. *For purposes of analysis, District of Columbia and Puerto Rico are treated like states.*

A Call to Action

- Elimination is possible!
- AASLD/IDSA HCV Treatment Guidance supports the testing and treatment of acute and chronic HCV in PWID
- DAA treatment for HCV in PWID is effective
- Reinfection will happen until we treat a critical mass and scale up harm reduction
- Treatment is Prevention: treatment benefits the patient and the community
- Build integrated models of care
- Use the available resources: NVHR, Medicaid office, political leaders
- Work to eliminate stigma, discrimination, and violence
- Act locally (but think globally) → ***HCV microelimination***