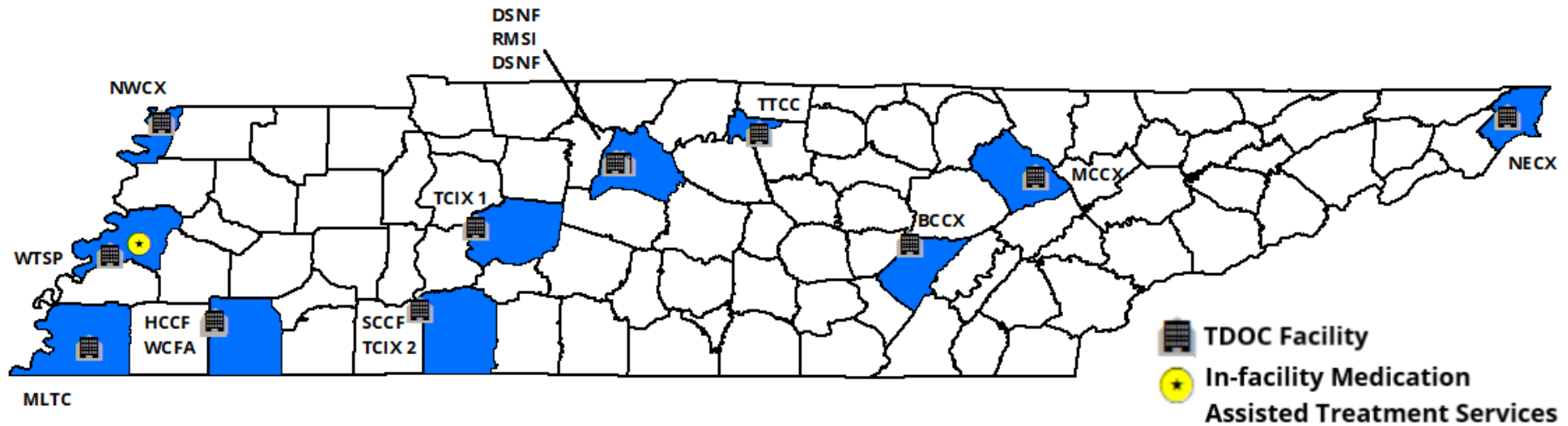




# **Hepatitis C Virus Care Continuum for the Tennessee Department of Correction Utilizing Laboratory Reports, 2016–2020**

Lindsey Sizemore, Viral Hepatitis Program Director

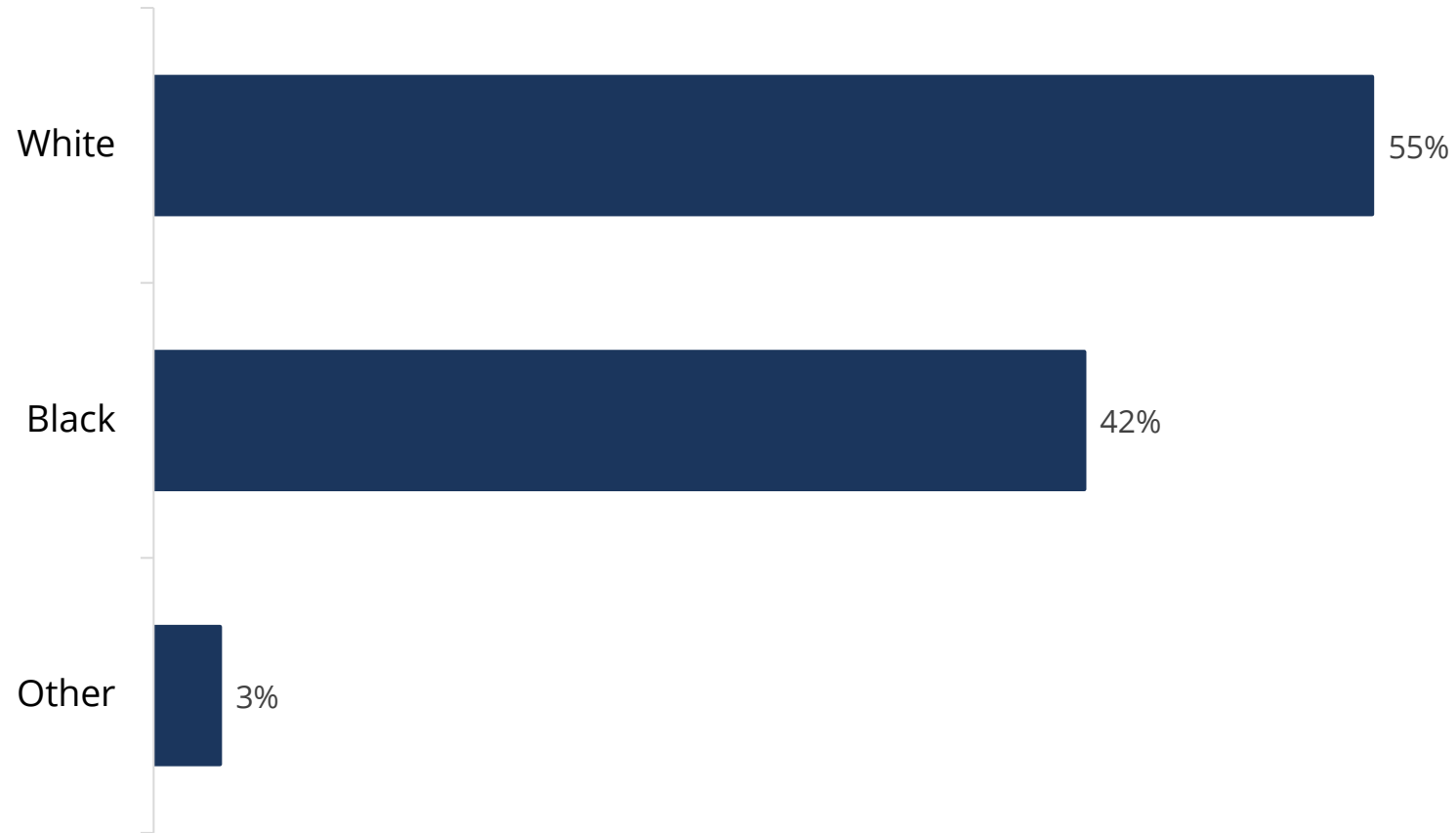
# Tennessee Department of Correction (TDOC)



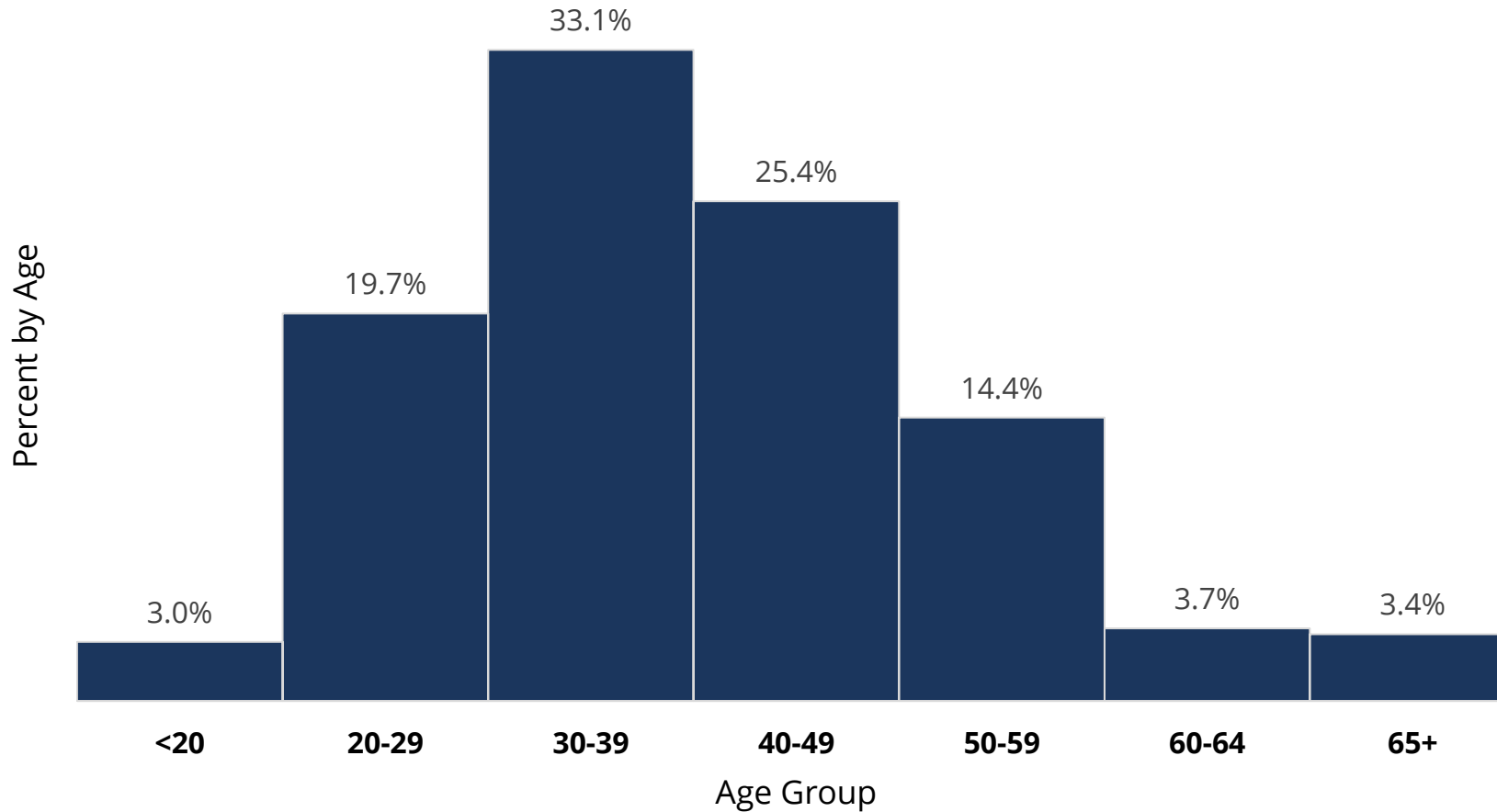
**14 Prisons**

**Total Inmate Population as of 2022: 19,026**

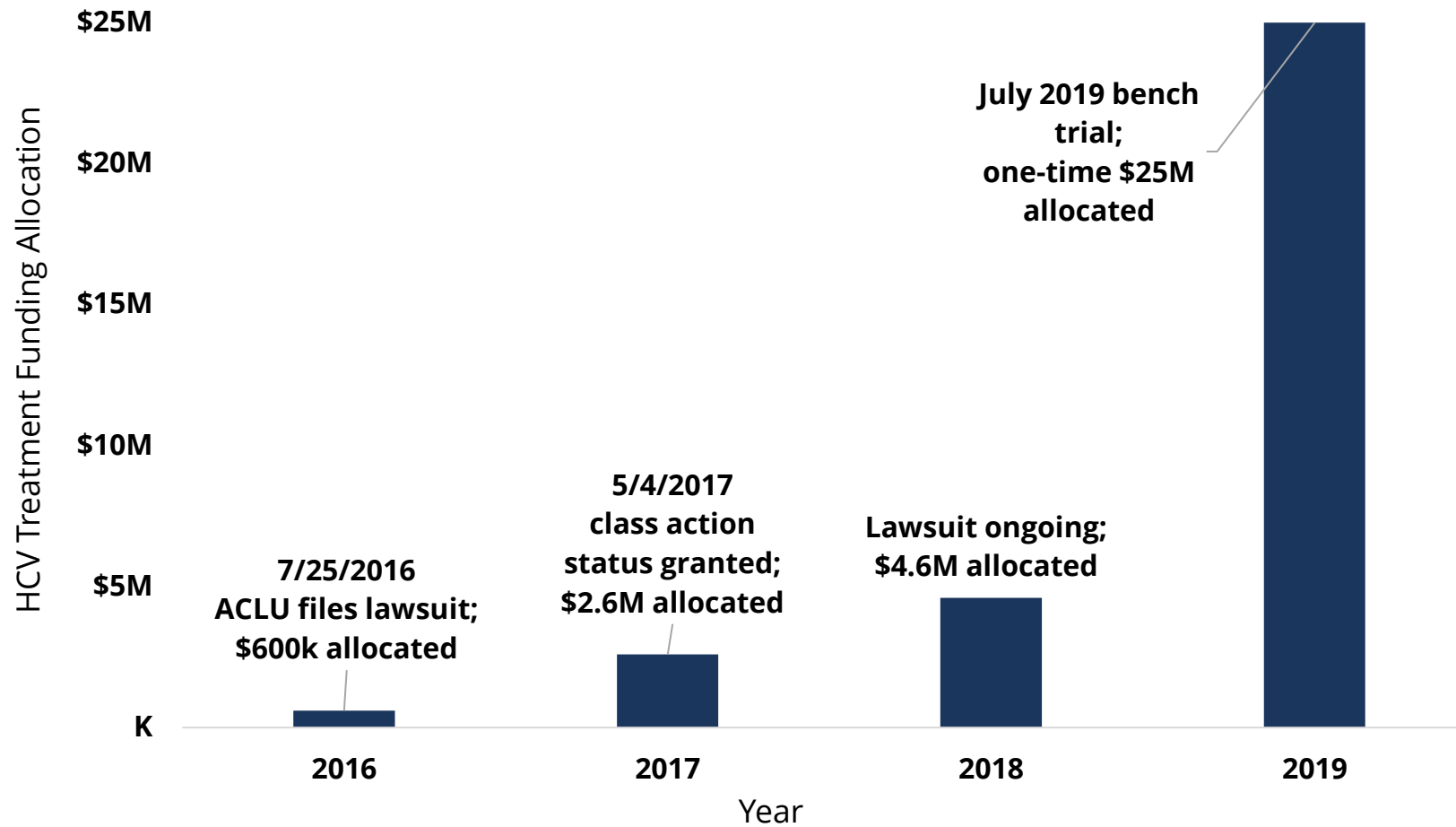
# TDOC Population Overview by Race



# TDOC Population Overview by Age



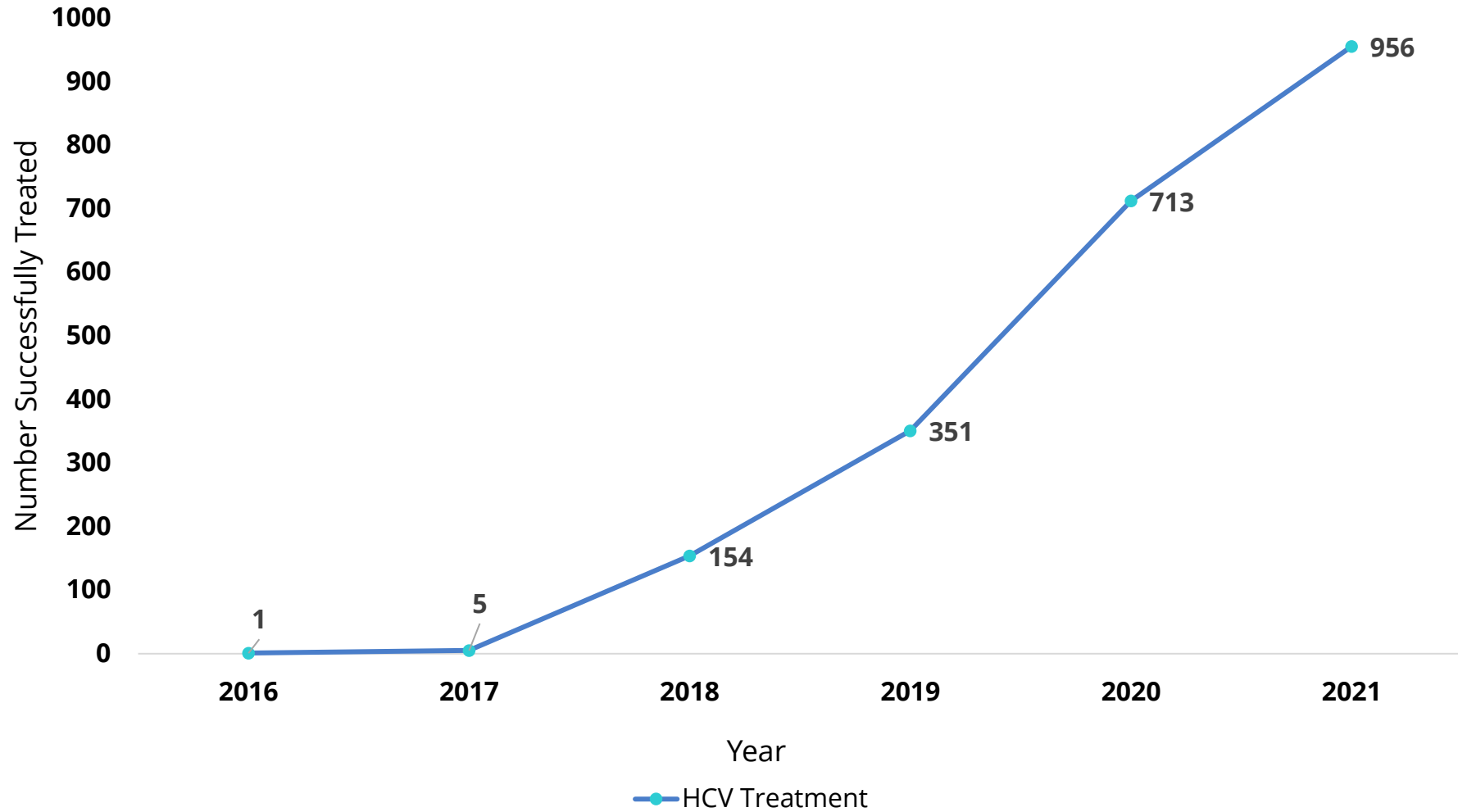
# TDOC HCV Annual Treatment Funding



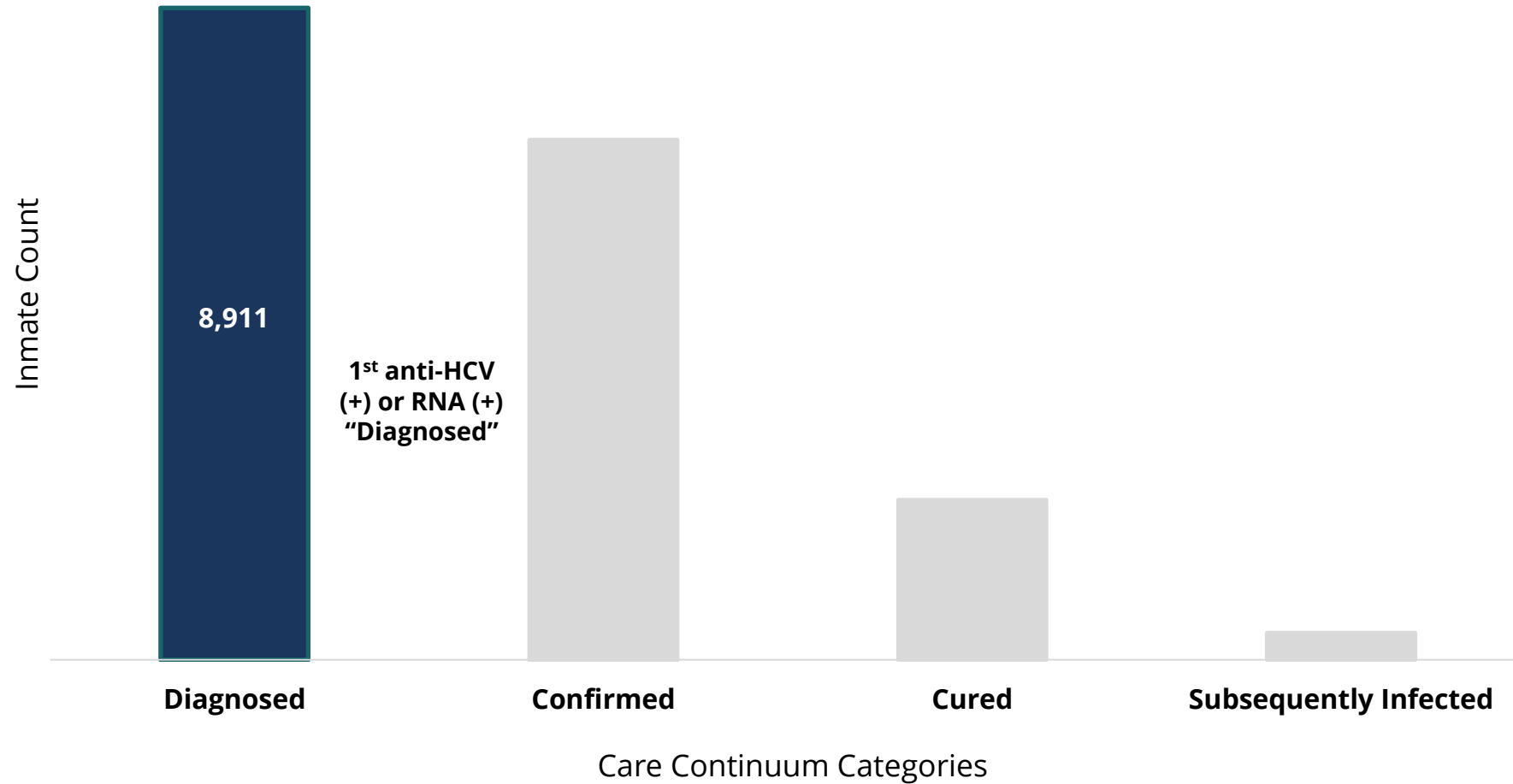
# TDOC HCV Testing & Treatment

- Individuals are tested for HCV upon initial intake, upon transfer to a new facility, during treatment, and at personal request
- HCV RNA positive individuals receive a liver function blood panel and Fibroscan screening to assess liver damage
- Individuals with F3 liver fibrosis are prioritized for treatment
  - If funding is available F1 & F2 candidates are considered
- Current HCV treatment pricing obtained through 340B status

# TDOC HCV Testing & Treatment by Year

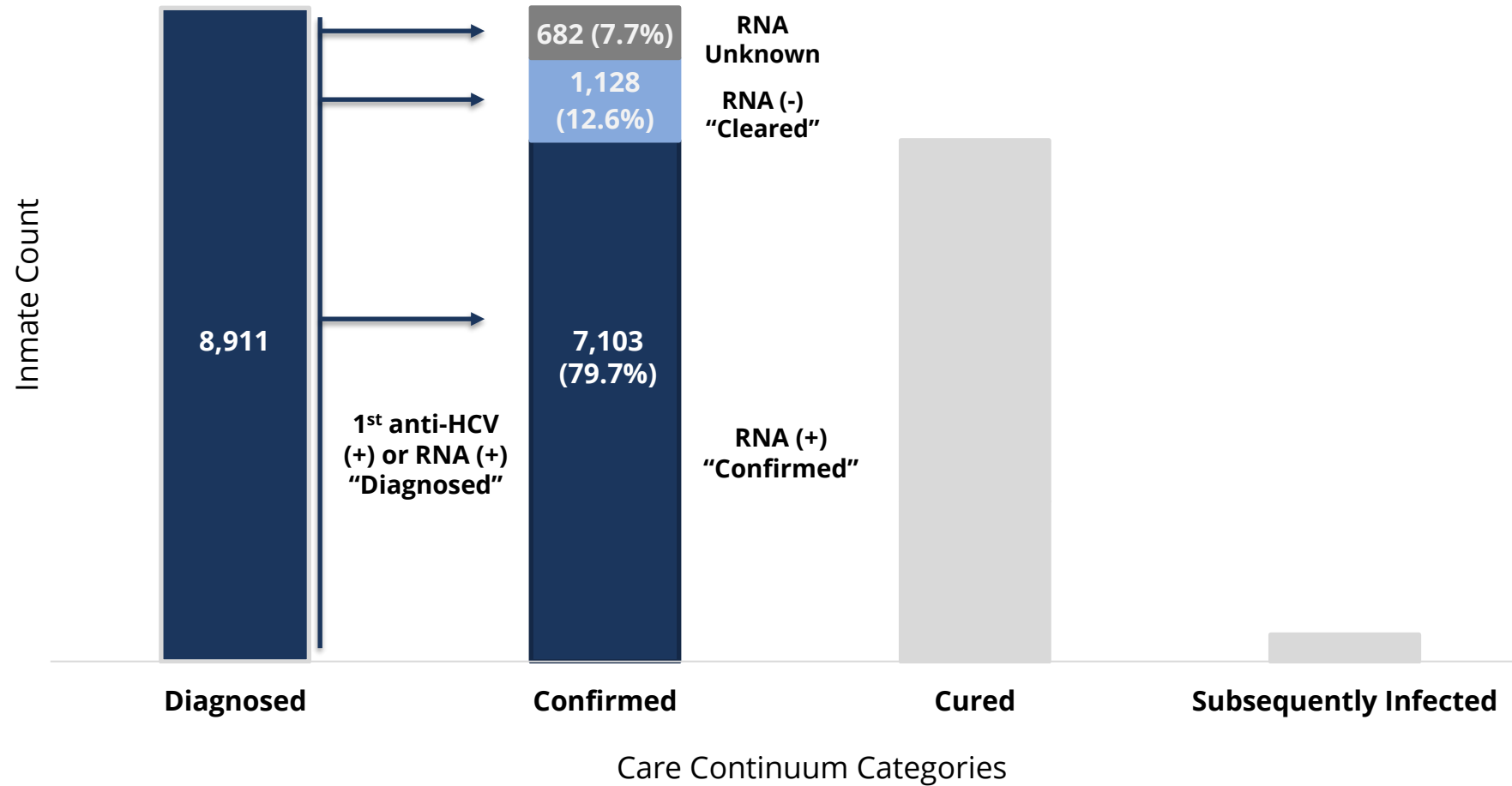


# TDOC HCV Care Continuum

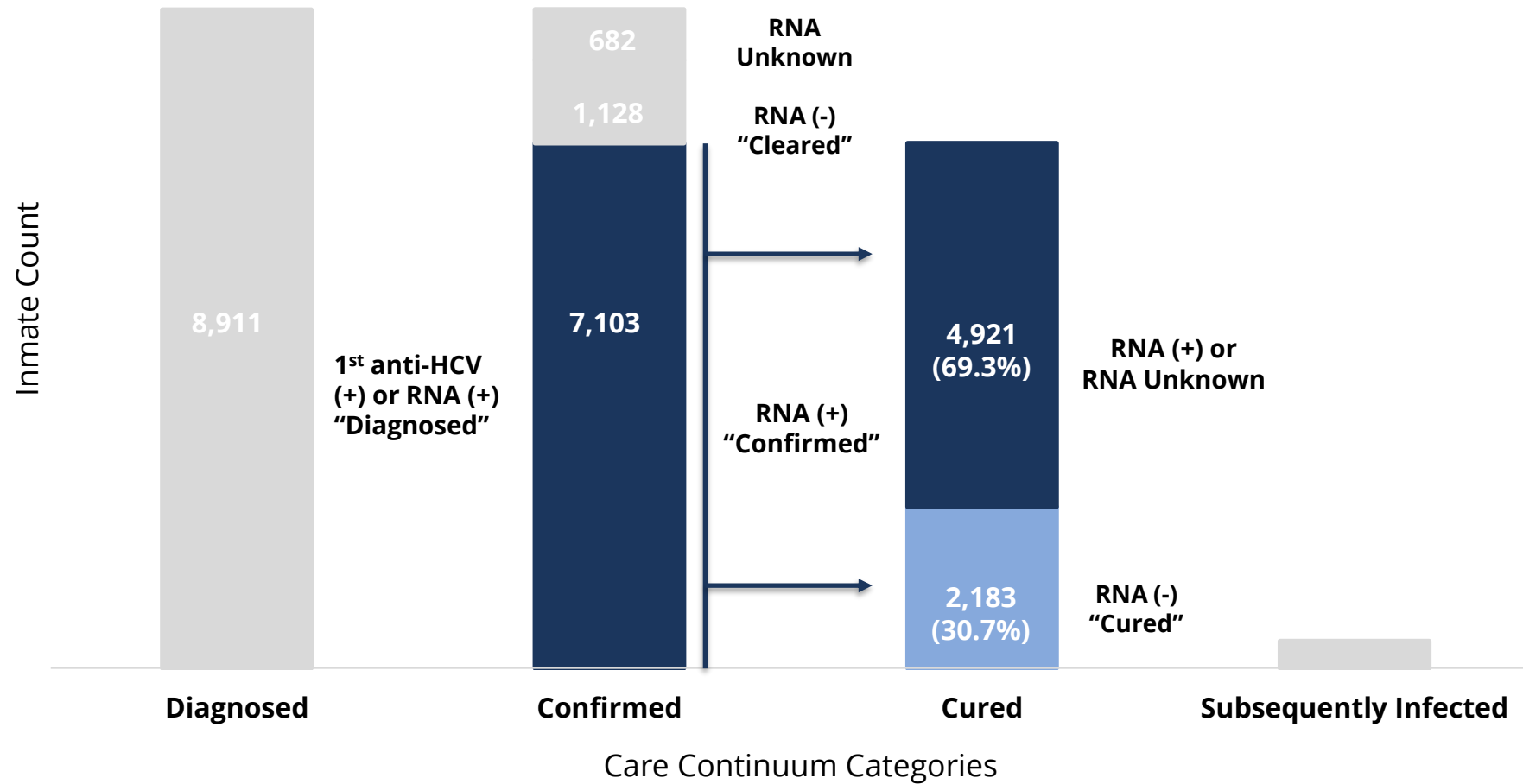




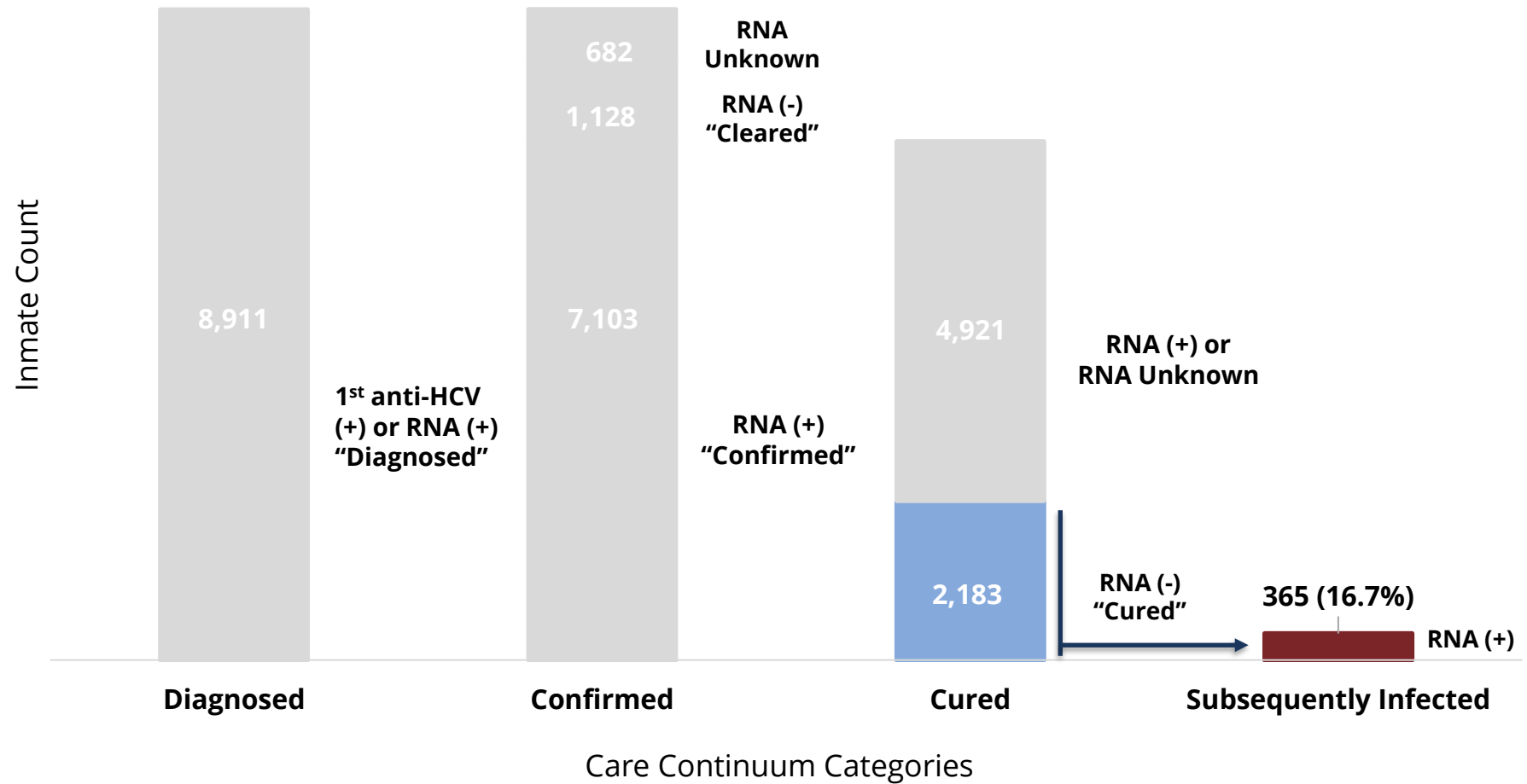
# TDOC HCV Care Continuum (cont.)



# TDOC HCV Care Continuum (cont.)



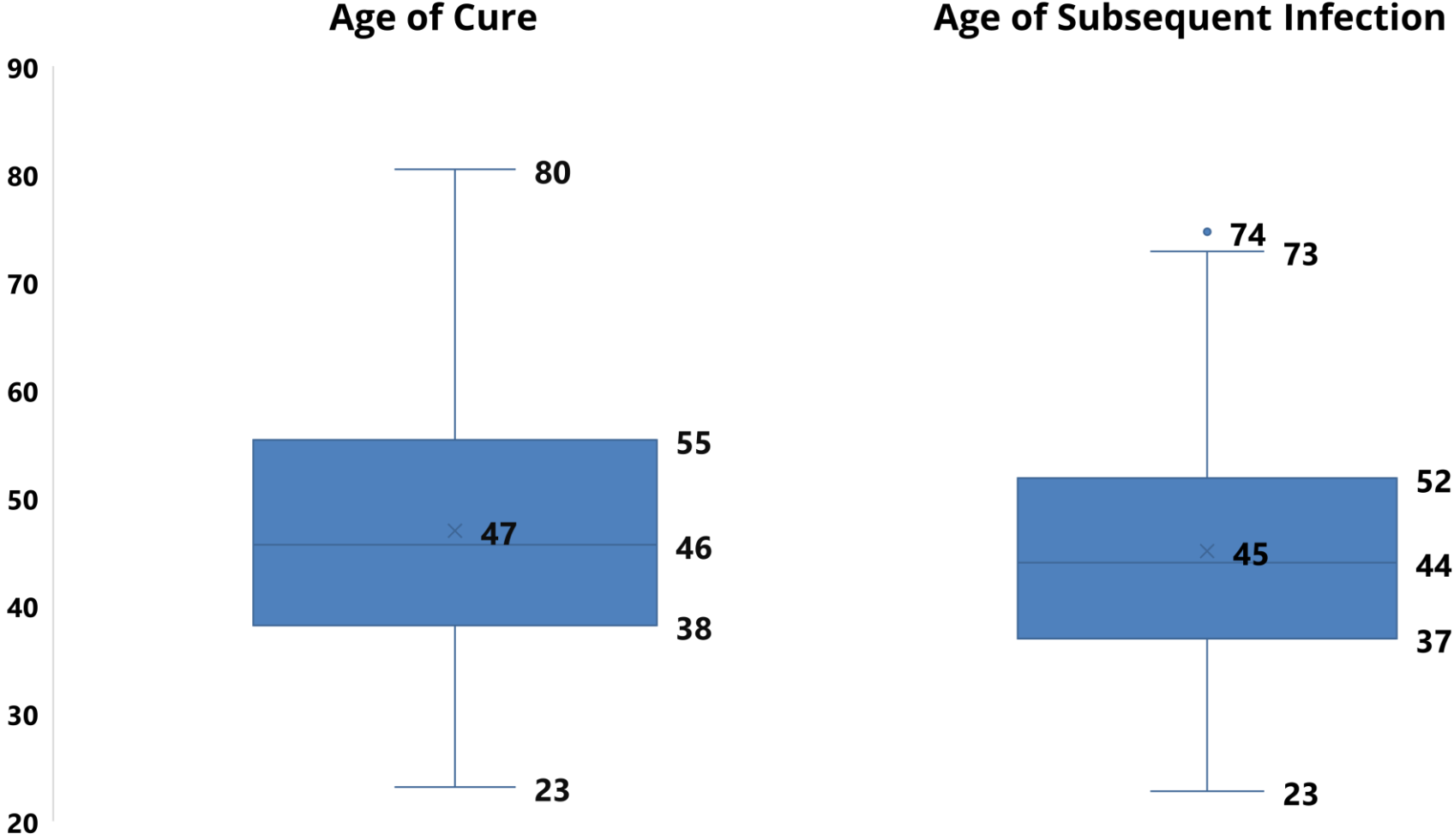
# TDOC HCV Care Continuum (cont.)



# HCV Cure & Reinfection

- The number of “cured” cases increased substantially from one person in 2016 to 956 people in 2021
  - Coincident with TDOC’s intensive HCV treatment efforts
- The average time between achieving HCV cure and evidence of HCV reinfection was **253 days** (8.4 months)

# HCV Cure & Reinfection by Age



Median age at cure and reinfection were similar (47 vs. 45)

# Harm Reduction

- The carceral setting presents substantial challenges for providing harm reduction beyond abstinence
- Currently only 1/14 facilities provides medication for opioid use disorder
- In 2023, TDOC launched a Project ECHO Peer Education Program
  - Train the trainer model that educates on bloodborne pathogen transmission and harm reduction strategies

# Strengths & Weaknesses of Analysis

- Strengths

- Both RNA positive and RNA negative results are laboratory reportable in TN
- TDOC HCV labs are performed at a commercial lab, making reporting consistent and reliable
- Analysis includes approximately 84,000 labs from nearly 9,000 patients across the study time period

- Weaknesses

- Anti-HCV negative results are not laboratory reportable in TN
- Analysis relies only on laboratory data and case definitions as a proxy for treatment which could be an incomplete picture
- Unable to differentiate between treatment failure and reinfection

# Conclusions

- Carceral settings provide a unique opportunity for HCV testing and treatment
- Study demonstrated individuals living with HCV while incarcerated can be successfully cured
- Ongoing efforts to address reinfection risk and provide comprehensive harm reduction are needed
- Similar efforts in county jails could play a crucial role in HCV elimination efforts





Questions?  
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[Paula.Shoup@tn.gov](mailto:Paula.Shoup@tn.gov)

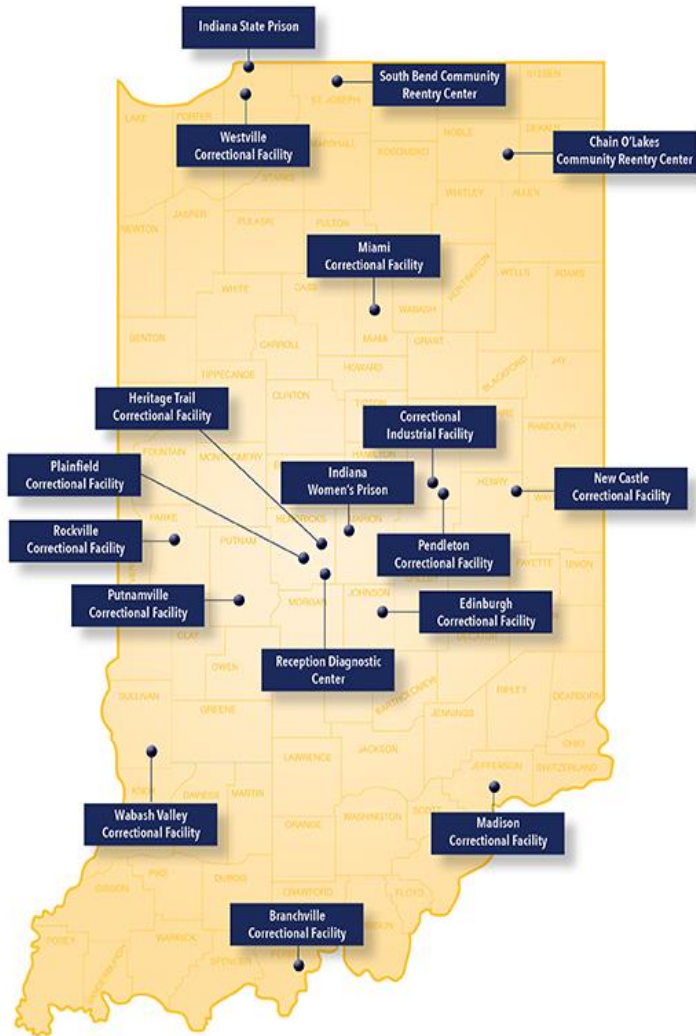
# Hepatitis C in IDOC

Deborah Nichols, Epidemiologist, IDOC

Brittany Gross, Viral Hepatitis Service Program Manager, IDOH



# Indiana Department of Correction (IDOC)

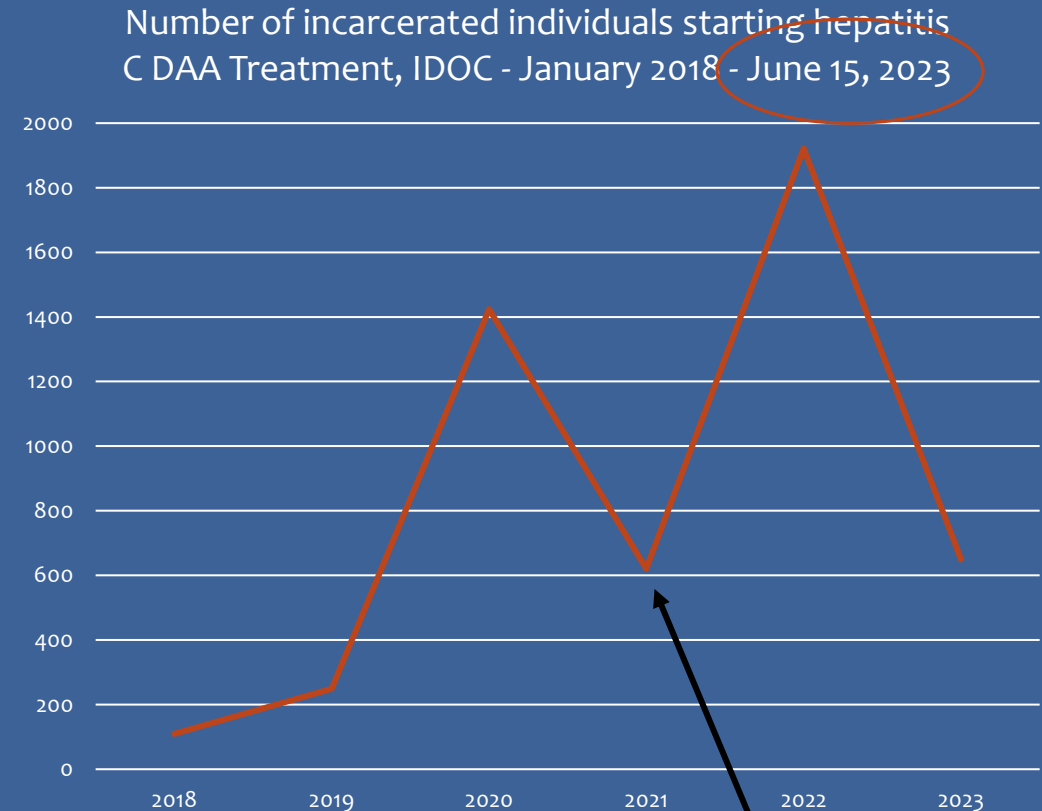


- ◇ 21 Facilities
  - ◇ 18 Adult; 3 Juvenile
  - ◇ 2 Private
- ◇ ~23,300 Adults; 365 Juvenile
- ◇ Avg Age = 40
- ◇ 63% White; 32% Black; 4% Hispanic
- ◇ 91% Male; 9% Female
- ◇ 23% intakes anti-HCV positive (2020-2022)



# Scaling up hepatitis C treatment in IDOC

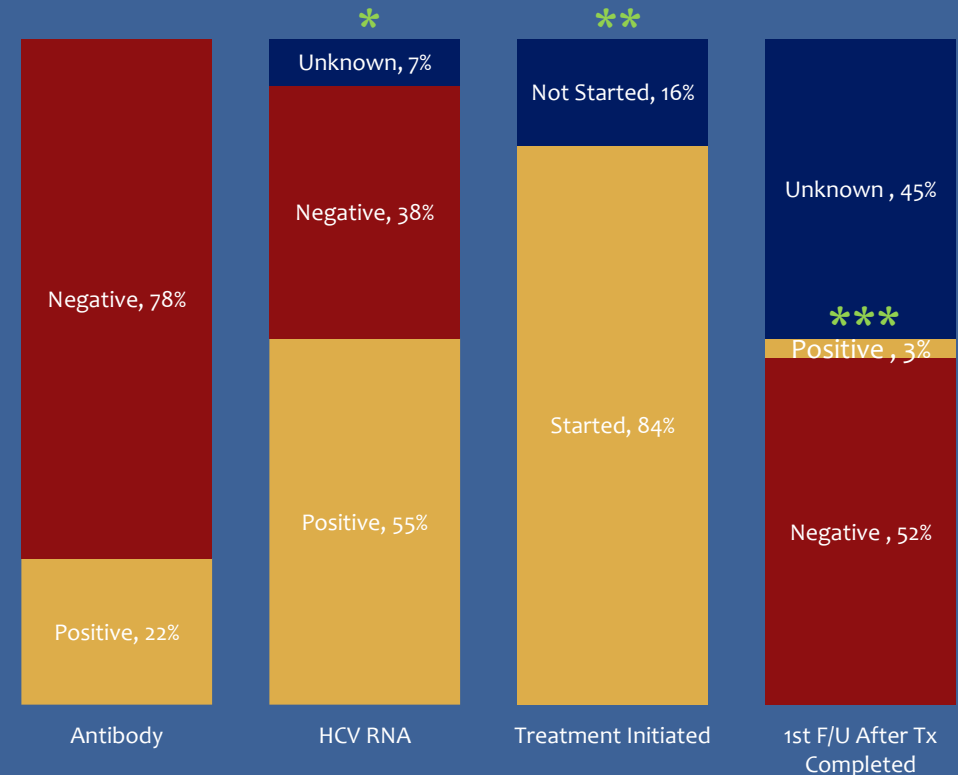
- ◆ Stafford v. Carter, 2017
- ◆ All current [and future] prisoners in IDOC custody who have been diagnosed, [or will be diagnosed], with chronic HCV, and for whom treatment with DAA medication is not medically contraindicated.
- ◆ Schedule
  - ◆ APRI  $\geq 1.5$
  - ◆ APRI  $\geq 0.7$  but  $< 1.5$
  - ◆ APRI  $< 0.7$  but  $\geq 0.4$
  - ◆ **APRI  $< 0.4$  by – July 1, 2023 – UNIVERSAL TX**
  - ◆ Includes newly infected or reinfected



Switched health services provider

# IDOC Hepatitis C Care Cascade (Intakes/PV)

- ◇ N=8,459, Jan 2022 – Nov 2022
- ◇ RNA Missing\*
  - ◇ Released before RNA test
  - ◇ Refused
    - ◇ “Does not believe in hepatitis C”
    - ◇ “Scared of getting blood drawn”
- ◇ Treatment not started\*\*
  - ◇ Released; Contraindications
  - ◇ Refused
    - ◇ “Don’t need it”
    - ◇ “Want more tattoos”
    - ◇ “Religious reasons”
    - ◇ “Does not believe in taking medication”
- ◇ Positive post treatment\*\*\*
  - ◇ N=24 Treatment failure or re-infection



# IDOC Hepatitis C Testing and Treatment

## Testing

- ◆ Intake and parole violator, opt-out hepatitis C screening by IDOH lab
- ◆ No reflex testing at intake, requires separate blood draw by contracted health provider
- ◆ Added in June 2022
  - ◆ Once per year, anti-HCV screening
  - ◆ During annual exam
  - ◆ No risk factors asked
  - ◆ No co-pay

## Treatment

- ◆ Everyone who is eligible can get treatment
  - ◆ Stays in chronic care until SVR documented
  - ◆ If released before treatment, then considered special needs release
- ◆ Reinfections are eligible for treatment





# IDOC Hepatitis C Education and Funding

## Education - INPEP



## Funding

- ◆ State of Indiana Budget
  - ◆ Treatment DAA Cost – IDOC
    - ◆ 340B pricing
    - ◆ Ps17-1703/PS21-2103
    - ◆ In-Kind MOU b/t IDOC & IDOH
- ◆ Testing - IDOH
  - ◆ Intake/PV screening
- ◆ Contracted Health Services
  - ◆ Everything else



Indiana  
Department  
of  
Health



A replication of the New Mexico Peer Education Program ECHO

# Transitional Health Services

## IDOC

- ◆ Expanded post Stafford v. Carter
- ◆ Will ensure activation of benefits
- ◆ If not treated in IDOC; people are considered special needs releases and prioritized for transitional health services



## IDOH

- ◆ Viral Hepatitis Services Program (2020)
- ◆ State funded
- ◆ State oversight
- ◆ Five sites
- ◆ Five care coordinators
- ◆ Collaboration with IDOC



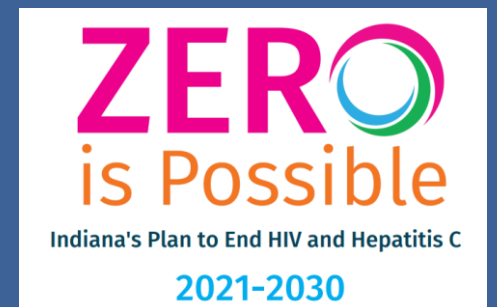


# Hepatitis C Linkage-to-Care Expansion in Indiana

## Connect to Cure Program (2022)

- ◆ Federal pass-through funds granted by IDOH
- ◆ Collaborative program between The Health Foundation of Greater Indianapolis (THFGI) and the Damien Center
- ◆ 21 sites
- ◆ 20 care coordinators; currently 19 are hired; plus four state funded
- ◆ 13 testers/peer specialists (One full-time position/ ZIP Coalition)

Moving forward, the two programs will collaborate and be known throughout the state as Connect to Cure



# The program

Creates a community of practice for care coordinators through:

- ◆ Training
- ◆ Data management system
- ◆ Outreach and community engagement
- ◆ Outreach supplies

Assist those living with hepatitis C through:

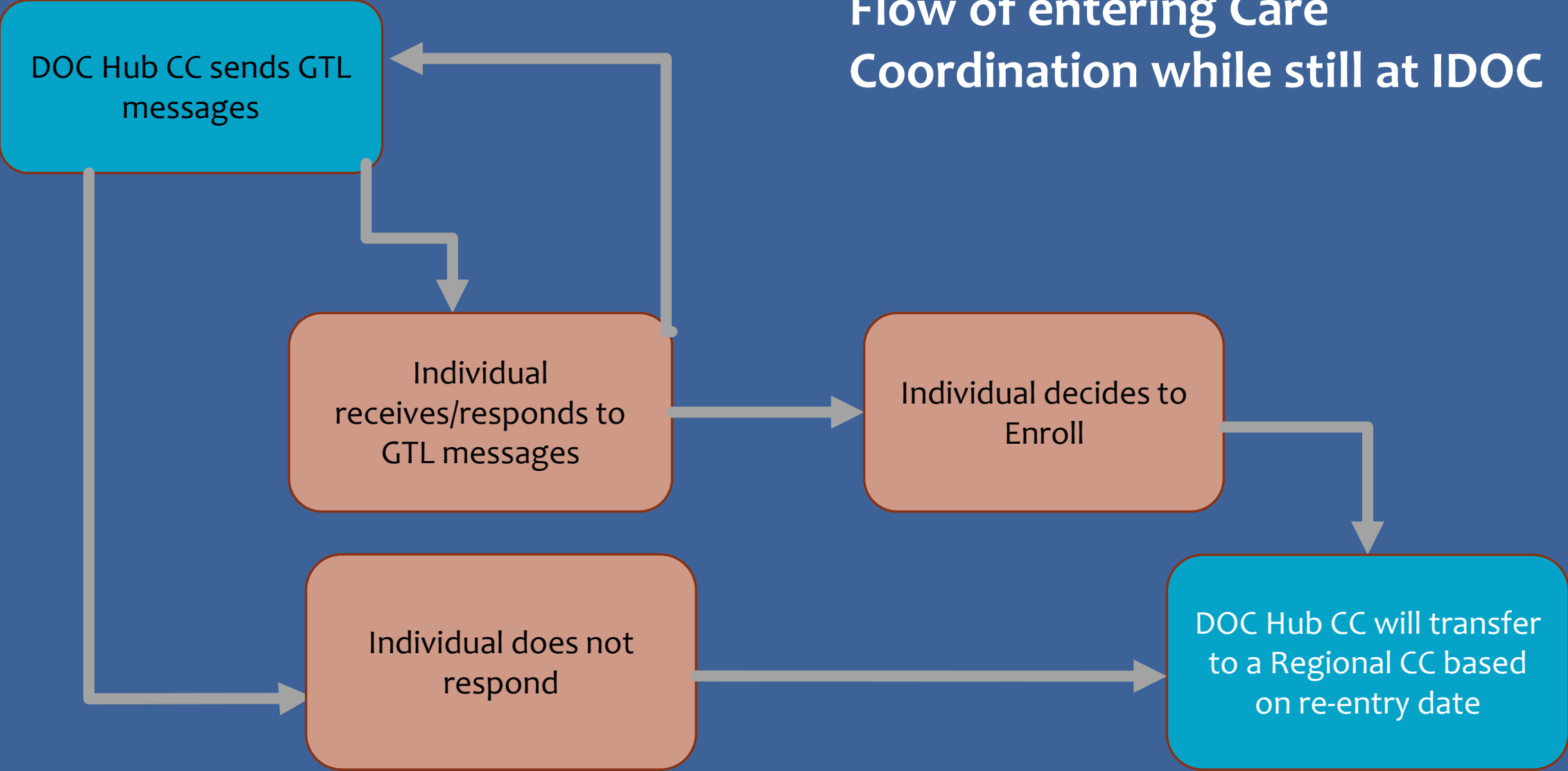
- ◆ Testing/peer specialist
- ◆ TeleHealth
- ◆ RNA testing through dried blood spot testing
- ◆ Insurance navigation
- ◆ Hep Medical Assistance Program or Hep MAP
- ◆ Nutrition and transportation assistance cards



# Linkage to Care from the community

- ◇ Information on how to contact the Care Coordinators is available and folks contact the care coordinators when they want to address their hepatitis C.
  - ◇ [www.connecttocure.com](http://www.connecttocure.com)
  - ◇ [Ask+ActIndiana.com](http://Ask+ActIndiana.com)
  - ◇ [Health: HIV/STD/Viral Hepatitis: Viral Hepatitis Services Program \(in.gov\)](http://Health:HIV/STD/ViralHepatitis:ViralHepatitisServicesProgram.in.gov)
- ◇ Providers, community-based organizations, partners, and local health department will refer to the Care Coordinators and they will attempt to contact those individuals.

# Flow of entering Care Coordination while still at IDOC



# Questions

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Viral Hepatitis Service Program Manager  
Indiana Department of Health  
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# Hepatitis C Virus Treatment in Correctional Settings: New Mexico Experience

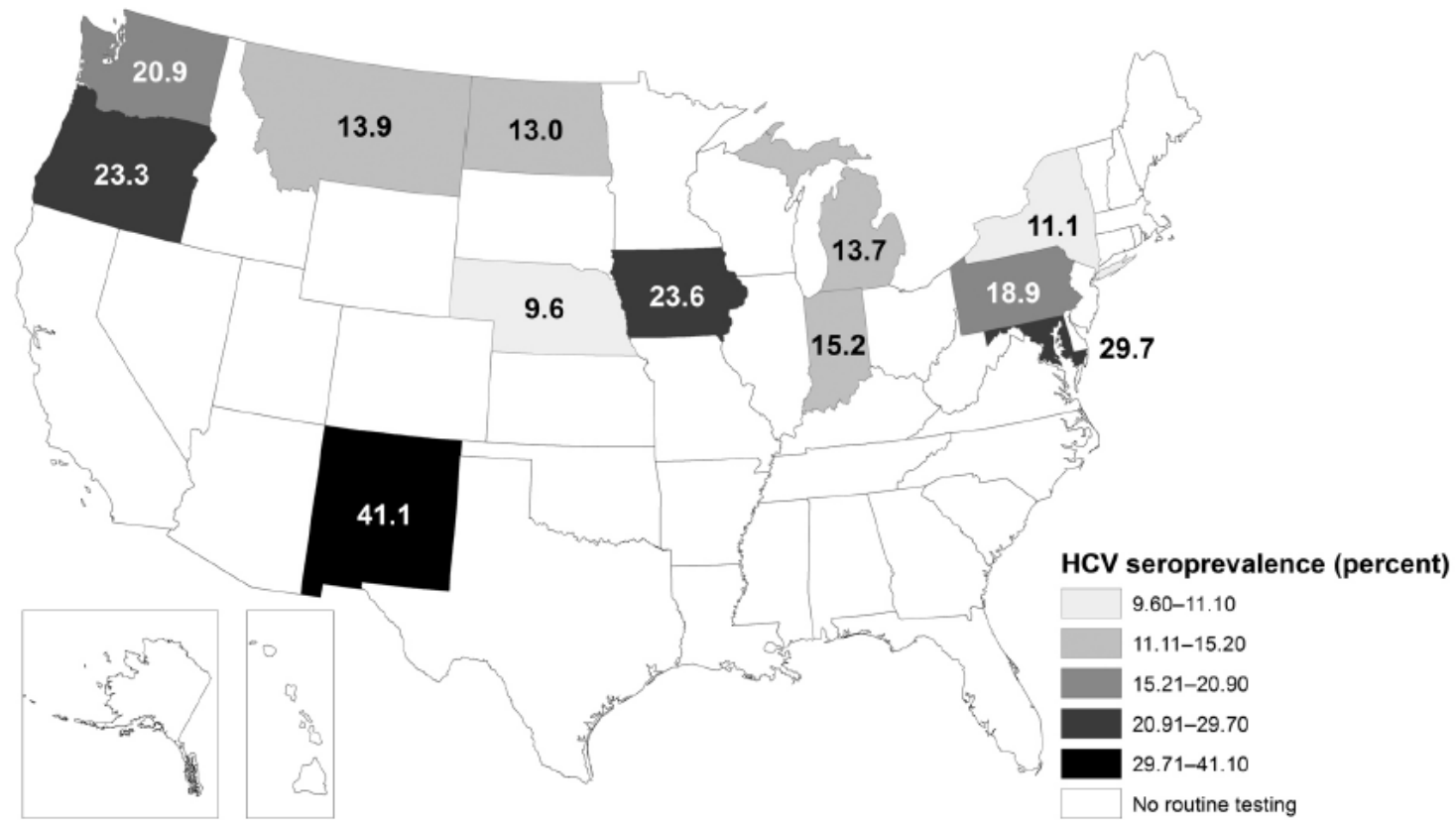
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**PAULINA DEMING, PHARMD** | PROJECT ECHO ASSOCIATE DIRECTOR VIRAL  
HEPATITIS PROGRAMS &

ASSOCIATE PROFESSOR, UNM COLLEGE OF PHARMACY

**KARLA THORNTON, MD, MPH** | PROJECT ECHO SENIOR ASSOCIATE DIRECTOR &  
PROFESSOR, UNM INFECTIOUS DISEASES

Figure 1. HCV seroprevalence among inmates in selected U.S. state prisons, 2001–2012<sup>a</sup>



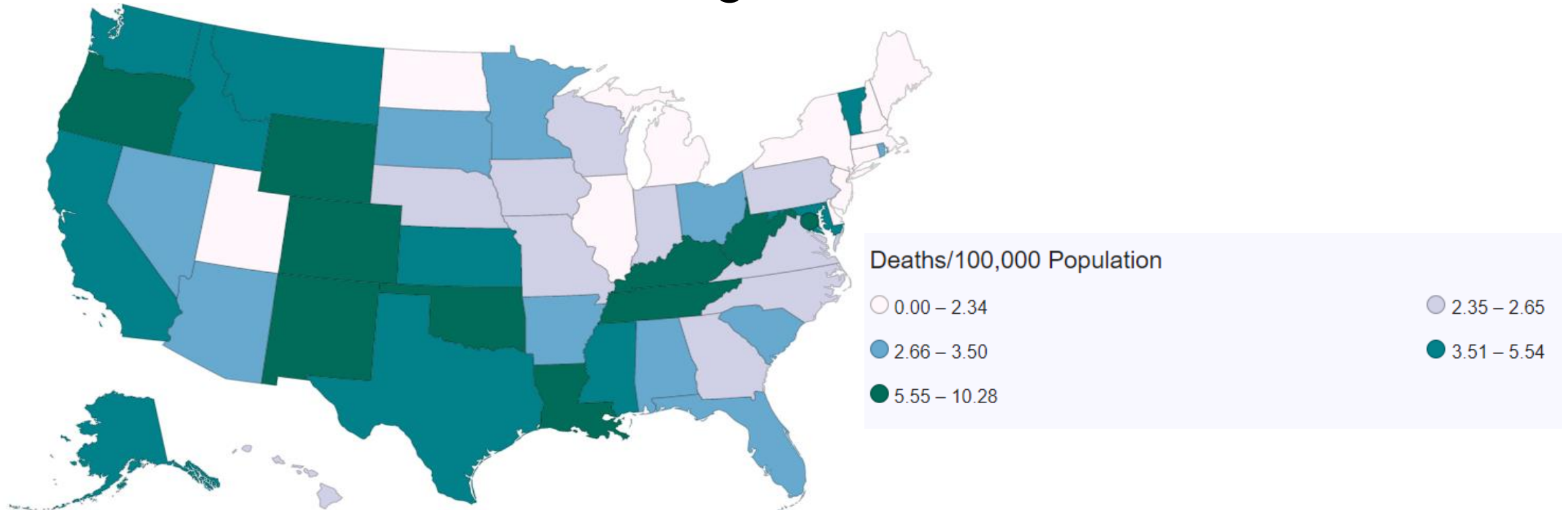
<sup>a</sup>Where multiple seroprevalence estimates were available since 2001, we used the observation closest in date to 2006 (preferentially selecting earlier observations).

HCV = hepatitis C

PUBLIC HEALTH REPORTS / MARCH–APRIL 2014 / VOLUME 129

Varan AK, Mercer DW, Stein MS, Spaulding AC. Hepatitis C seroprevalence among prison inmates since 2001: still high but declining. Public Health Rep. 2014 Mar-Apr;129(2):187-95. doi: 10.1177/003335491412900213. PMID: 24587554; PMCID: PMC3904899.

# New Mexico Has the 4<sup>th</sup> Highest HCV Death Rate

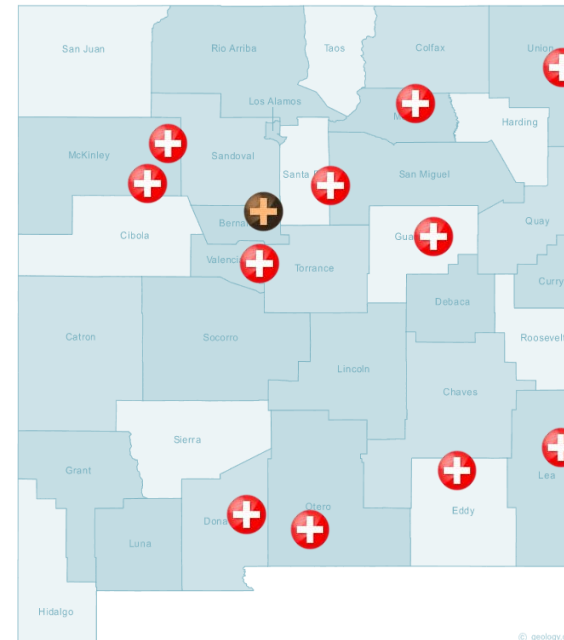




# Project ECHO and NMCD

## New Mexico State Corrections Department

- Eleven prisons
- Average daily population 7,000
- 50% anti-HCV positive upon entry
- 35-40% HCV viremic



- ⊕ Specialist
- ⊕ Prison medical staff



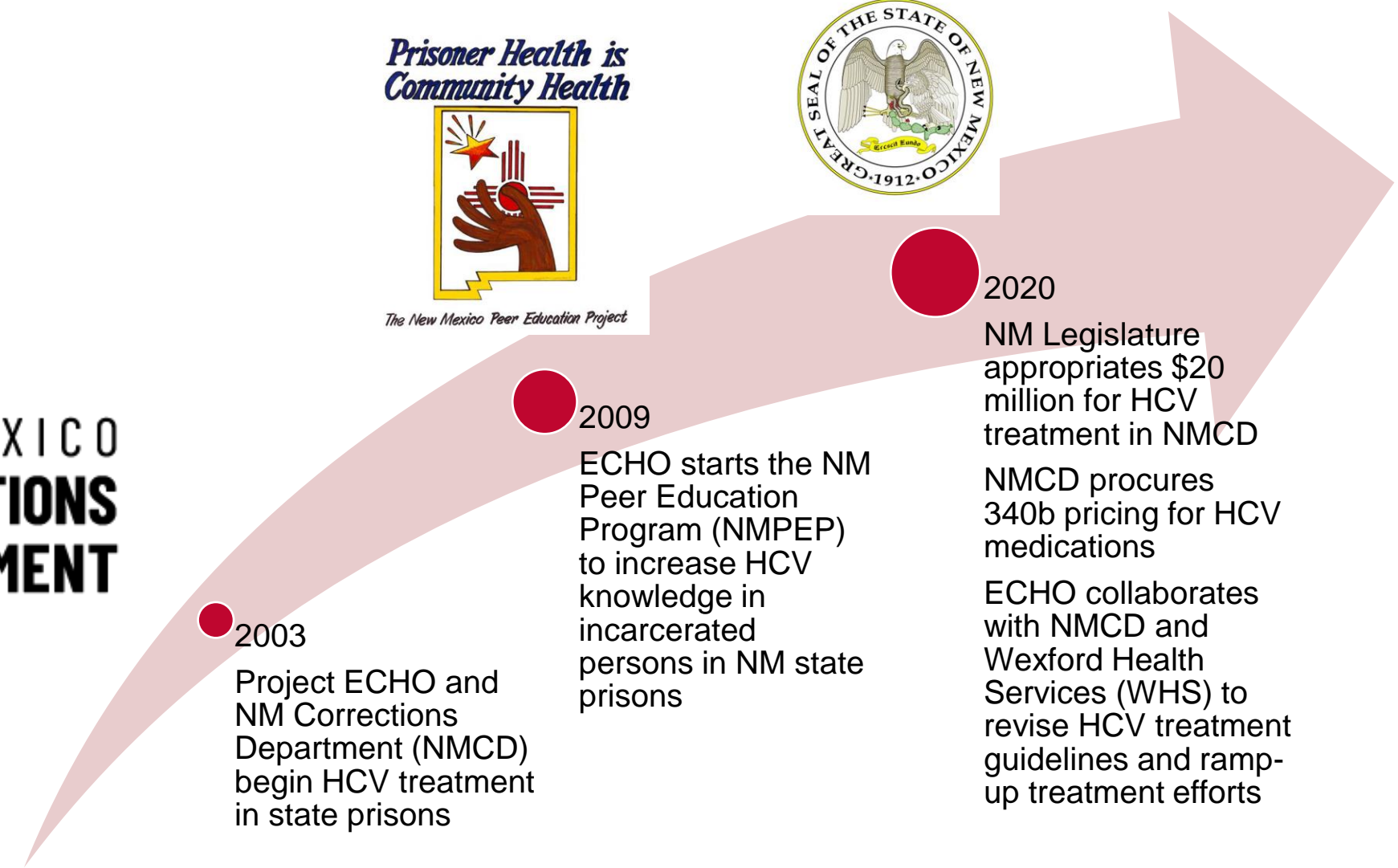


# NEW MEXICO CORRECTIONS DEPARTMENT

*Prisoner Health is  
Community Health*



*The New Mexico Peer Education Project*



2003  
Project ECHO and  
NM Corrections  
Department (NMCD)  
begin HCV treatment  
in state prisons

2009  
ECHO starts the NM  
Peer Education  
Program (NMPEP)  
to increase HCV  
knowledge in  
incarcerated  
persons in NM state  
prisons

2020  
NM Legislature  
appropriates \$20  
million for HCV  
treatment in NMCD  
NMCD procures  
340b pricing for HCV  
medications  
ECHO collaborates  
with NMCD and  
Wexford Health  
Services (WHS) to  
revise HCV treatment  
guidelines and ramp-  
up treatment efforts



# Hepatitis C Screening and Treatment Guidelines



**NEW MEXICO**  
**CORRECTIONS DEPARTMENT**

Cabinet Secretary  
Alisha Tafoya Lucero

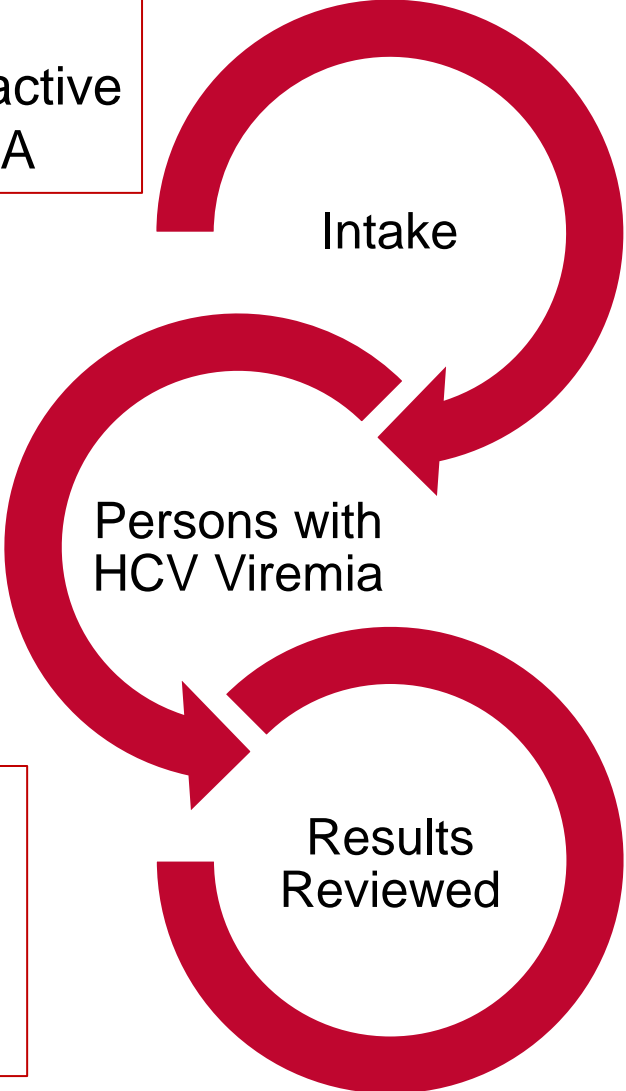
4337 State Road 14, Santa Fe, NM 87508 - PO Box 27116, Santa Fe, NM 87502-0116  
Phone: 505.827.8645 Fax: 505.827.8533 [cd.nm.gov](http://cd.nm.gov)

July 8, 2021

## Hepatitis C Screening and Treatment Guidelines.

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). It is primarily transmitted through contact with blood from an infected person. In the prison system this is usually through sharing needles to inject drugs or through tattooing prior to or during incarceration. HCV can also be transmitted through sexual contact or perinatally from mother to baby, but these modes of transmission are relatively inefficient and account for a small percentage of cases. There is no vaccine for HCV. The best way to prevent HCV is by avoiding behaviors that can spread the disease, especially injecting drugs. Getting tested for HCV is important because treatment is curative in > 95% of patients in 8 to 12 weeks.

- All screened for HCV antibody
- HCV antibody reactive reflex to HCV RNA



- Transient elastography
- Baseline labs: CBC, CMP, Anti-HBc, Anti-HBs, HBsAg, Anti-HAV, HIV

- Weekly intake log with laboratories and elastography reviewed
- Monthly master log of lab data of known patients with HCV

## Patients presented to ECHO:

Patients with decompensated cirrhosis

Patients with cirrhosis or advanced fibrosis:

- Presence or history of ascites
- Presence or history of esophageal varices
- Platelet count <150,000
- Albumin < 3.5 g/dL
- Fibroscan >12.5 kPa
- Imaging with evidence of cirrhosis

Patients with any of the following:

- History of prior HCV treatment failure
- Sustained ALT >300 U/L
- Prior HCV treatment
- End stage renal disease (GFR <30)
- Coinfection with HIV
- HBsAg positivity
- Organ transplant
- Pregnancy
- Hepatocellular carcinoma

Patients concurrently taking carbamazepine, oxcarbazepine, phenytoin, phenobarbital or rifampin

All other Patients:

Treated according to simplified algorithm

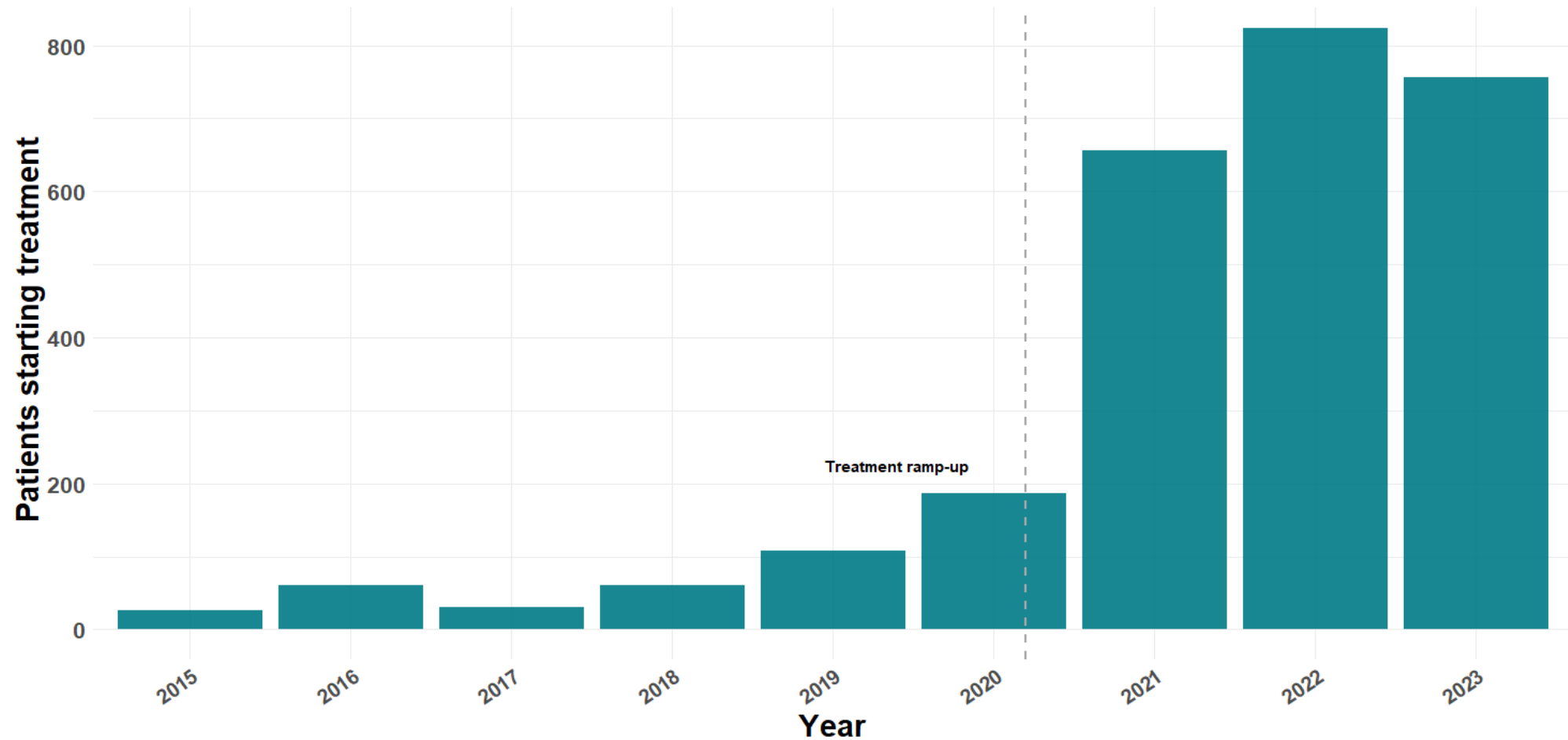


Sofosbuvir/velpatasvir x 12 weeks



Repeat HCV RNA and LFTs  $\geq 12$  weeks after end of treatment

# Number of People Starting HCV Treatment in NMCD per year 1/2015-8/2023

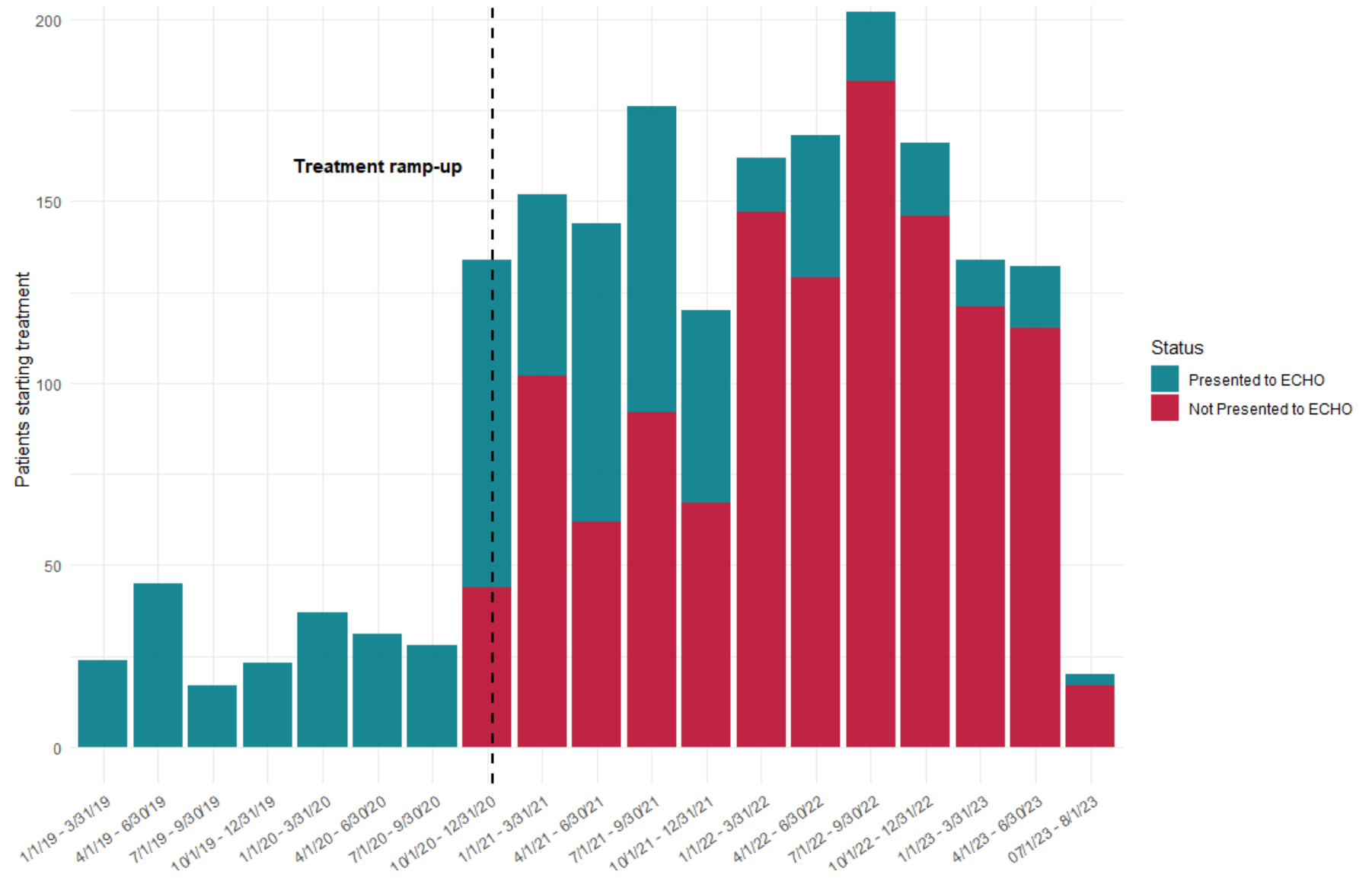


# NMCD HCV Patient Demographics, 1/2019 – 8/2023

Characteristic	Persons with HCV Viremia N= 3,659	Persons who started treatment N = 1,629
<b>Gender</b>		
Male	3,424 (93.6%)	<b>1,511 (92.8%)</b>
Female	235 (6.4%)	118 (7.2%)
<b>Age</b>		
18 to < 30	923 (25.5%)	338 (21.0%)
30 to < 40	1,593 (44.0%)	<b>671 (41.8%)</b>
40 to < 50	779 (21.5%)	<b>400 (25.2%)</b>
50 to < 60	224 (6.7%)	140 (8.7%)
60 +	82 (2.3%)	53 (3.3%)
<b>Cirrhosis status</b>		
Cirrhotic	178 (4.9%)	<b>127 (7.8%)</b>
<b>Genotype***</b>	N = 1,861(1798 not drawn)	N = 1,355 (274 not drawn)
1	1068 (57.4%)	784 (57.9%)
2	97 (5.3%)	68 (5.0%)
3	617 (33.2%)	<b>442 (32.6%)</b>
4	20 (1.1%)	15 (1.1%)
Mixed	59 (3.2%)	46 (3.4%)



# Number of People Starting HCV Treatment in NMCD 1/2015-8/2023 per quarter by ECHO Status





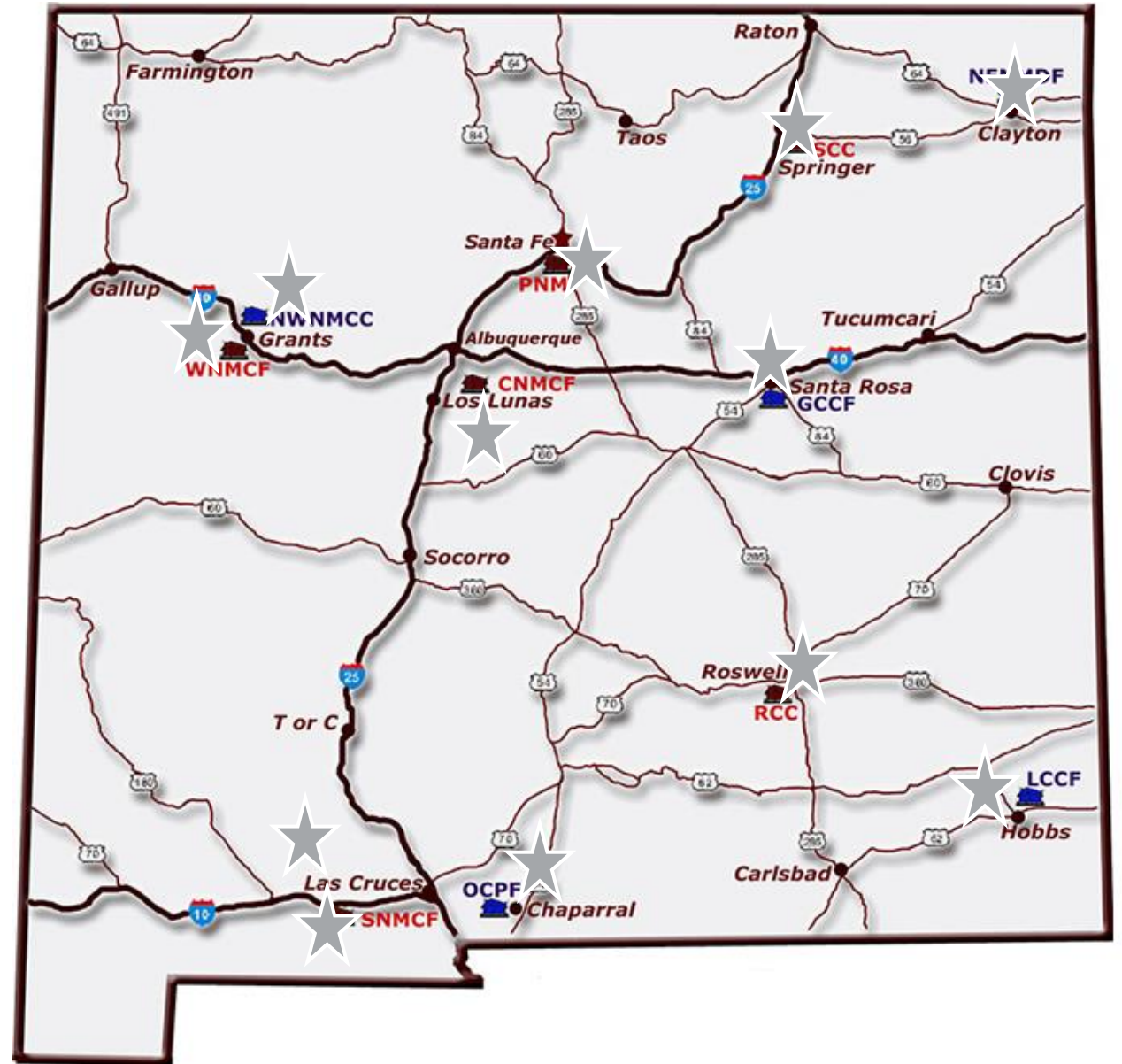
# Prisoner Health is Community Health

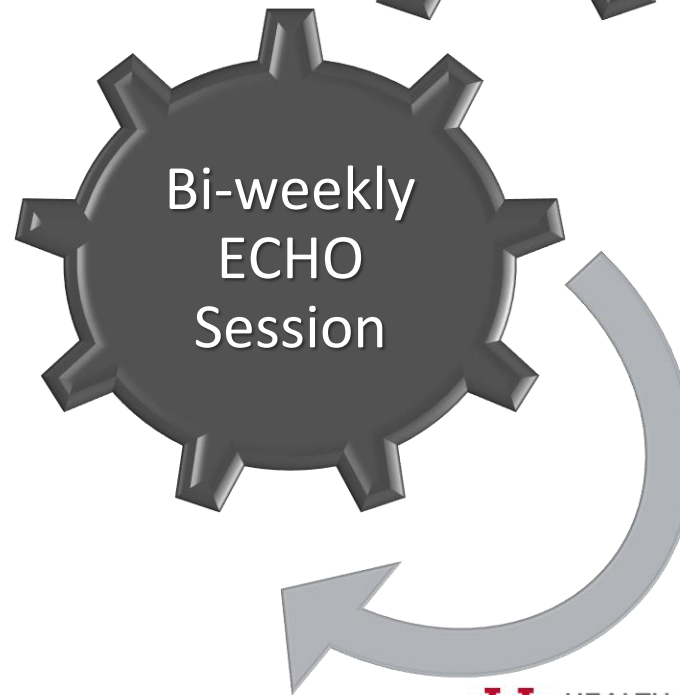
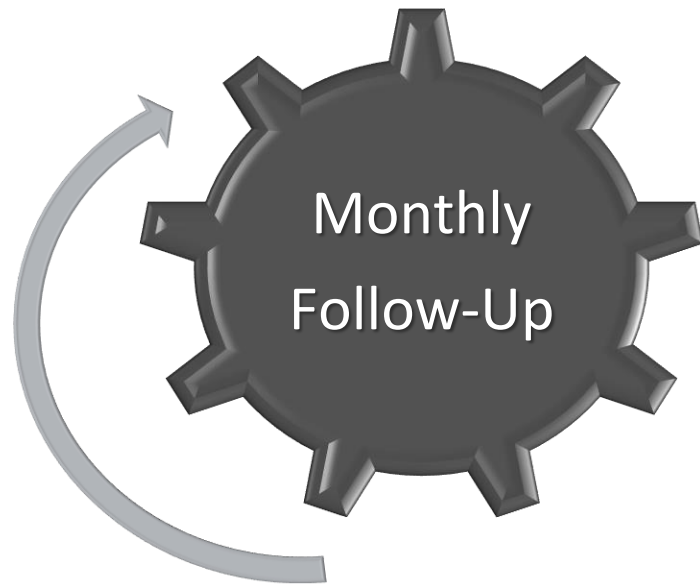


## The New Mexico Peer Education Project

A Training Manual for the New Mexico Corrections Department

Prisoner Health is Community Health is a program of Project ECHO,  
University of New Mexico Health Sciences Center





# Peer Education

- HCV facts: The 5 Questions
  - How do you get it?
  - How do you know you have it?
  - Can it be treated or cured?
  - What can happen if you don't get it treated or cured?
  - How do you prevent getting it or giving it to others?
- HCV Testing and treatment
- HCV Re-infection



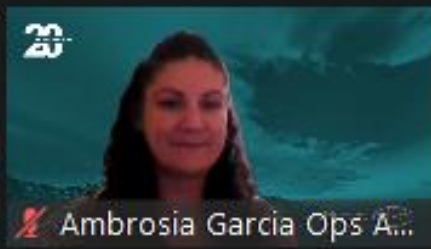








clayton



Ambrosia Garcia Ops A...



WNMCF North



GCCF



SCC EDUCATION



cynthia.vasquez



WNMCF-S Warden



PNM



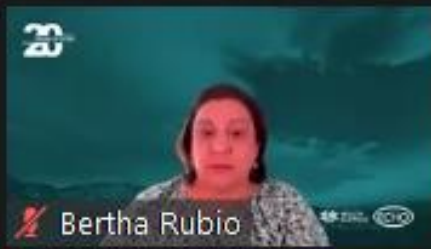
RCC



Roxy



Eartha Hodge



Bertha Rubio



Saul Hernandez



Alan Martinez CPE



Rev. Jane Davis



Nicholas Conner CPE/CP...



Savannah



Melissa Drum CPE/CPSW



Daniel Rowan



Jen Myers, CPE



Kev Kokoska



Syeda.Nargis-NMDOH



Carissa McGee



Project ECHO IT - Sarah



Dr. Yancy

# Peer Education is Critical!

- Educate about HCV and treatment
- Educate about high risk of reinfection and how to prevent it
- Encourage people who have not been treated to talk with their provider
- Encourage people who have refused treatment to reconsider
- Encourage people to explore healthy alternatives to tattooing and drug use

# Challenges

- Refusals
- Post-treatment SVR labs
- Reinfection
- Complexity of working with private medical vendor in the prisons
- Linkage to care upon release

# Summary

- NMCD's HCV treatment program combines necessary and unique components
  - Universal, opt-out screening upon intake
  - Low-barrier treatment with DAAs
  - Complicated cases presented to Project ECHO to receive expert guidance and do not have to be sent out for consultation
  - Peer Education is critical
- National HCV elimination cannot be achieved without coordinated and aggressive treatment and prevention approaches inside prisons



# Thank you!

Questions?

- Karla Thornton [kthornton@salud.unm.edu](mailto:kthornton@salud.unm.edu)
- Paulina Deming [pdeming@salud.unm.edu](mailto:pdeming@salud.unm.edu)