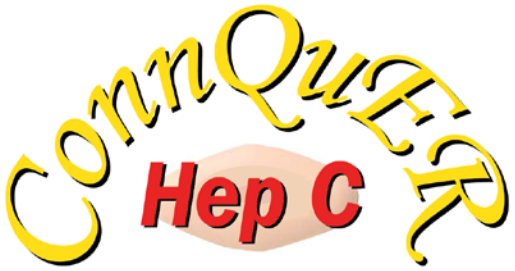
Project ConnQuER
Progress in Eliminating Hep C in Persons with HIV in Connecticut



(Connecticut Quantification, Evaluation, & Response:
HIV/HCV Elimination in Persons of Color)

Getting to Zero through Quality Management:
A 2019 Summit

Merceditas Villanueva, MD
Yale University School of Medicine

Sept. 18, 2019
Hartford, CT

Yale University
School of Medicine

Presentation Outline

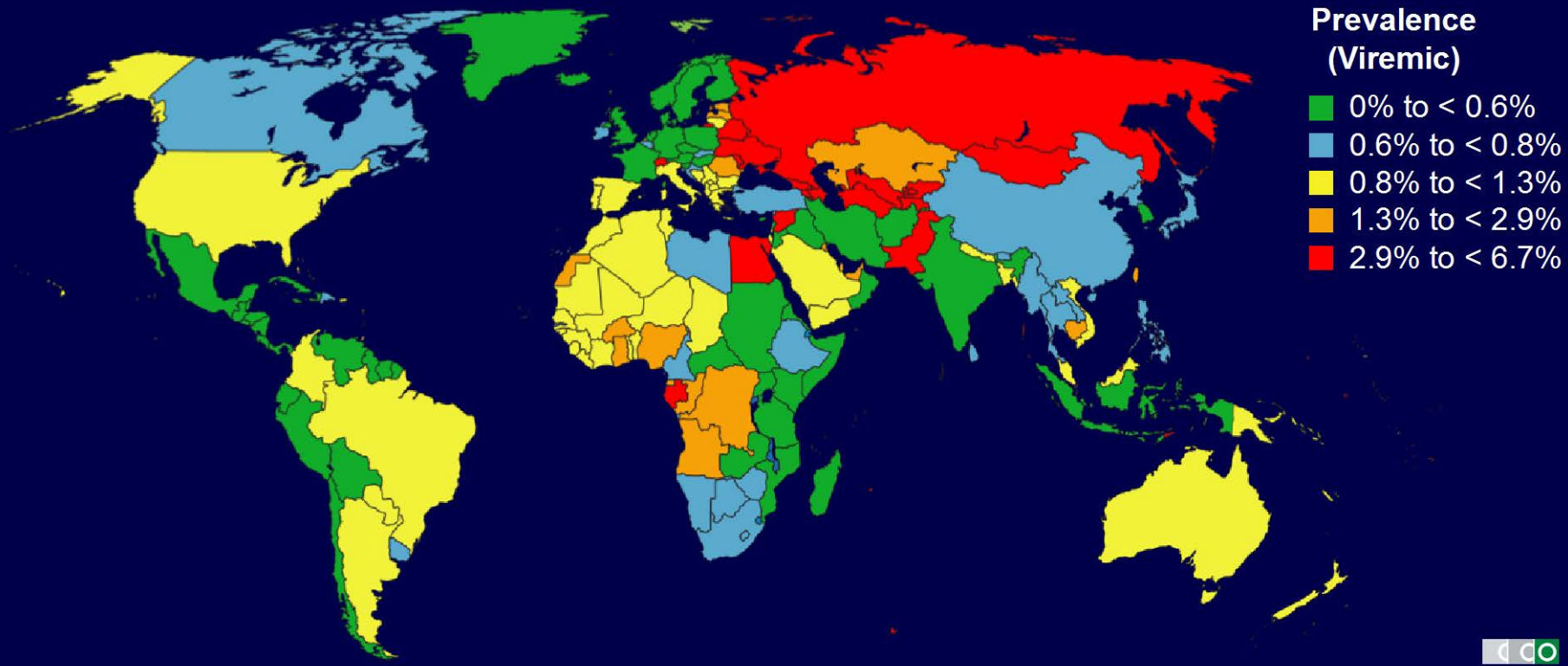
- Review epidemiology of HIV/HCV
- Review goals of Project ConnQuER
- Review progress towards enhancing surveillance of HCV infection among PLWH
- Review preliminary data
  - Multi-site cascade of care
  - Study on use of DIS for HIV/HCV out of care
- Discuss next steps

Overall Project Goals

1. Cure Hepatitis C (HCV) in persons living with HIV (PLWH) in CT, particularly persons of color through improvements in the HCV cascade of care
2. Improve partnerships with key stakeholders
3. Improve surveillance mechanisms statewide for HIV/HCV coinfection

Epidemiology

Estimated 70 Million Persons Living With HCV

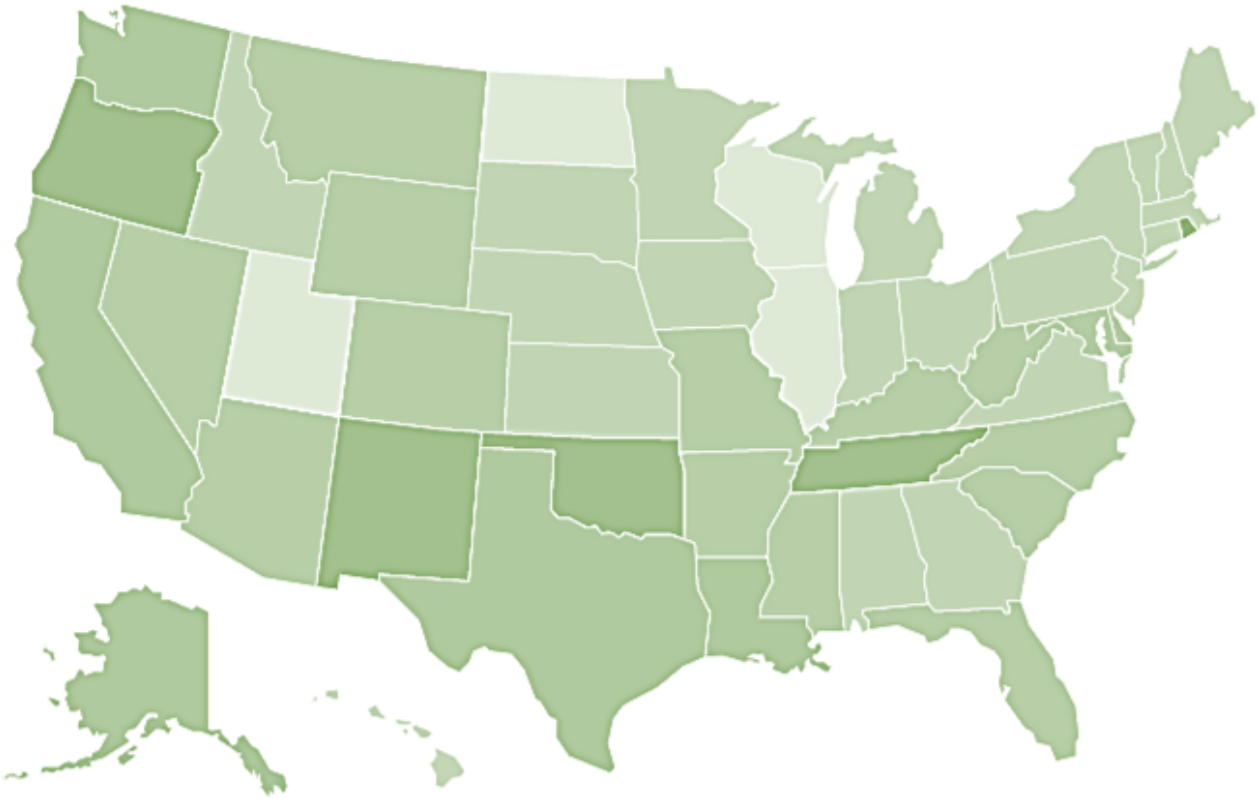


Polaris Observatory HCV Collaborators. Lancet Gastroenterol Hepatol. 2017;2:161-176.

Slide credit: clinicaloptions.com

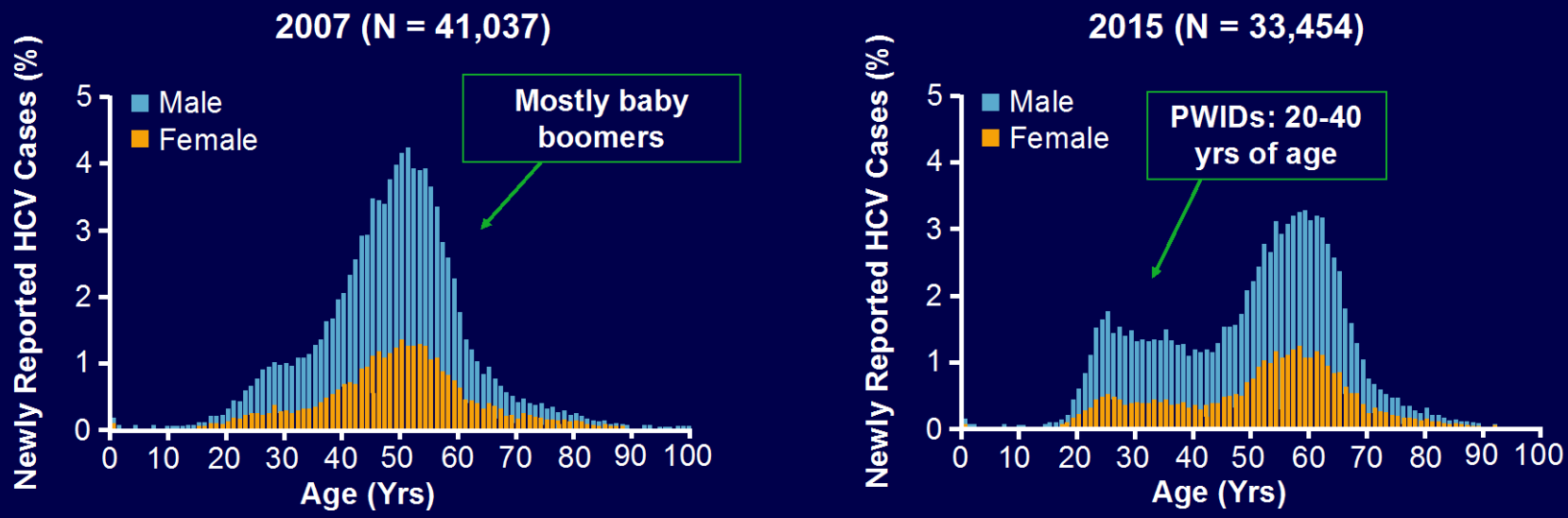
National HCV Statistics

3.5 million individuals



41,200 cases in 2016

Changing Epidemiology of HCV in the US

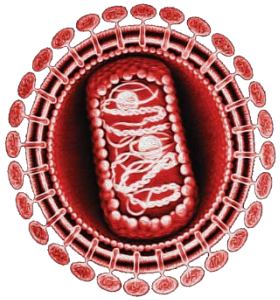


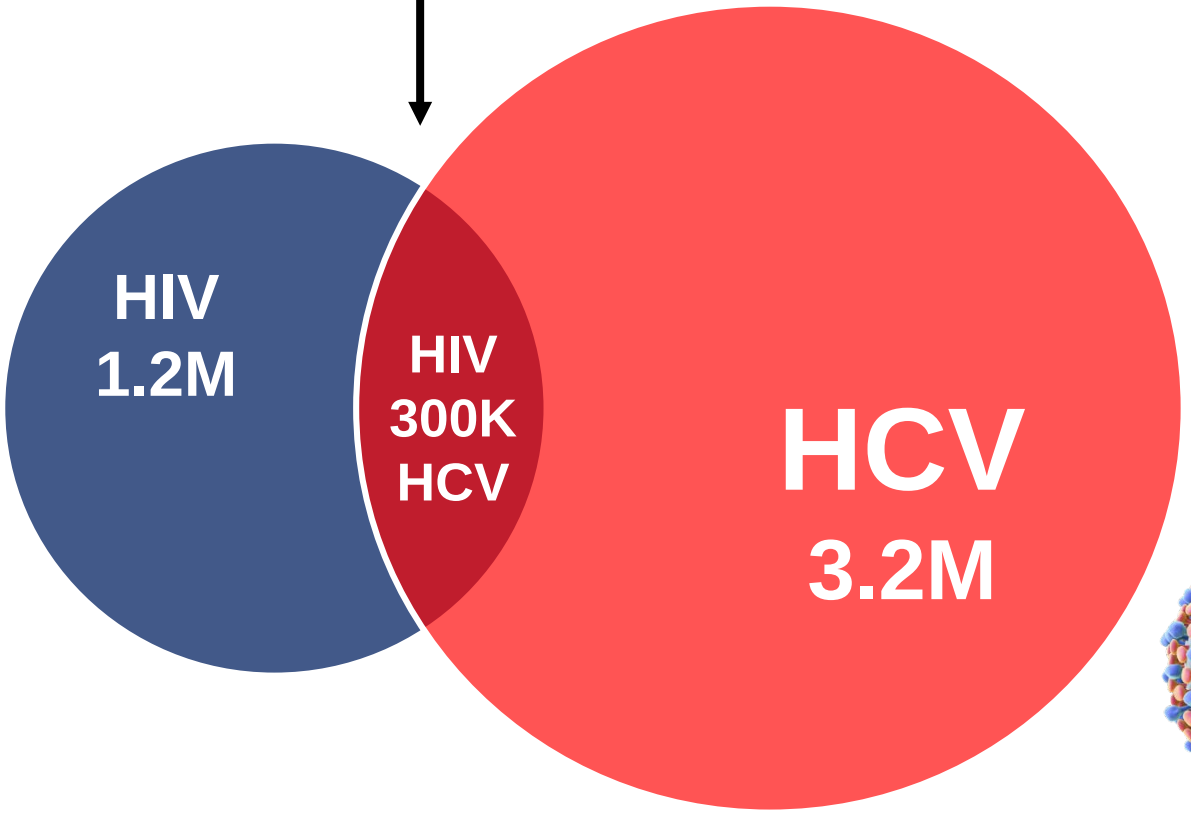
- Screening → linkage to HCV care → DAA treatment cascade must be operative in all those at risk
- Treatment of PWIDs plus harm reduction efforts essential part of elimination efforts

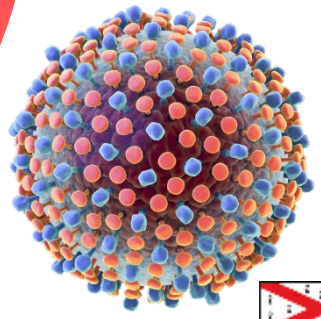
California Department of Public Health. Chronic hepatitis C infections in California: cases newly reported through 2015. June 2017.

Slide credit: clinicaloptions.com

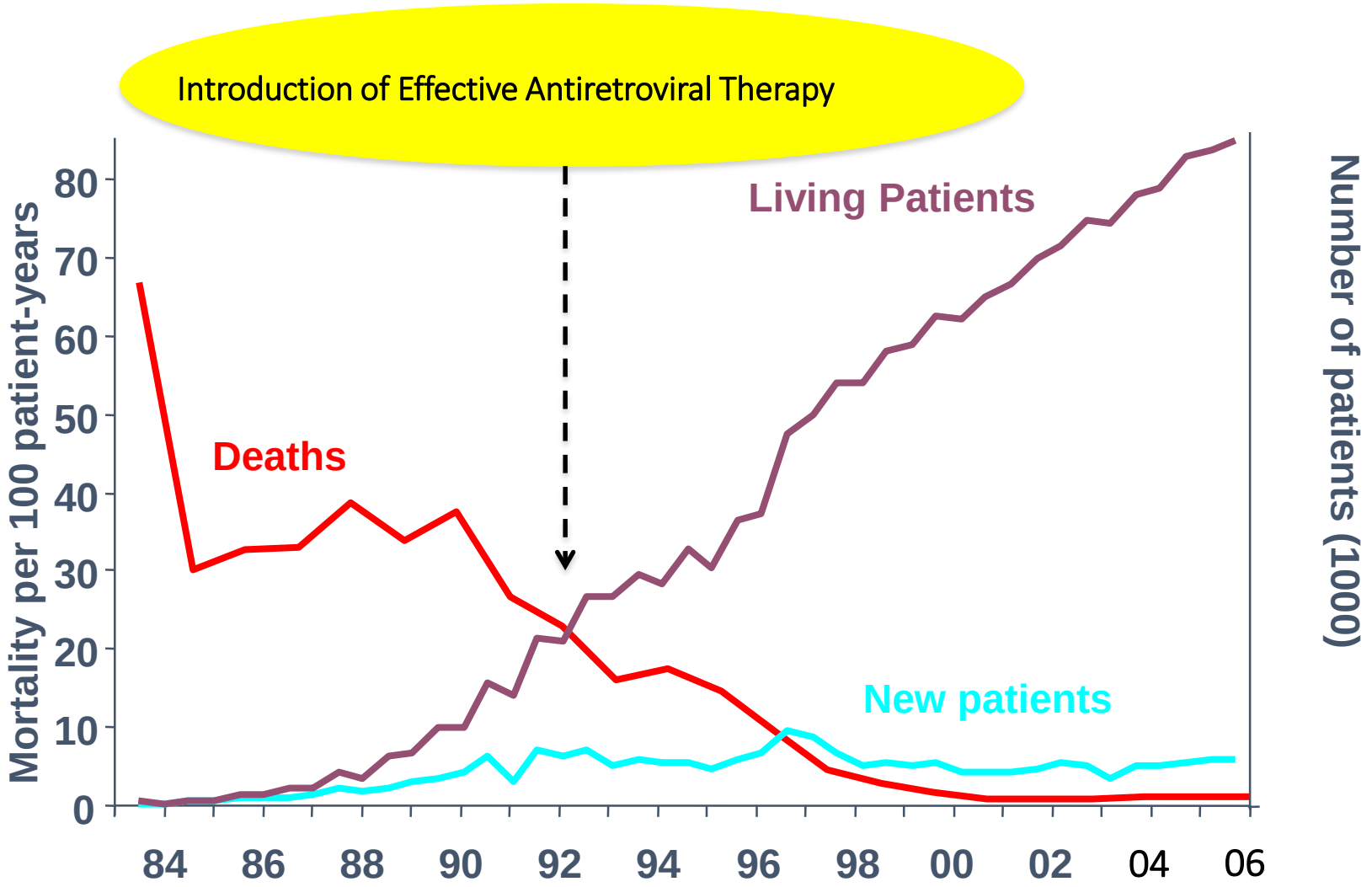
25% have HIV/HCV co-infection



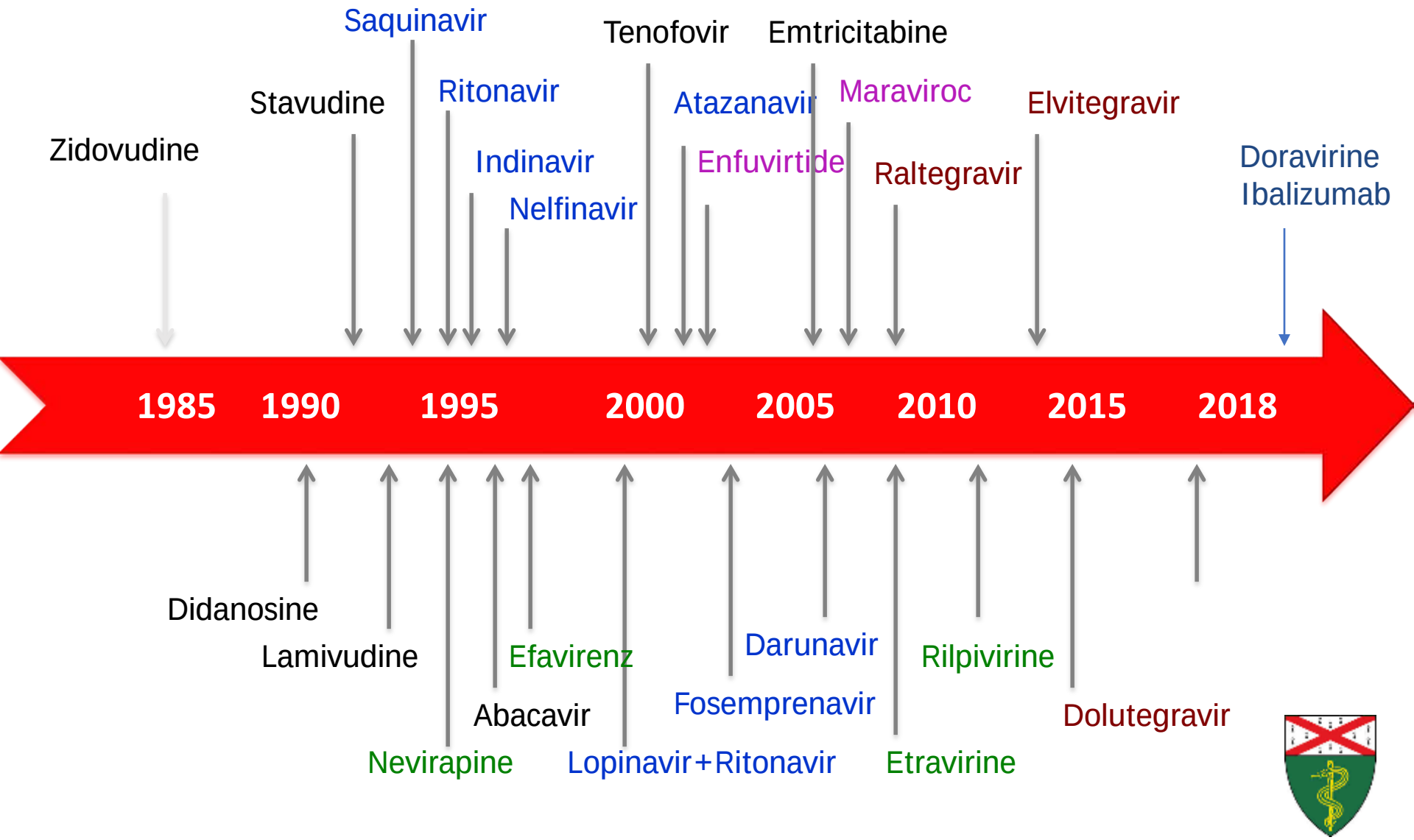




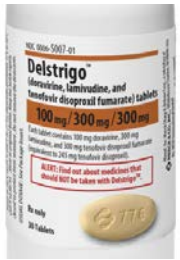
Persons living with HIV are Living Longer



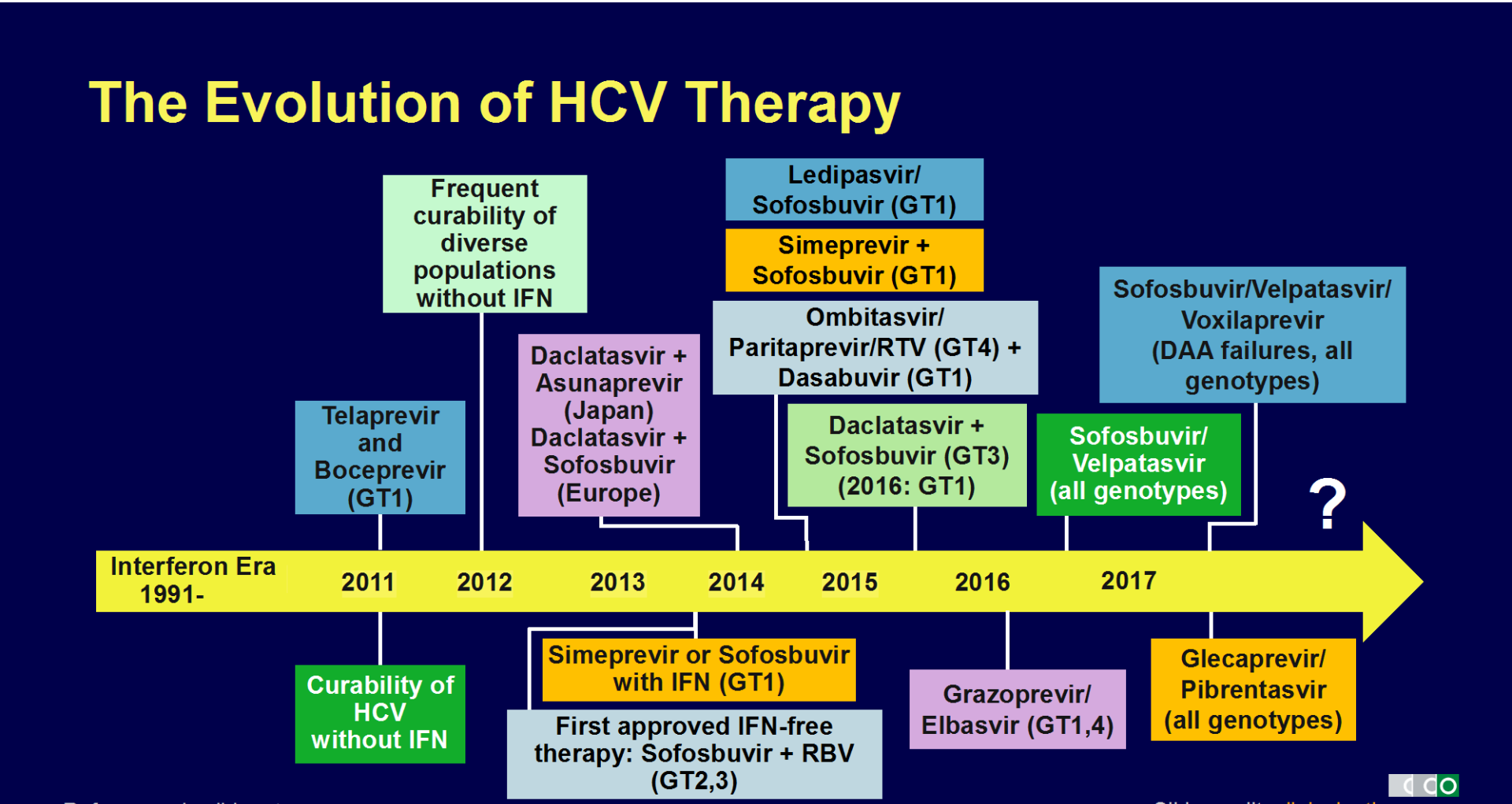
ART Over Time



ART Simpler and Safer



The Revolution of Direct Acting Antivirals (DAAs)



References in slidenotes.

Slide credit: clinicaloptions.com

DAAs 2019 (Partial List)

Summary of Trends

- PLWH are living longer due to advances in HIV treatments
- Persons with HIV/HCV coinfection have increased morbidity and mortality from liver disease
- New HCV treatments with direct acting agents (DAAs) are highly effective
- There are multiple barriers to achieving cure in HIV/HCV coinfected population

Looking at Cascades of Care

TOGETHER WE WILL END AIDS.

OUR GOAL

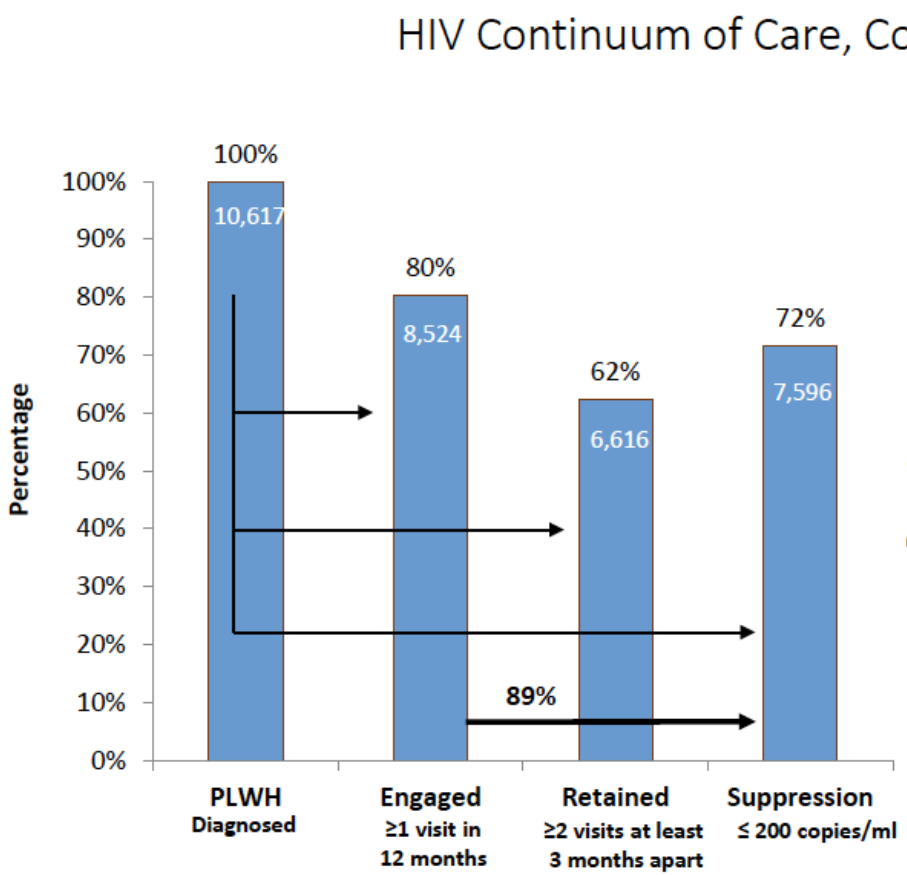
Getting to zero new infections requires…

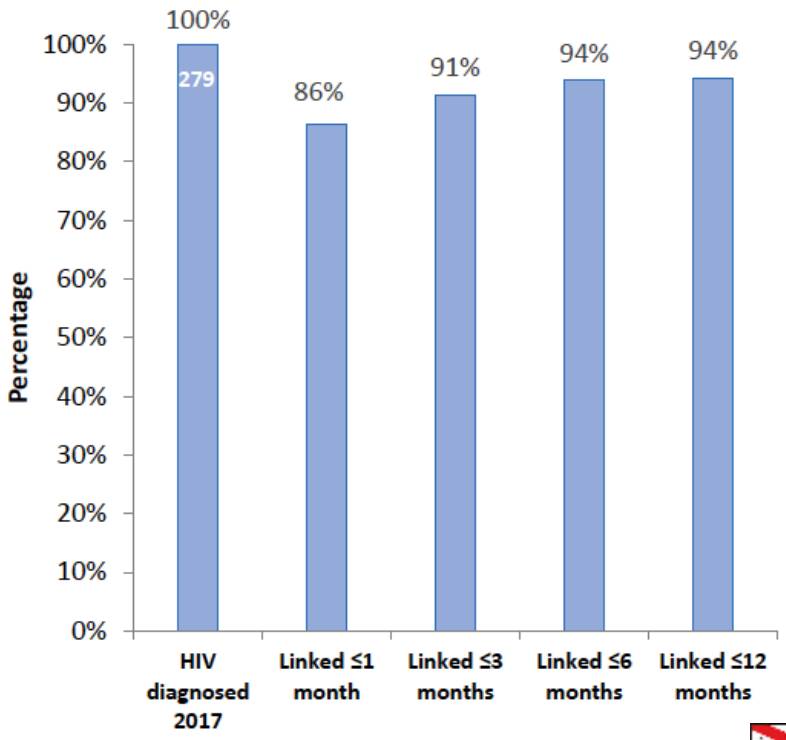
Diagnosed

On treatment

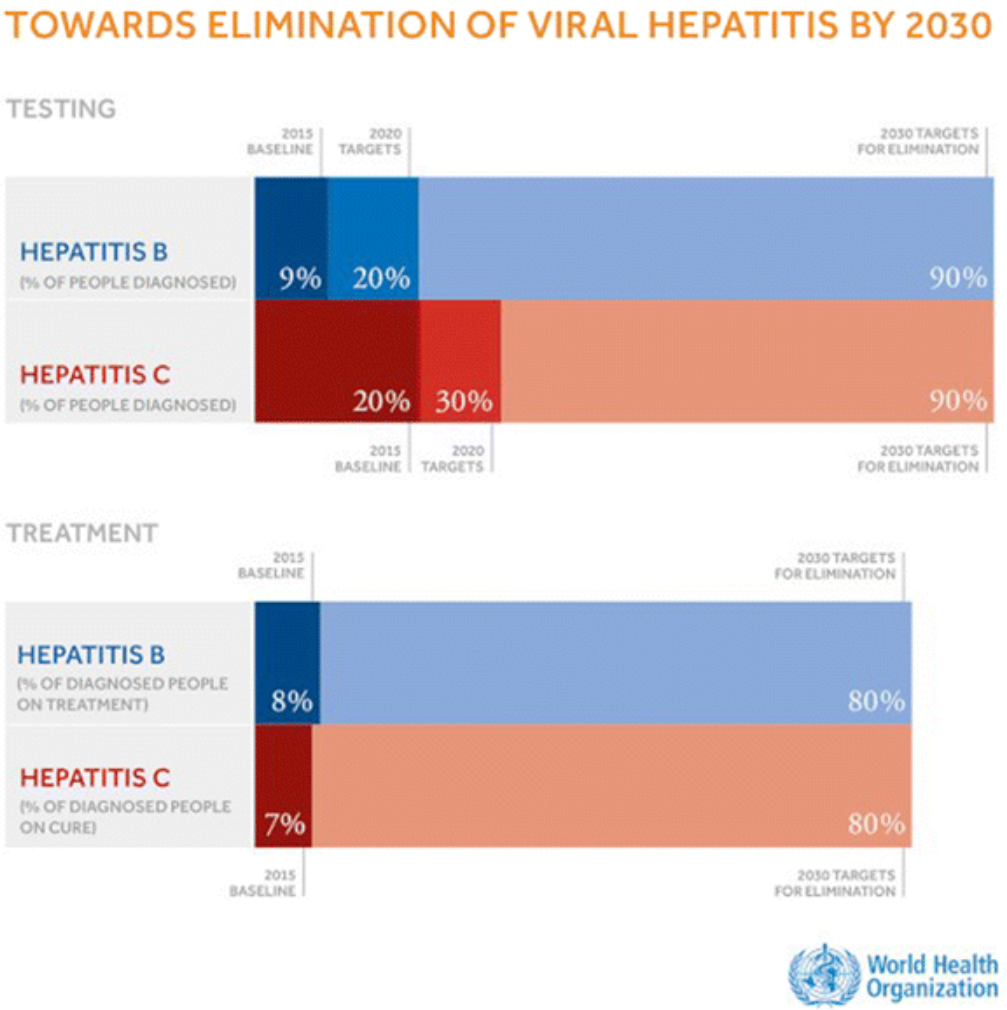
Virally suppressed

HIV Continuum of Care: CT DPH



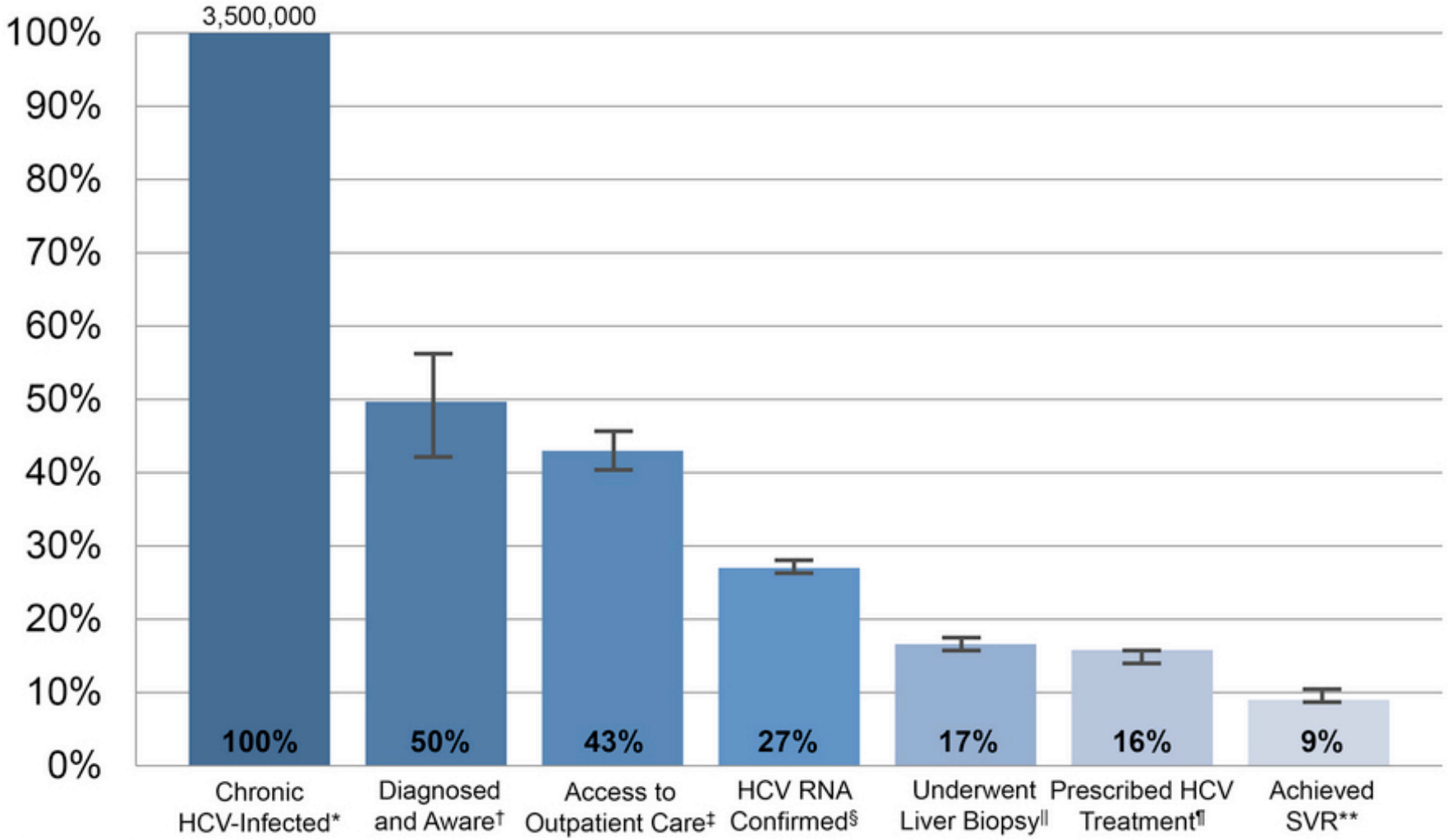


WHO Hepatitis Elimination Goals



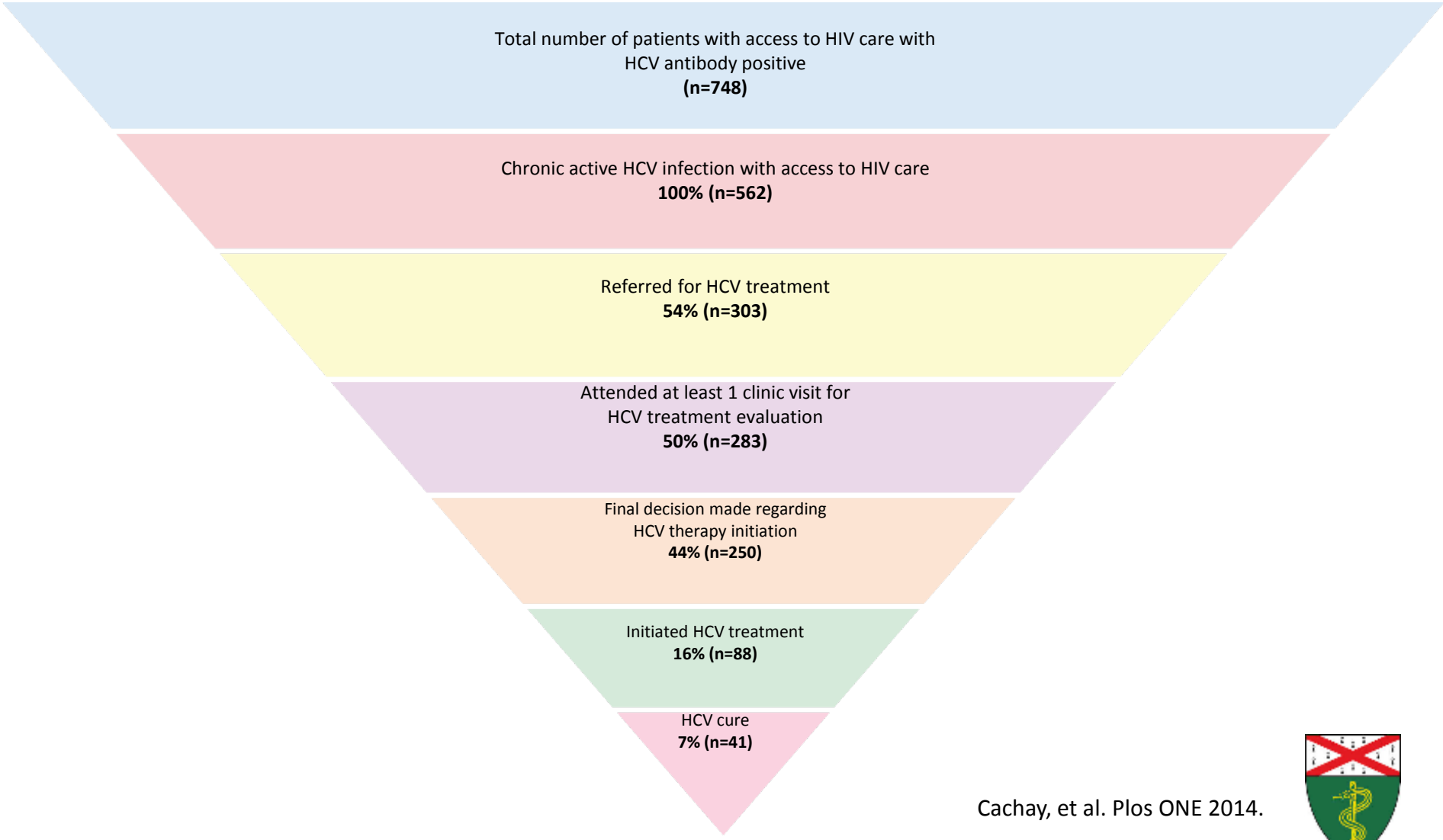
Major simplification and scale-up of hepatitis C treatment is now possible

Treatment Cascade for Chronic HCV: US Model (2014)



Yehia, et al. Plos ONE. 2014

HCV Cascade in PLWH following HCV Diagnosis, UCSD Owen Clinic



Cachay, et al. Plos ONE 2014.

THERE IS NO AVAILABLE HCV CASCADE OF CARE FOR CONNECTICUT

PROJECT ConnQuER

HRSA 047 (Project ConnQuER)

- HRSA SPNS (Special Project of National Significance) project: 3-year project
- “Curing Hepatitis C Among People of Color Living with HIV”
- Two recipients:
  - University of TX, San Antonio
  - Yale University
- GOAL: Create a HCV cascade of care in PLWH in CT

Capacity Model: Barriers

Modifiable Barriers to Accessing HCV Care

System-Level Barriers

- Inadequate Surveillance System
- Lack of HCV Providers
- Lack of Coordinated HCV Services
- Lack of Coordinated Linkage/Referral to SUD & MH services
- Lack of Patient Navigation

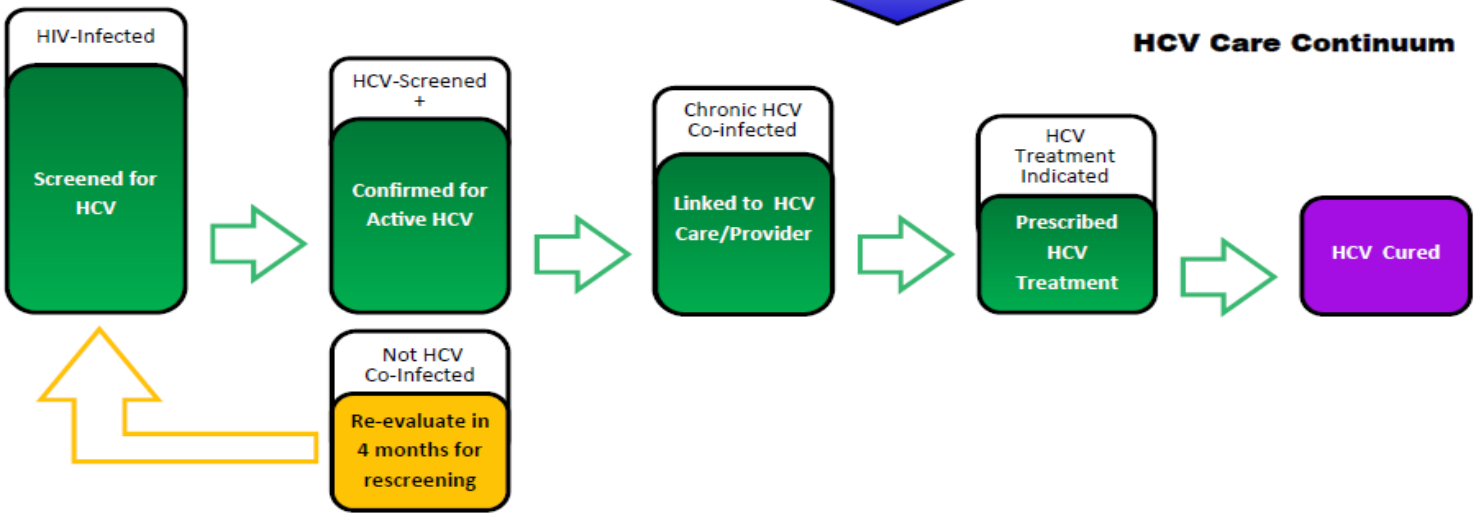
Provider-Level Barriers

- Physician Prejudice
- Lack of HCV Testing/Intake
- Referral Bias
- Lack of Physician Consensus on When to Treat HCV
- Lack of HCV Knowledge

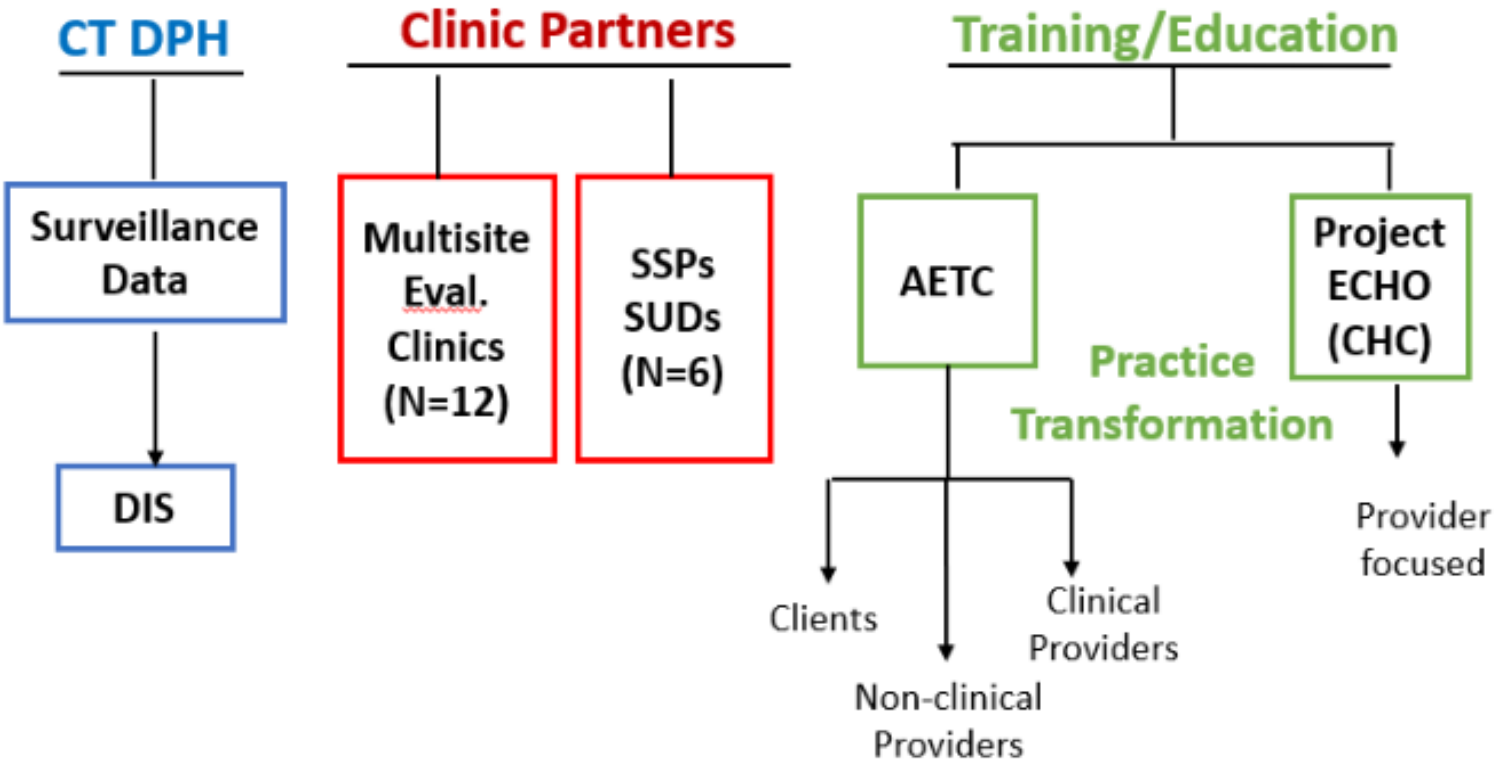
Patient-Level Barriers

- Adherence Issues
- Medical Mistrust
- Patient refusal
- Substance Use Disorder
- Lack of Knowledge regarding Treatment options
- Mental Health Disorder
- Fear of Side Effects

HCV Care Continuum

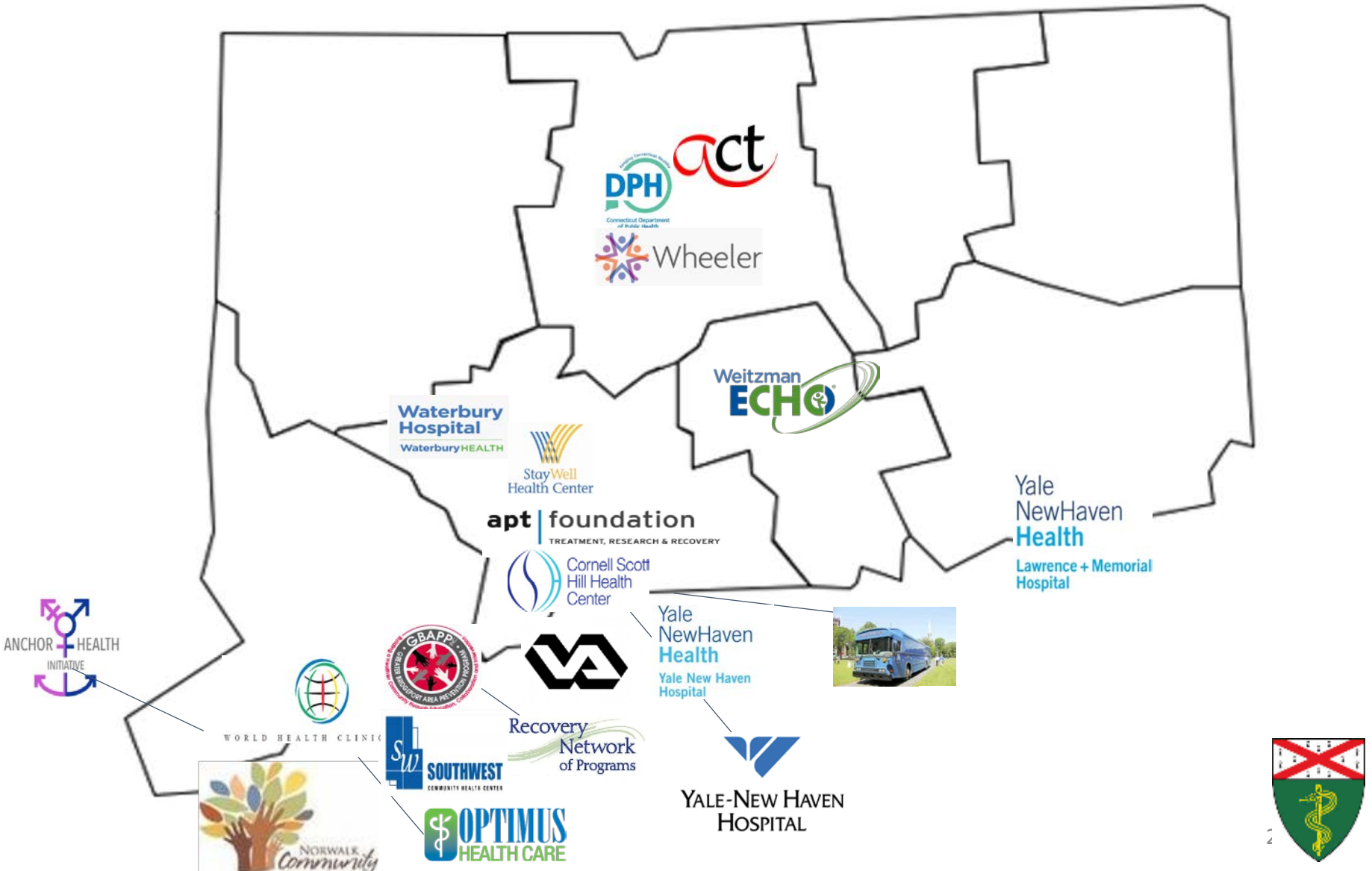


Project Partners



DIS: disease intervention specialists
SSP: syringe service programs
AETC: AIDS Education & Training Center

Map of Connecticut Partners

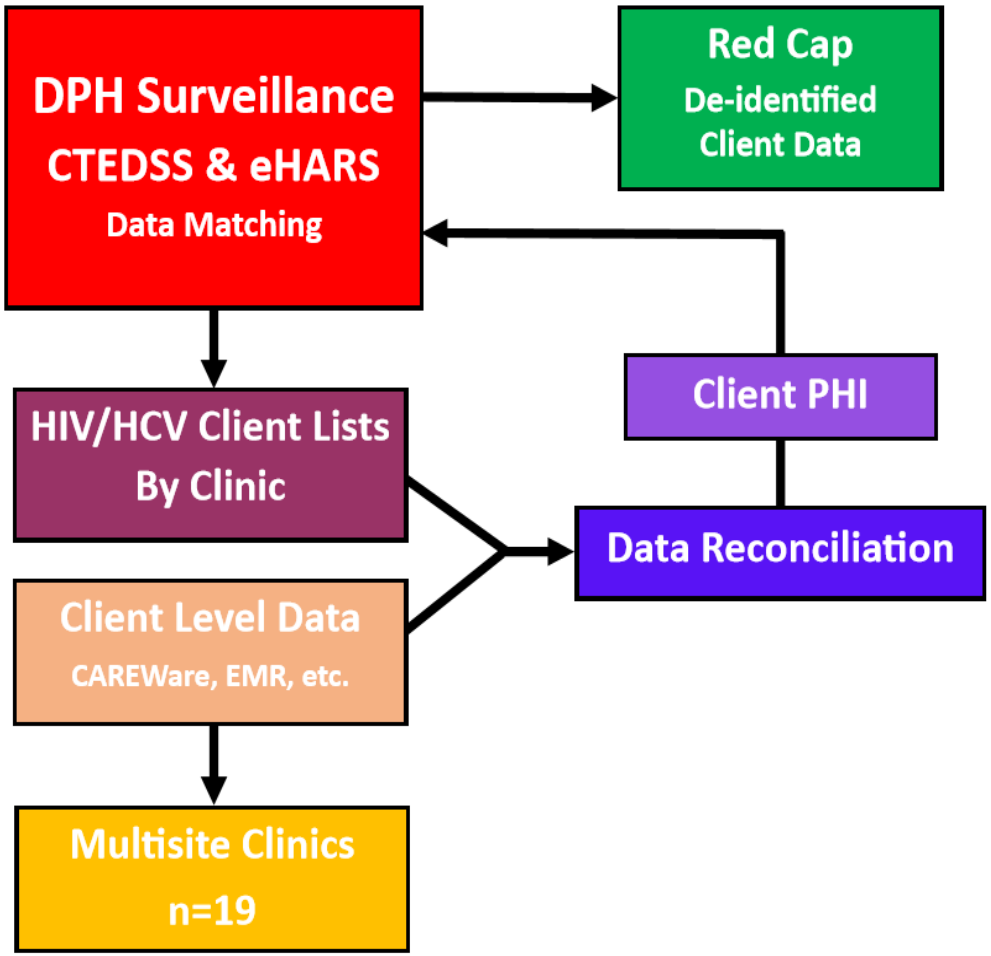


Surveillance Improvements

Data Flow Model

eHARS=Enhanced HIV/AIDS Reporting System

CTEDSS=CT Electronic Disease Surveillance System



HepCCaTS= Hepatitis C Care Cascade Technology System

Barriers to Hep C Surveillance in CT

- CT Statute (reportable labs)
  - All positive Antibodies
  - All RNA positive results
  - All genotype
  - All negative RNA results through Electronic Lab Reporting (ELR) only
- Lack of dedicated staff for manual data entry
- Incomplete ELR

HCV Paper Lab Backlog Efforts

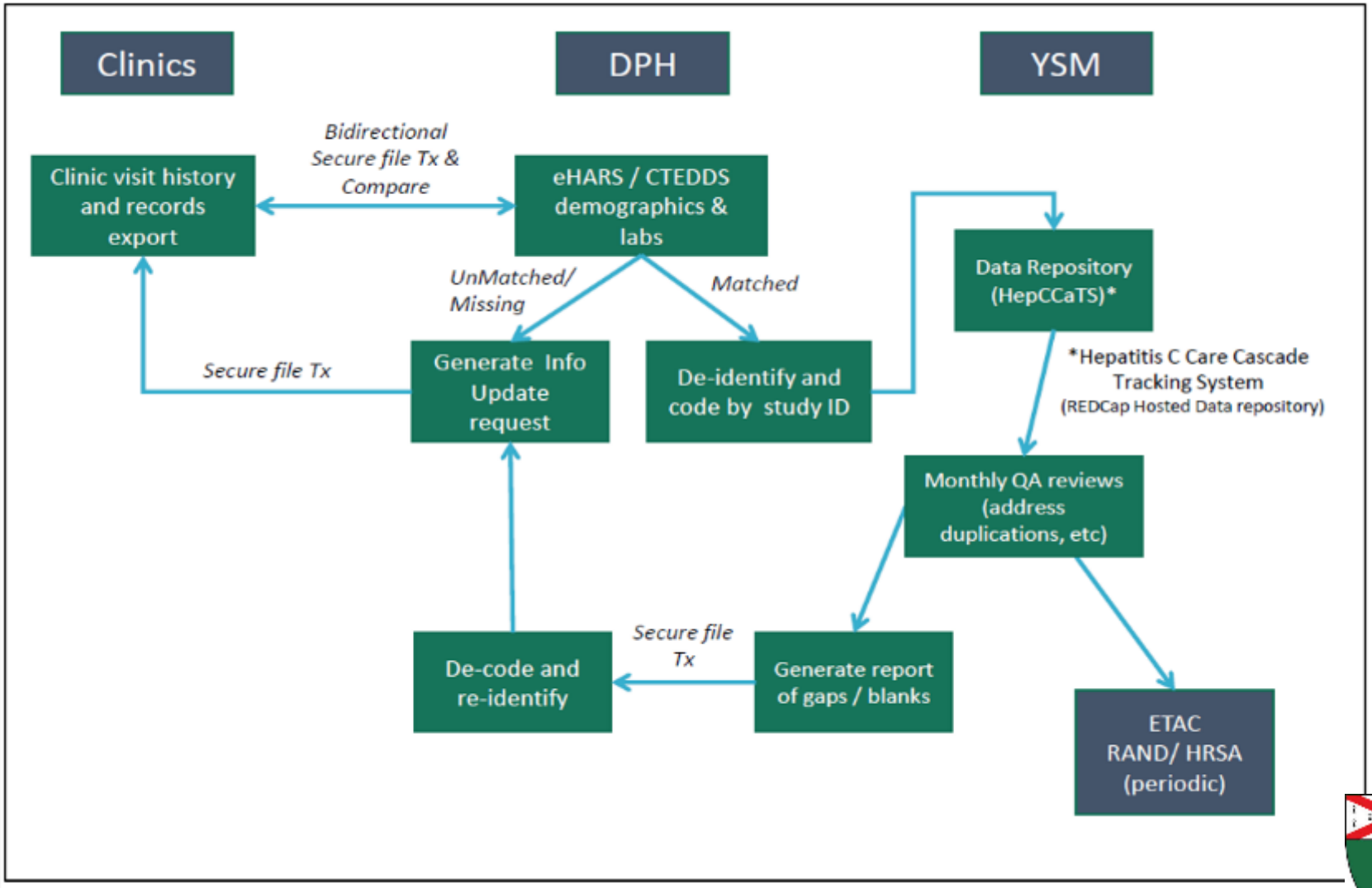
- Update CTEDSS with backlog of paper labs from 2016-2018
- When this effort began in July 2018, there were roughly 20 of these banker boxes full of paper labs that needed to be looked up in the database and entered.

March 2019
(right before temps started)

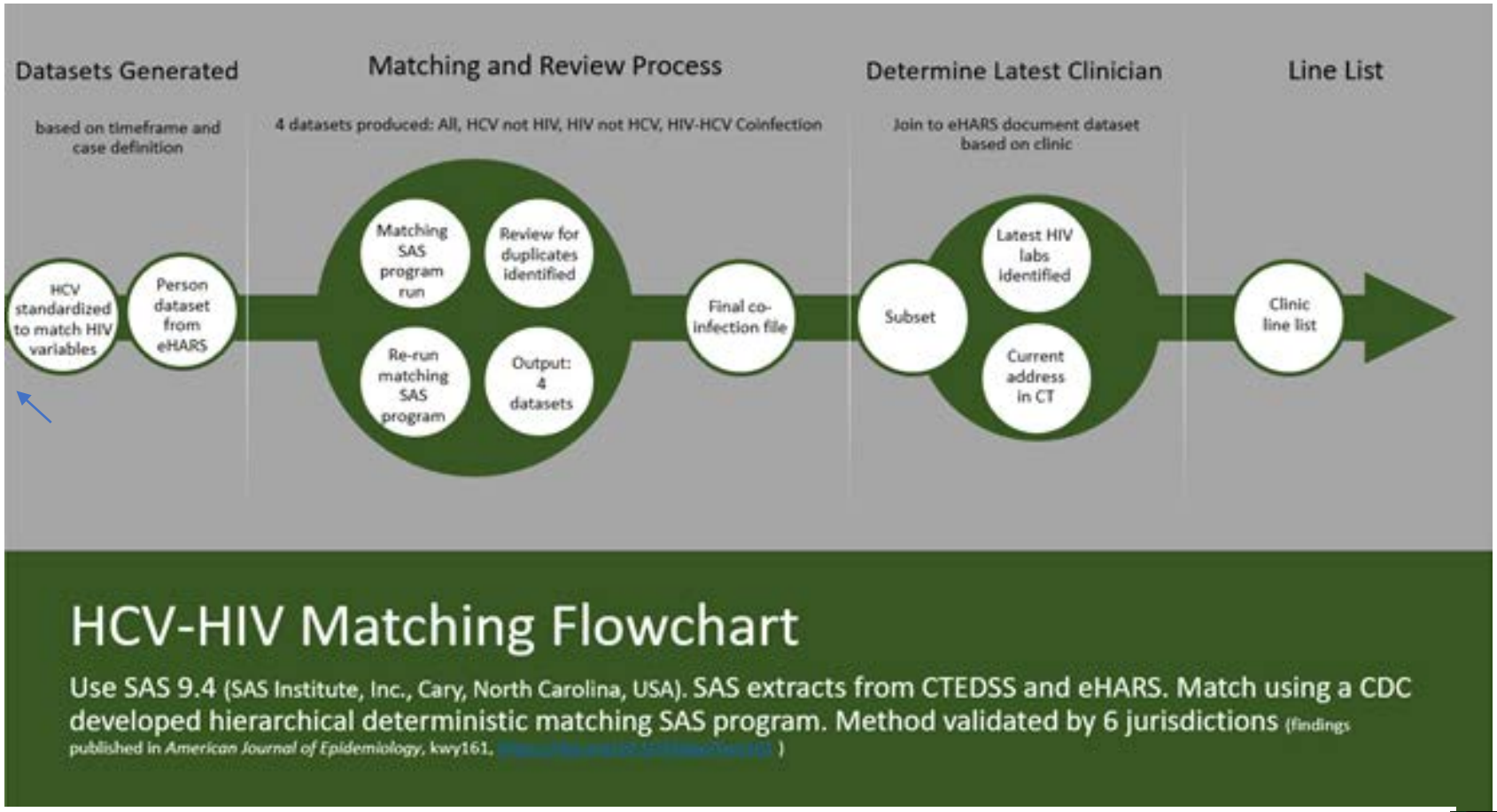
May 2019

June 2019

Constructing the Data Flow Model



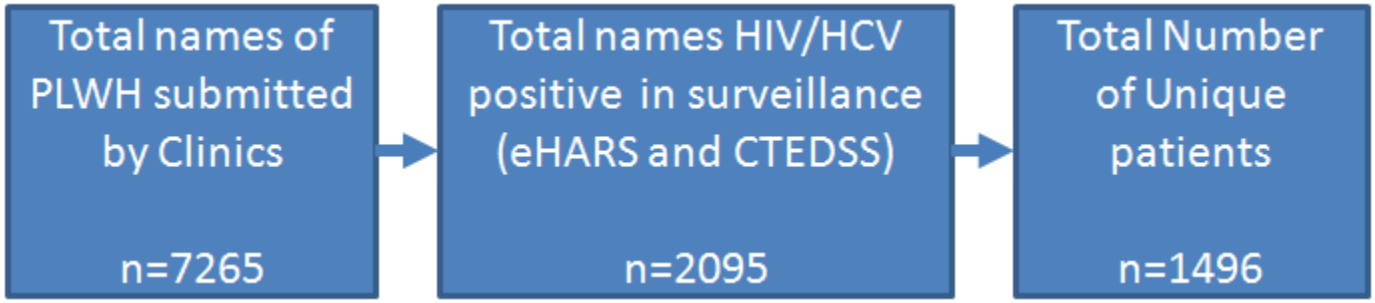
DPH HIV/HCV Data Matching Flowchart



*We created a Master List from all CTEDSS cases (HCV surveillance since 1994) matched to eHARS patients active from 2009-2018. This yielded an estimated 5185 patients Connecticut statewide **potentially co-infected** since 1994.

Multisite Clinics Cascade of Care Preliminary Results

Multi-Site Clinics:
Preliminary Results of Surveillance Matching



- *Cohort:* Patients with HIV-related medical services, then matched to positive HCV screening results
- *Timeframe:* 1/2009-12/2018
- *Participating partners:* 11 clinics

Multi-Site Clinics: 11 Clinics to Date
Preliminary Results of Surveillance Matching

Total Number of Unique patients

n=1496

Coinfected Patient Demographics (eHARS)

Gender:

- 68% Male
- 32% Female

Race/Ethnicity:

- 34% Black
- 28% Hispanic
- 24% White
- 1% Other
- 12% Not Reported

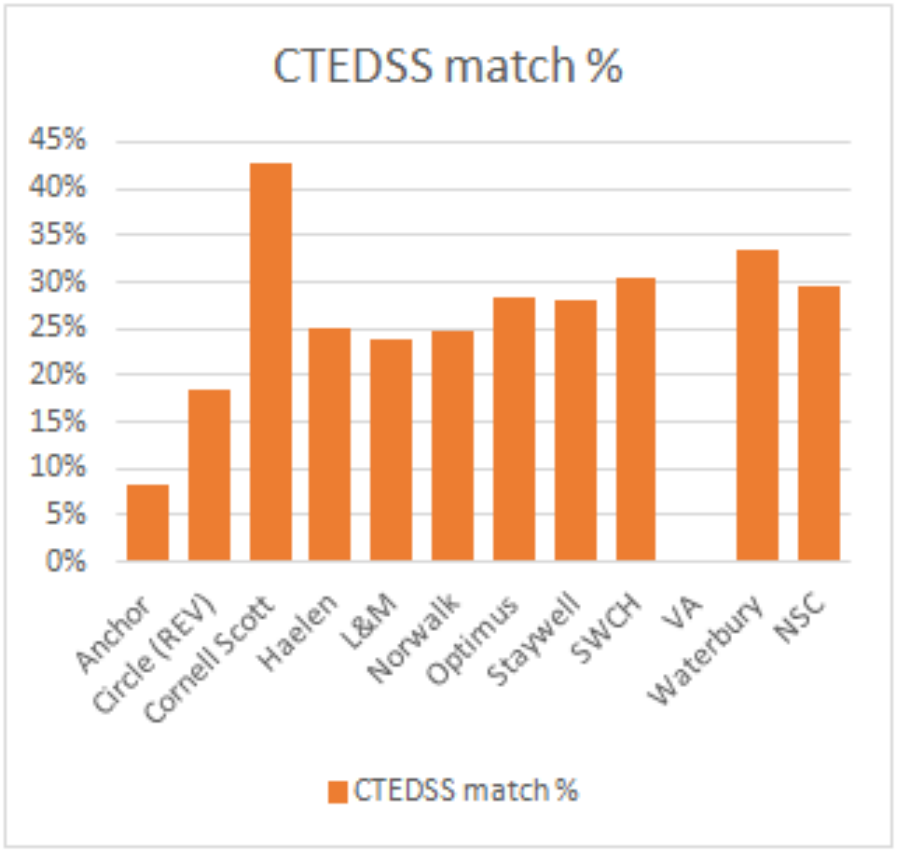
Reported HIV risk factor(s):

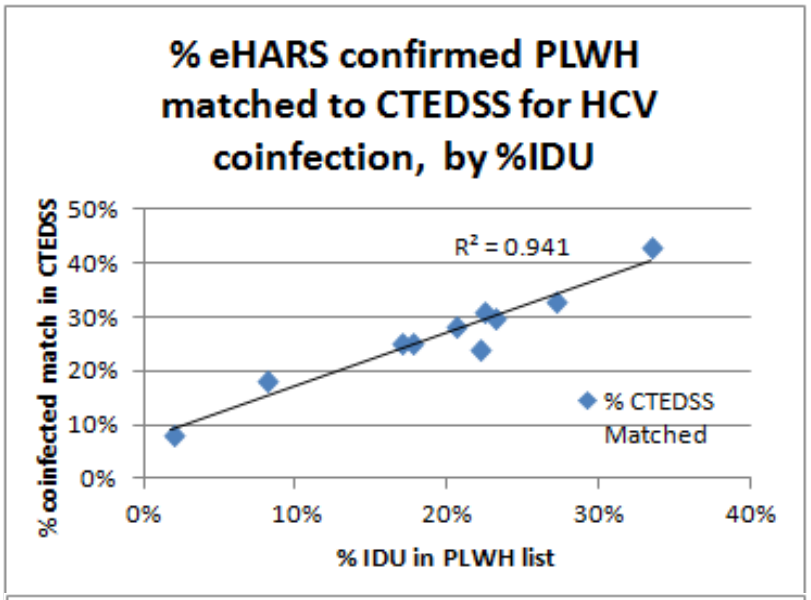
- 75% IDU only; 7% MSM only; 4% MSM/IDU; 11% Hetero; 3% Other

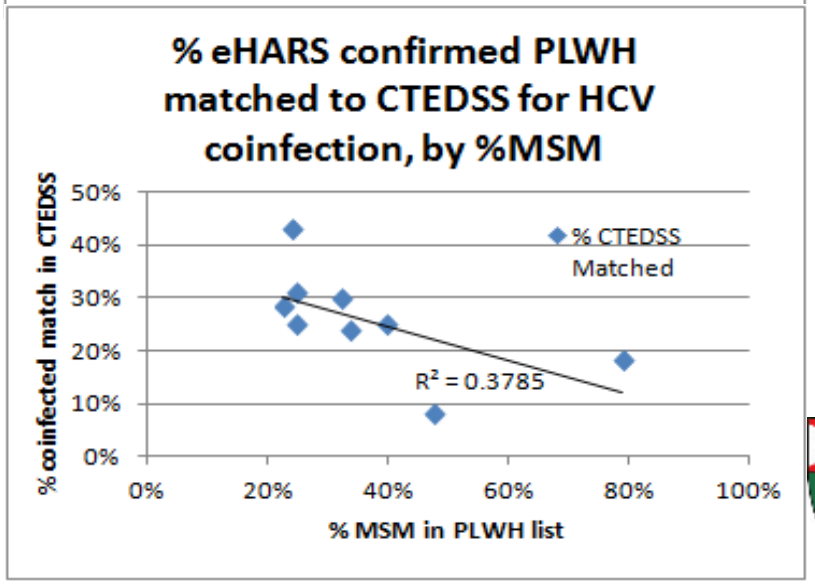
Age:

- Median 60 yo (IQR: 54-64 yo)
- Minimum 23 yo, Maximum 88 yo

CTEDSS Match Findings in Multi-Site Clinics

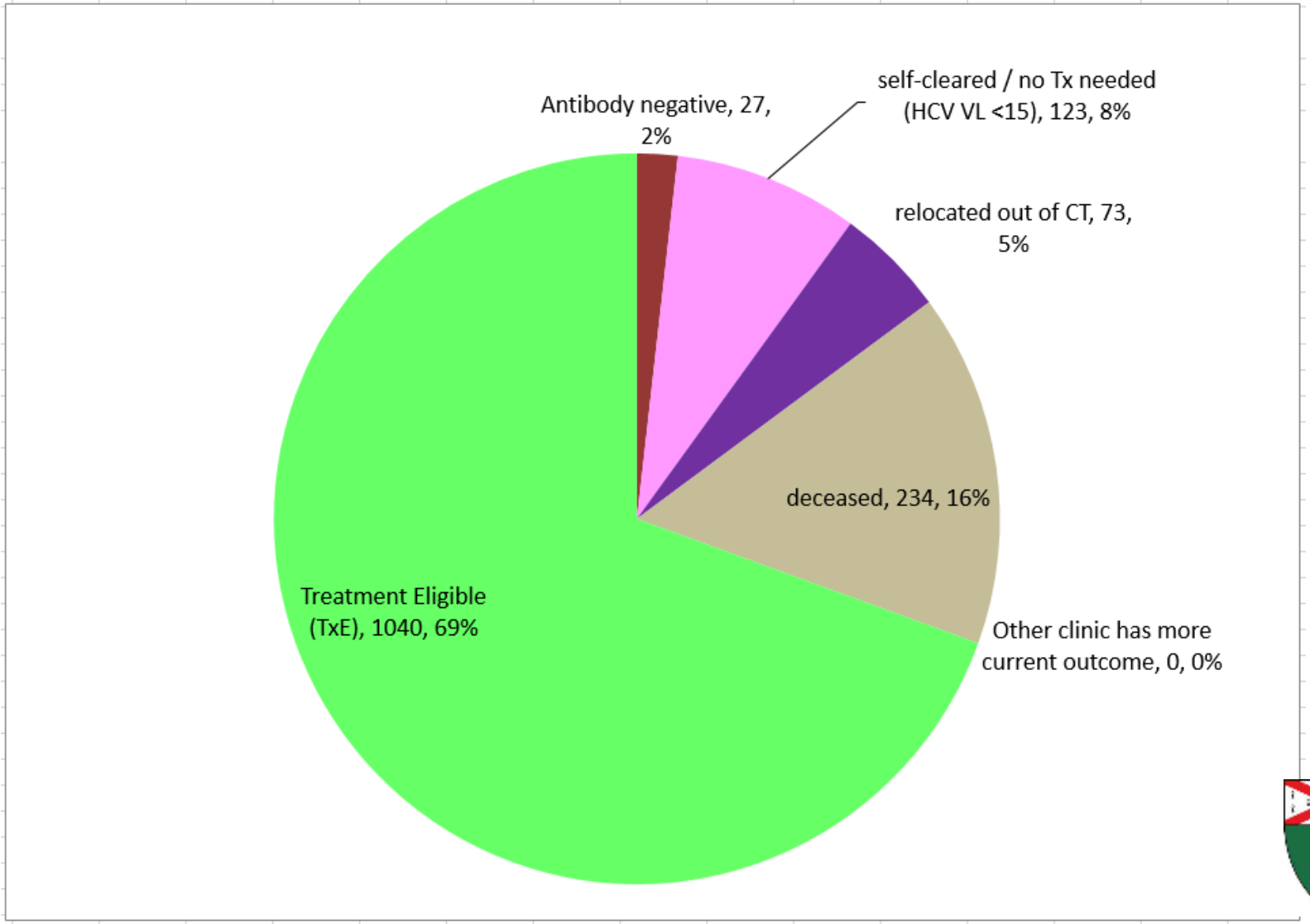






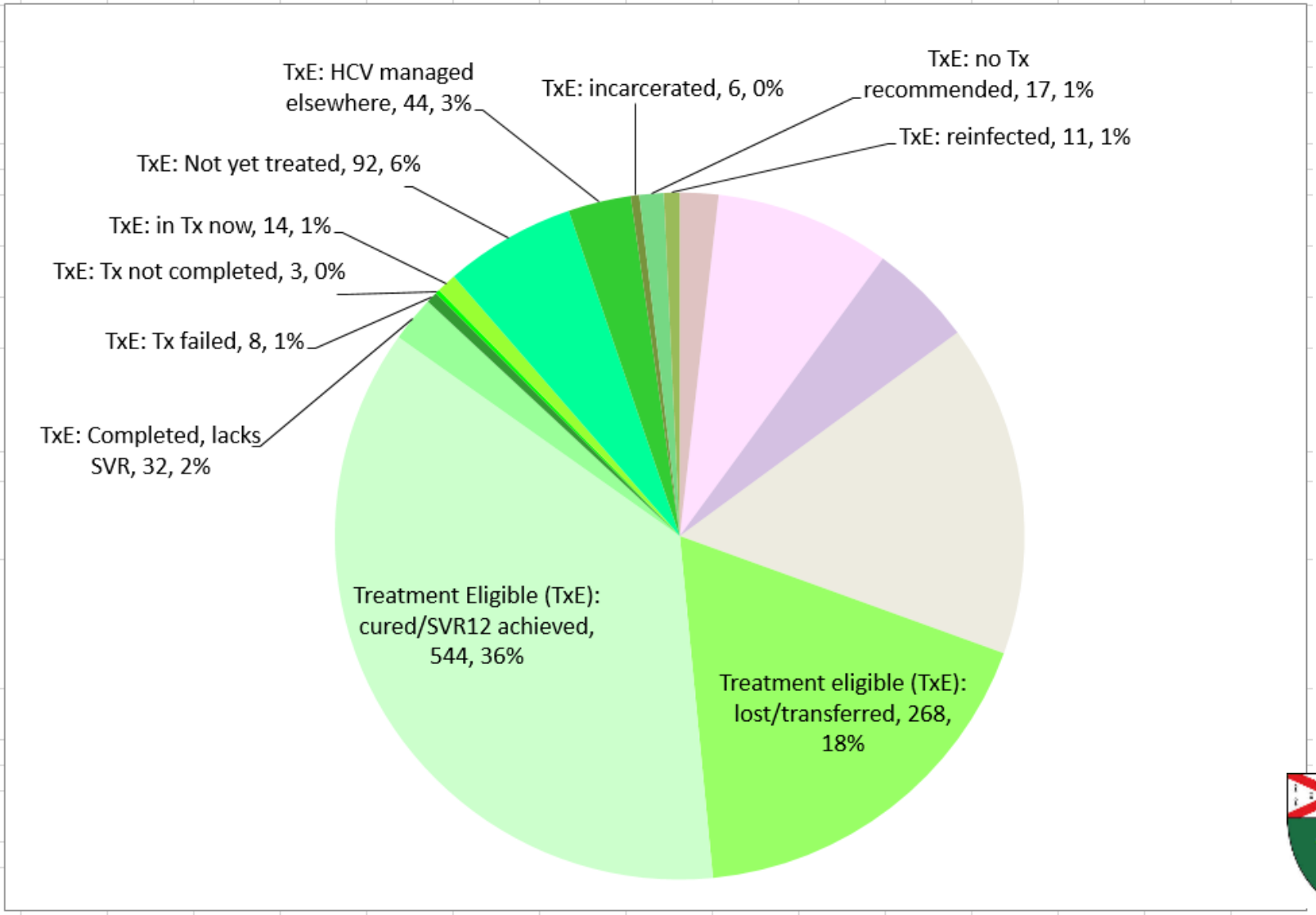
Preliminary HIV/HCV Broad Outcomes

11 clinics, 2009-2018, (n=1496)

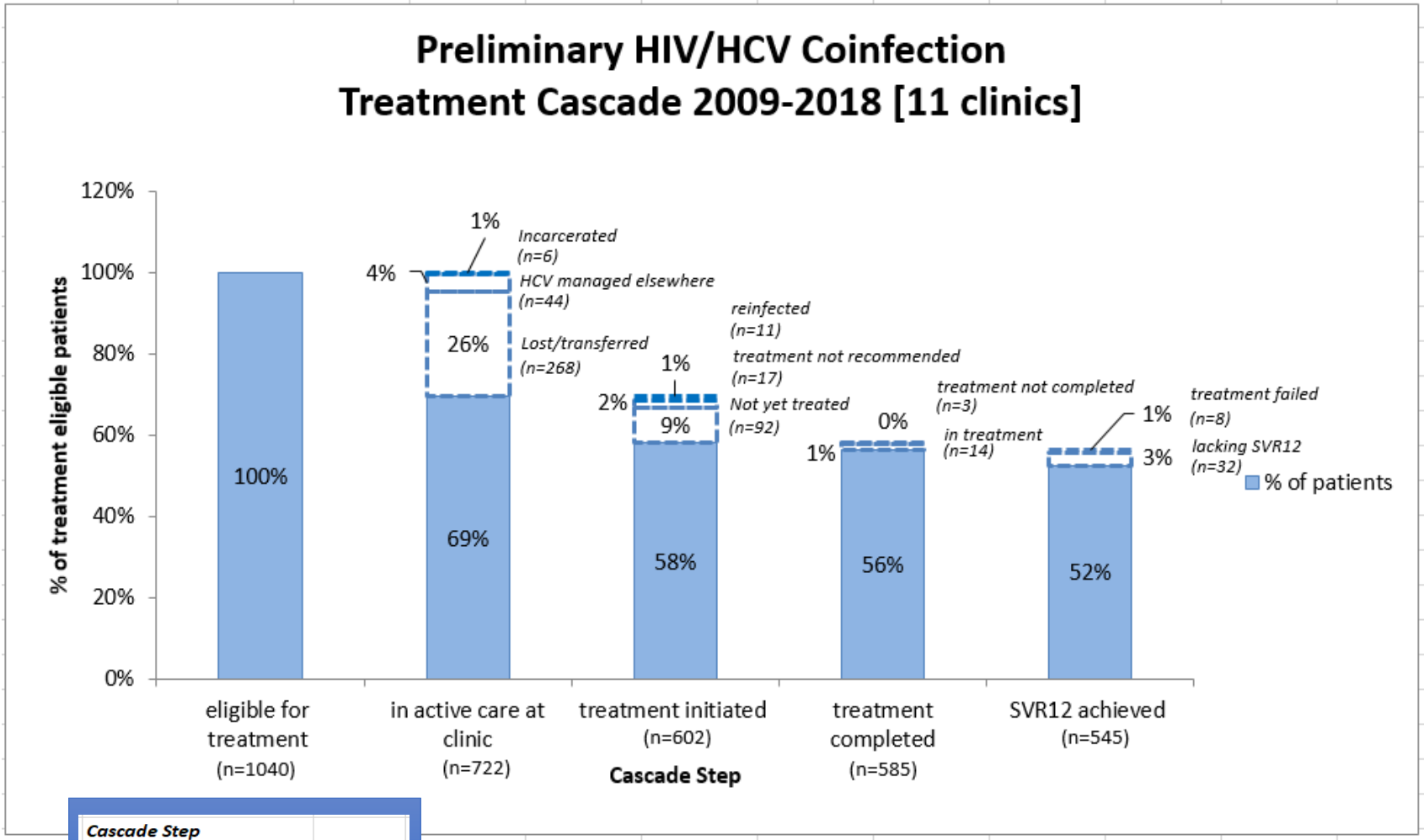


Preliminary HIV/HCV Detailed Outcomes

11 clinics, 2009-2018, (n=1496): Treatment Eligible



HCV Treatment Cascade Baseline for Multi-site Clinics

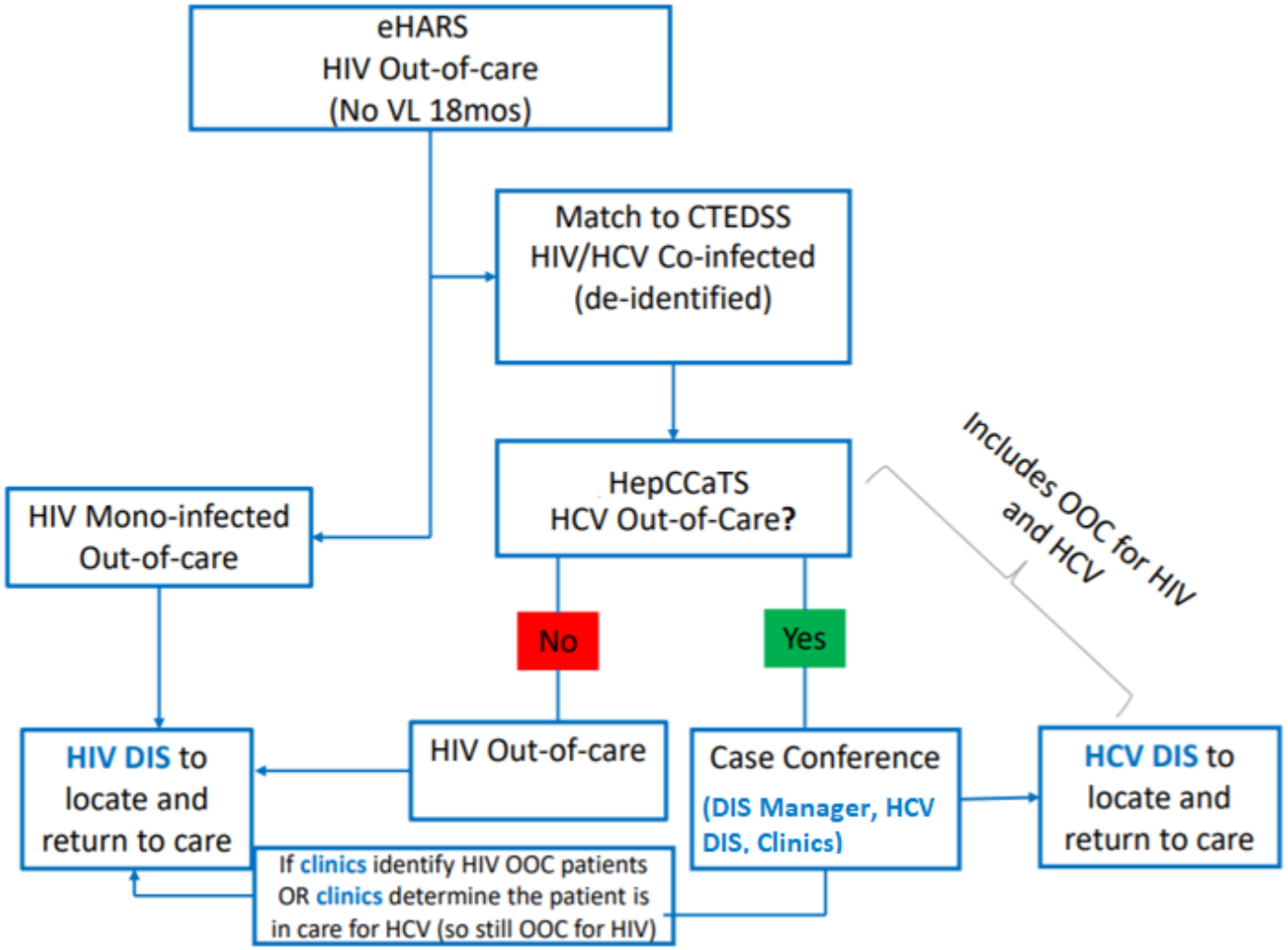


Cascade Step	
clinic PLWH	7265
state matched for HCV	2117
unique patients	1496
eligible for treatment	1040
treatment initiated	602
treatment completed	585
SVR12 achieved	545

Does not include self-cleared, deceased, antibody negative, or relocated out of CT.

Local Evaluation Plan: Looking at HIV/HCV Persons who are out of care?

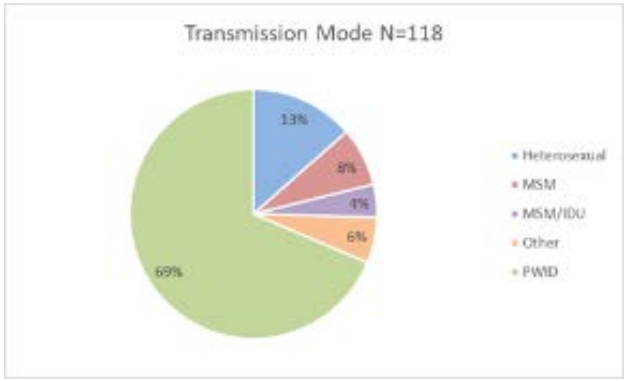
Efficacy of Using Disease Intervention Specialist (DIS) to Re-engage Out of Care HIV/HCV Co-infected Persons in HCV Treatment

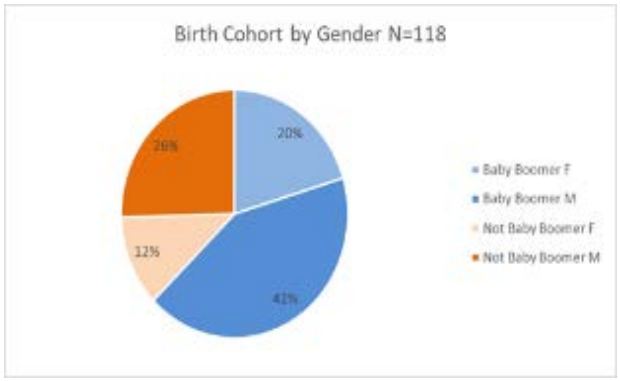


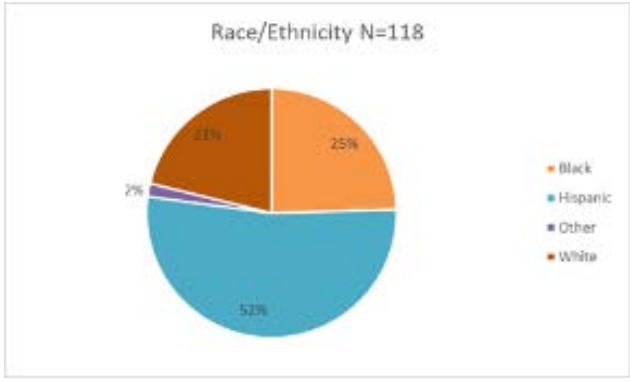
Using Surveillance Data to Determine HCV Outcomes (Rules for Determining if a Patient has SVR, Self-Cleared, or a False Positive)

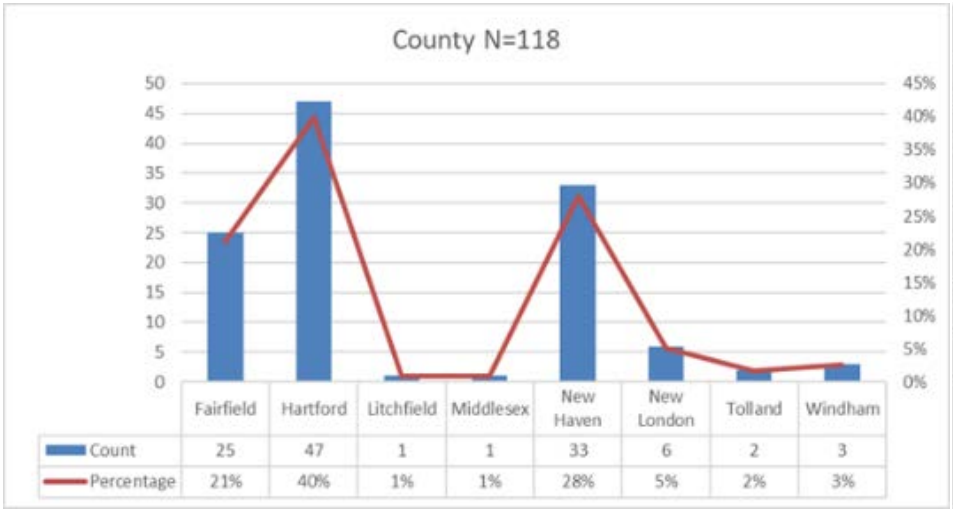
HCV Antibody	HCV PCR	Interpretation
Positive	None reported	Incomplete evaluation
	Negative on same date/specimen	Spontaneous clearance
	Positive on same date/specimen *followed by* 2 or more **positive** PCRs	Chronically infected, untreated
	Positive on same date/specimen *followed by* **negative** PCR >4 weeks but <20 weeks later	Chronically infected, undergoing treatment
	Positive on same date/specimen *followed by* two or more **negative** PCRs with different collection dates	Chronically infected, SVR
	Positive on same date/specimen *followed by* **negative** PCR >20 weeks later	Chronically infected, SVR
	Positive on same date/specimen *followed by* **negative** PCR >20 weeks later *followed* by positive PCR with same or different genotype	Chronically infected, reinfection after SVR
Negative or Positive	Quantitative **negative** *with* qualitative **positive** on same date/specimen	Error or false positive
Negative	N/A	Reporting error

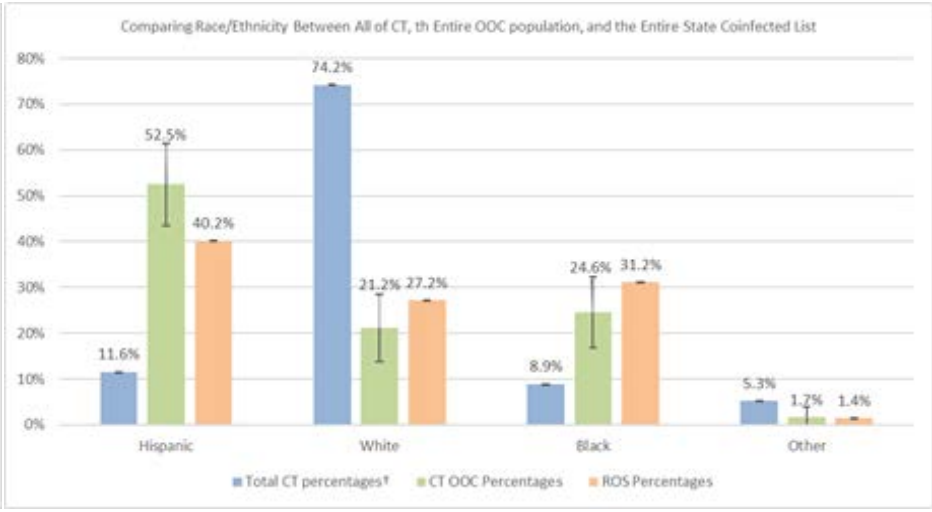
Connecticut: HIV/HCV OOC (18 months)



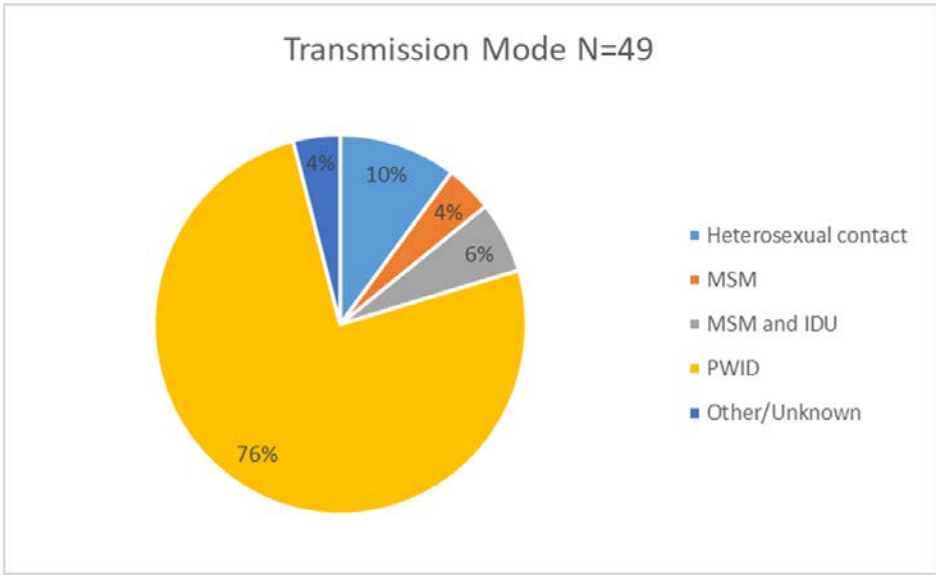


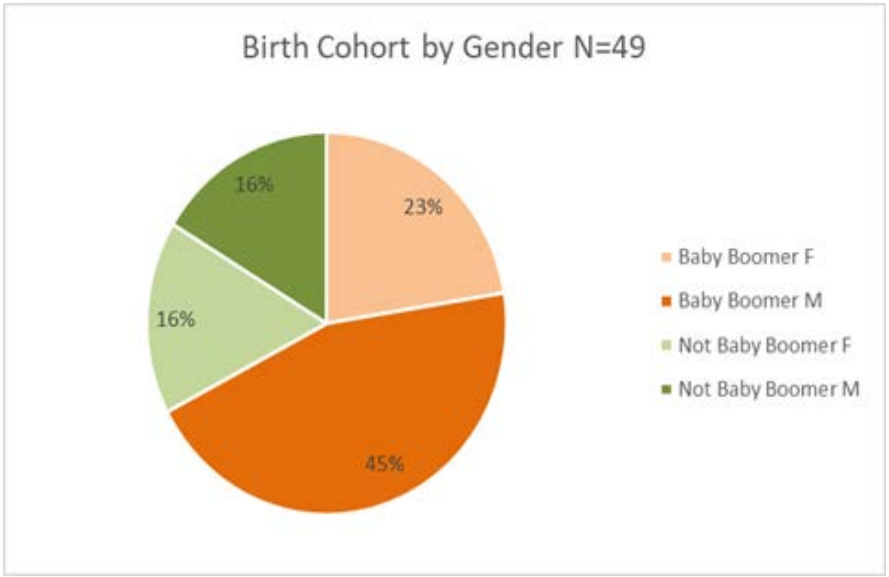


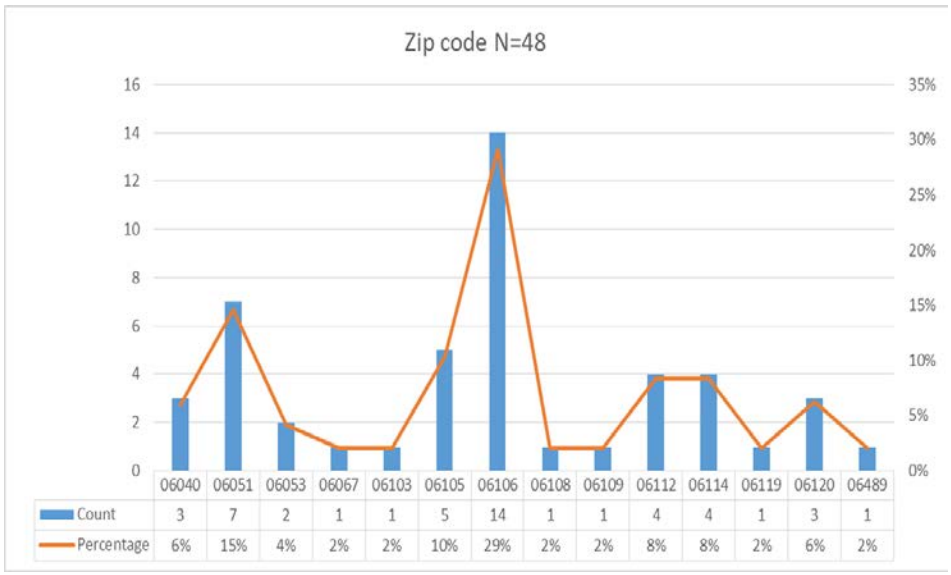


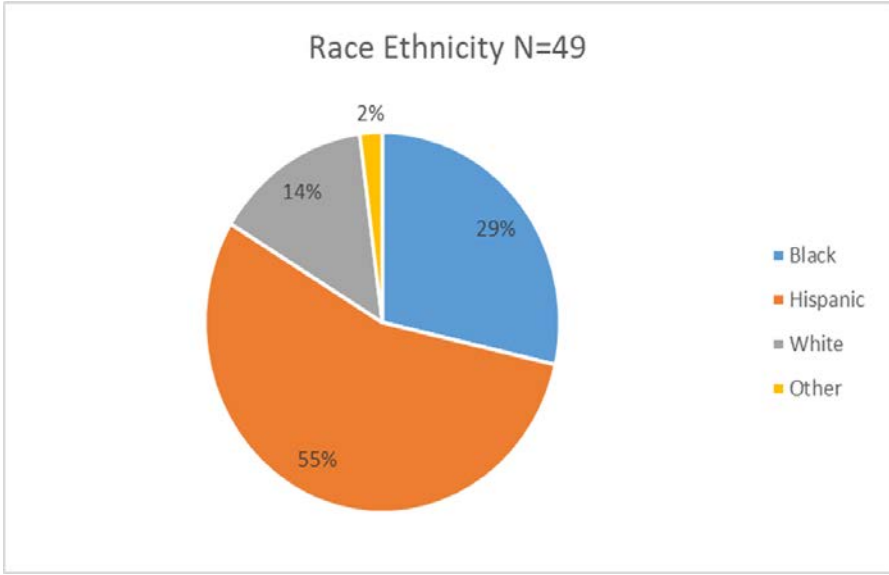


Hartford County: HIV/HCV OOC (18 months)

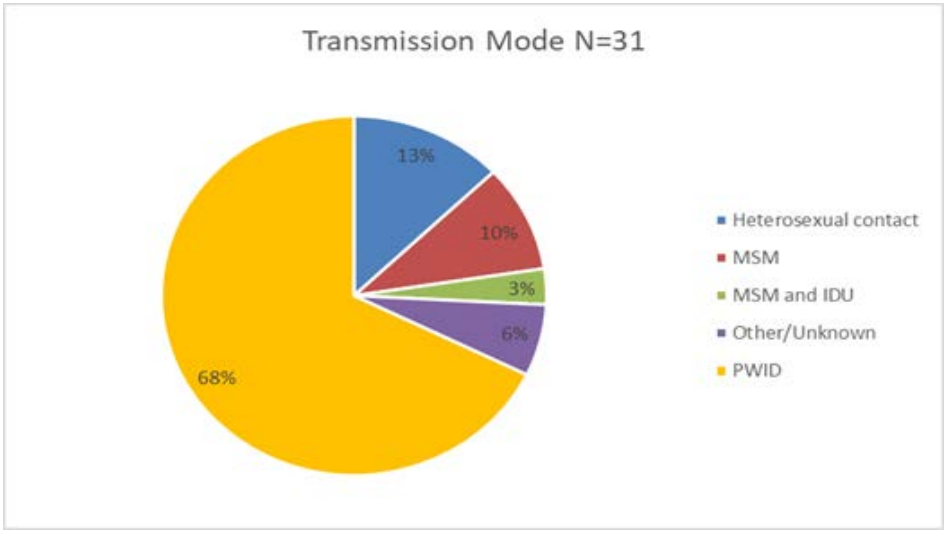


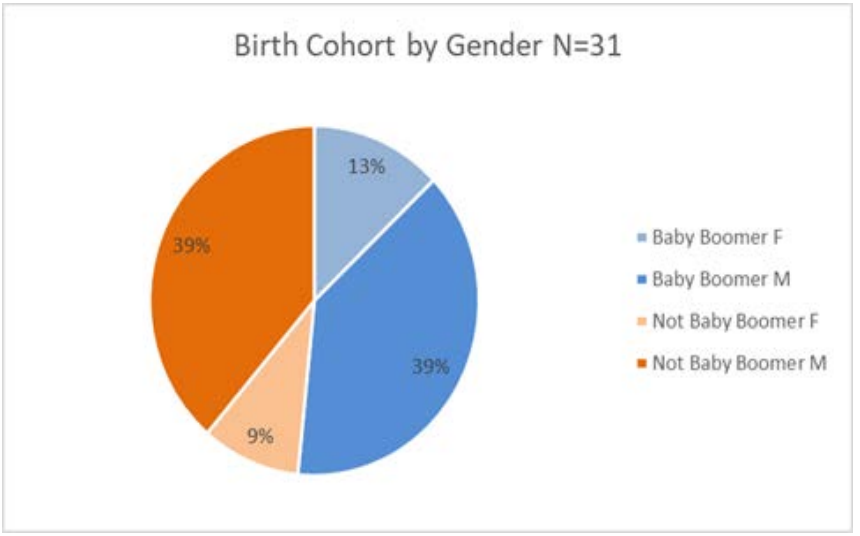


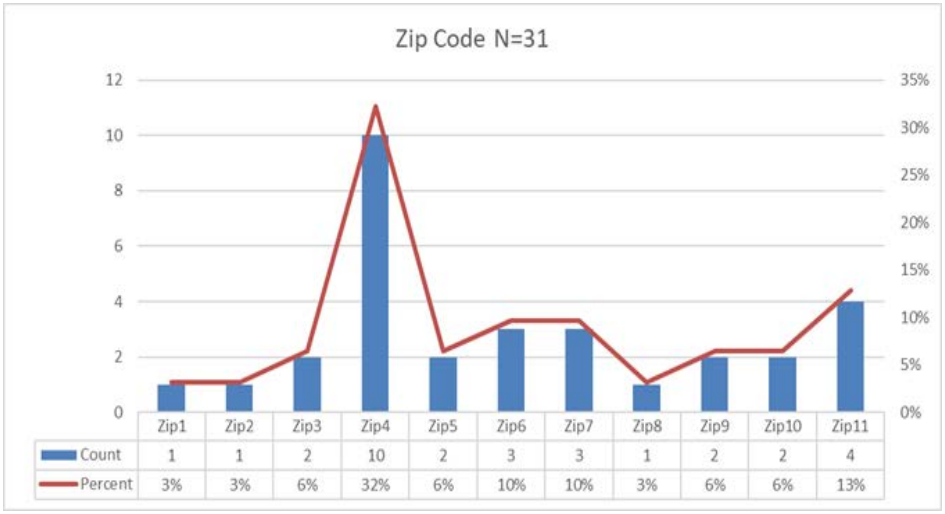


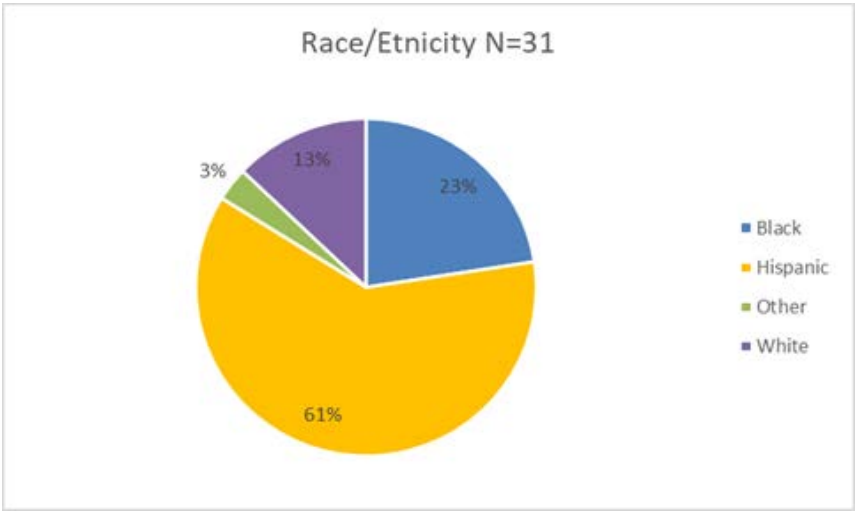


New Haven County: HIV/HCV OOC (18 months)

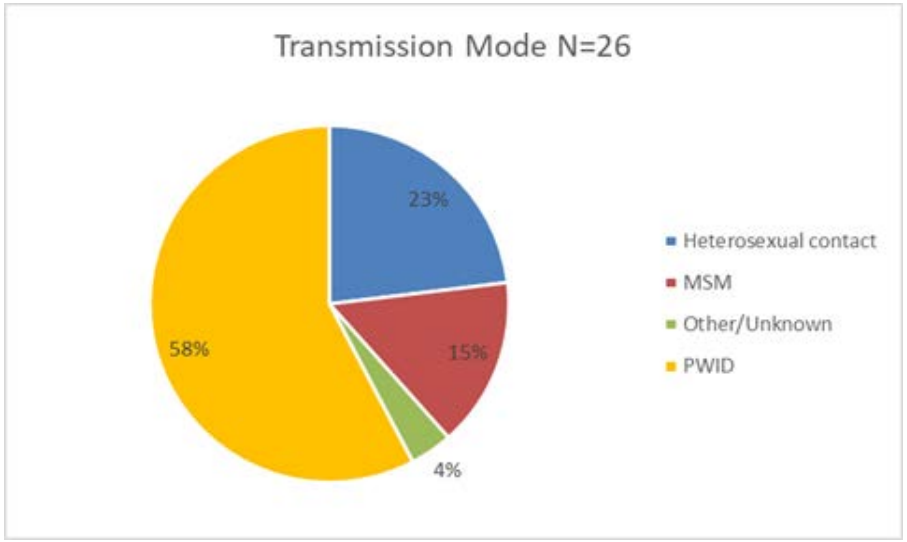


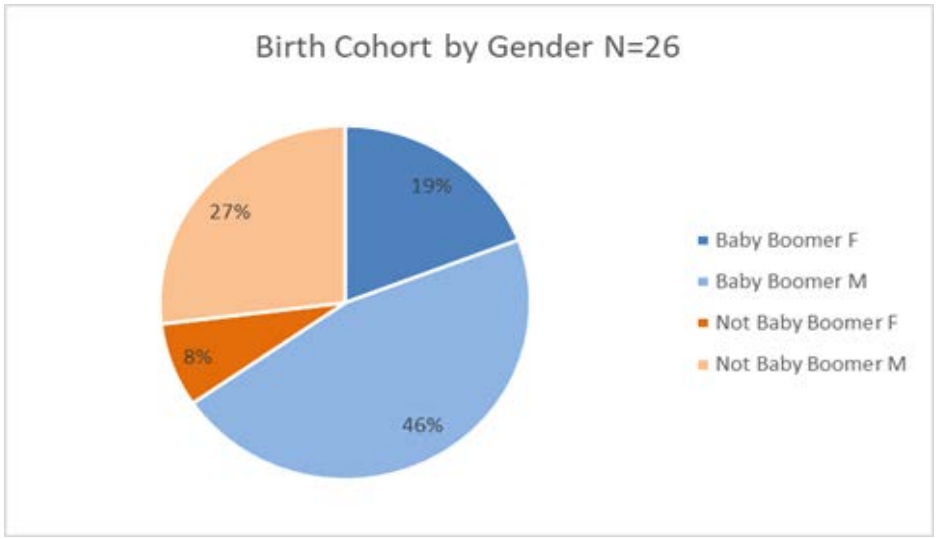


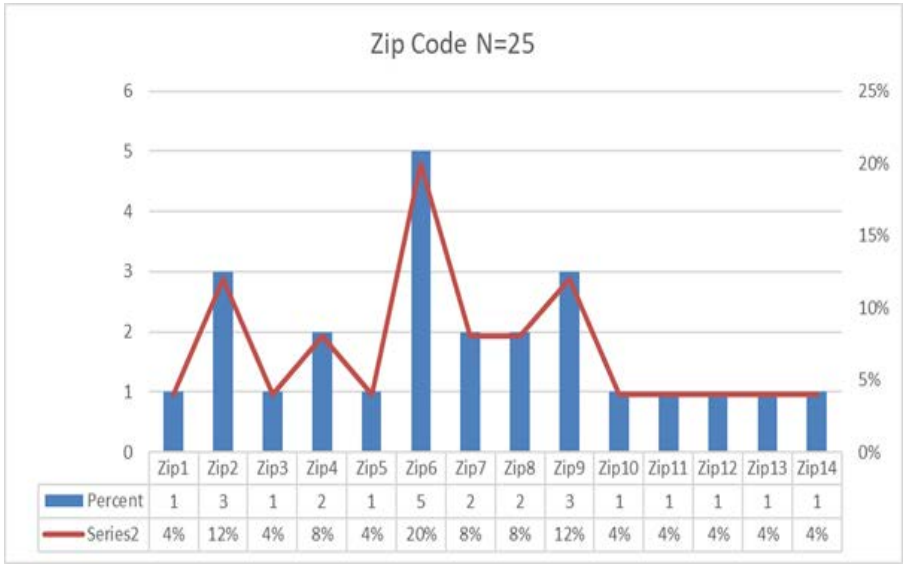


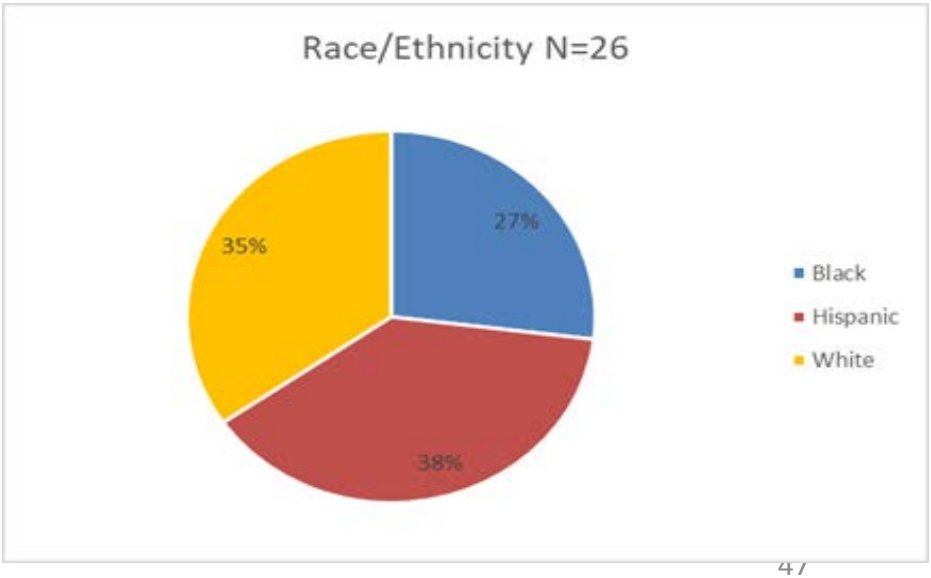


Fairfield County: HIV/HCV OOC (18 months)



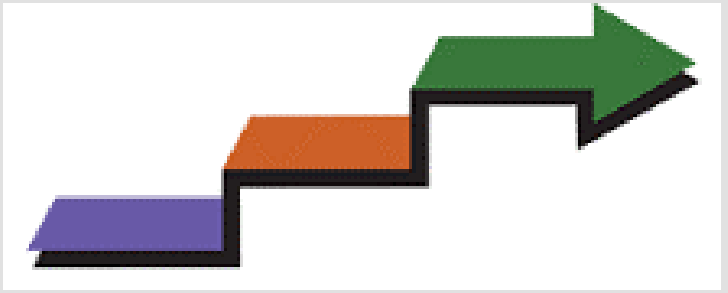






Role of Case Conference

- Will inform on details not available through surveillance alone
- Team:
  - DIS
  - DPH (Deb Gosselin)
  - Individual clinic staff
- Tweak OOC model: 18 months? 12 months?



Next Steps

Advancing Use of Data to Care

- Applying surveillance data to estimate the cascade of care in CT:
  - All HIV/HCV
  - Mono-infected
- Deeper dive into persons who have not been treated
  - Persons who are coming to clinic but not being treated for HCV
  - Persons who are not coming to clinic and/or moving from clinic to clinic
- What service delivery innovations can we use to improve the cascade of care?

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- **Reina Cordero (New Haven)**

Multi-site Clinics

County	Clinic
New Haven	YNHH Nathan Smith Clinic
	Veterans Affairs CT Healthcare System
	Staywell Health Center
	Waterbury Hospital
	Cornell Scott Hill Health Center
	YNHH Healen Center
Fairfield	Circle Care Center
	Optimus Health Care
	Southwest Community Health Center
	Anchor Health Initiative
	Norwalk Community Health Center
New London	Lawrence+Memorial Hospital

SSPs/SUDs

	Program Name	County
Syringe Service Programs	Community Health Care Van	New Haven
	Greater Bridgeport Area Prevention Program	Fairfield
	AIDS CT (ACT)	Hartford
Substance Use Disorder Clinics	APT Foundation	New Haven
	Recovery Network of Programs	Fairfield
	Wheeler Clinic	Hartford

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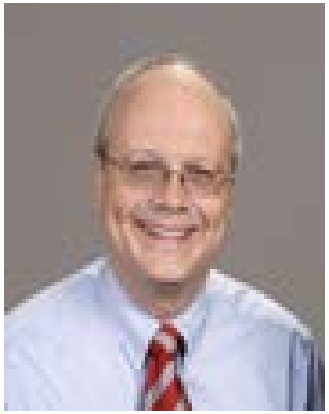

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Questions?