

Introducing Data to Care Approaches for People Co-Infected with HIV and Hepatitis C

20
22

NATIONAL
RYAN WHITE
CONFERENCE
ON HIV CARE & TREATMENT

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Disclosures

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Learning Objectives

At the conclusion of this activity, participants will be able to:

1. Identify strategies for HIV and HCV surveillance data matching and analysis to identify co-infected populations and monitor treatment progress over time.
2. Identify strategies for data sharing and coordination between RWHAP and health departments to conduct outreach and linkage to care for co-infected populations.
3. Identify key considerations for developing an HCV Data to Care strategy.

Agenda

- Introductions
 - HRSA Overview and National Landscape of HIV
 - Yale University of Medicine (Technical Assistance Provider)
 - Mission Analytics Group (Evaluation Partner)
- Jurisdictional Care Cascades
- Outreach and Linkage to Care
- Next Steps

HRSA Overview and National Landscape of HIV

Joanne Hsu, HRSA

Health Resources and Services Administration (HRSA) Overview



Supports more than 90 programs that provide health care to people who are geographically isolated, economically or medically challenged



HRSA does this through grants and cooperative agreements to more than 3,000 awardees, including community and faith-based organizations, colleges and universities, hospitals, state, local, and tribal governments, and private entities



Every year, HRSA programs serve tens of millions of people, including people with HIV, pregnant individuals, mothers and their families, and those otherwise unable to access quality health care

Vision

Optimal HIV care and treatment for all to end the HIV epidemic in the U.S.

Mission

Provide leadership and resources to advance HIV care and treatment to improve health outcomes and reduce health disparities for people with HIV and affected communities.

HRSA's Ryan White HIV/AIDS Program (RWHAP) Overview

- **Provides a comprehensive system of HIV primary medical care, medications, and essential support services for low-income people with HIV.**
- **Funds grants to states, cities, counties, and local community-based organizations to improve health outcome and reduce HIV transmission.**
 - Recipients determine service delivery and funding priorities based on local needs and planning process.
- **Provided services to nearly 562,000 people in 2020—more than half of all people with diagnosed HIV in the United States.**
- **89.4% of RWHAP clients receiving HIV medical care were virally suppressed in 2020, exceeding national average of 64.6%ⁱ.**

Viral Hepatitis National Strategic Plan, 2021- 2025

VIRAL HEPATITIS

National Strategic Plan A Roadmap to Elimination

for the United States | 2021-2025



Federal Policies, Guidelines, and Affinity Groups

Hepatitis Prevention: Access to Sterile Syringes

- CDC Program Guidance for Implementing Certain Components of Syringe Services Programs, 2016
- HRSA Specific Implementation Guidance to Support Certain Components of Syringe Services Programs, 2016

Hepatitis Testing Guidance

- CDC Hepatitis C Testing Recommendations
- HRSA's Bureau of Primary Health Care Hepatitis: Action Steps and Guidelines for Health Centers.
- Department of Veterans Affairs' Viral Hepatitis for Health Care Providers includes information on A, B, and C screening and treatment.

Hepatitis C Medicaid Affinity Group: Supporting State-Generated Solutions to Eliminating HCV

- AR
- ID
- IN
- KY
- MI
- NH
- WA
- WV
- WI

HRSA HAB Hepatitis C Efforts



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Home

HIV/HCV Co-infection: An AETC National Curriculum

The goal of this curriculum is to provide an evidence-based online curriculum for healthcare providers and trainers of healthcare providers to increase their knowledge on human immunodeficiency virus (HIV) and hepatitis C virus (HCV) coinfection among people of color in the United States and its territories. Topics covered include prevention, screening, diagnosis and treatment recommendations as well as barriers and other co-factors that may impede optimal treatment outcomes for co-infected people of color.



A team of AETC Program faculty and staff identified six core competencies for providers treating coinfecting people with HIV. Within each topic area, there are multiple lessons.

To earn **free continuing education credits** (CME or CNE), you must register and complete the course modules (30 minutes and 0.5 CEUs per module) on the [Rutgers University Center for Professional Development](#) website.

If you are not interested in receiving CE credits, you may view all course module content on this website.

PROMOTIONAL POSTCARD

Course Modules

- Curriculum Home
- About The Curriculum
- Section 1: Epidemiology
- Section 2: Prevention
- Section 3: Screening, Testing, and Diagnosis
- Section 4: HCV Treatment
- Section 5: Recommendations for Subpopulations of HIV/HCV Co-infected Persons
- Section 6: Addressing Barriers for Co-infected People of Color
- HIV/HCV Co-infection Resources
- Tell us about yourself with this quick survey

Ryan White HIV/AIDS Program Part F Special Projects of National Significance (SPNS)

- Curing Hepatitis C among People of Color Living with HIV, 2017- 2022
- Jurisdictional Approach to Curing Hepatitis C among HIV/HCV Coinfected People of Color, 2016-2019

Yale Cooperative Agreement Technical Assistance Provider

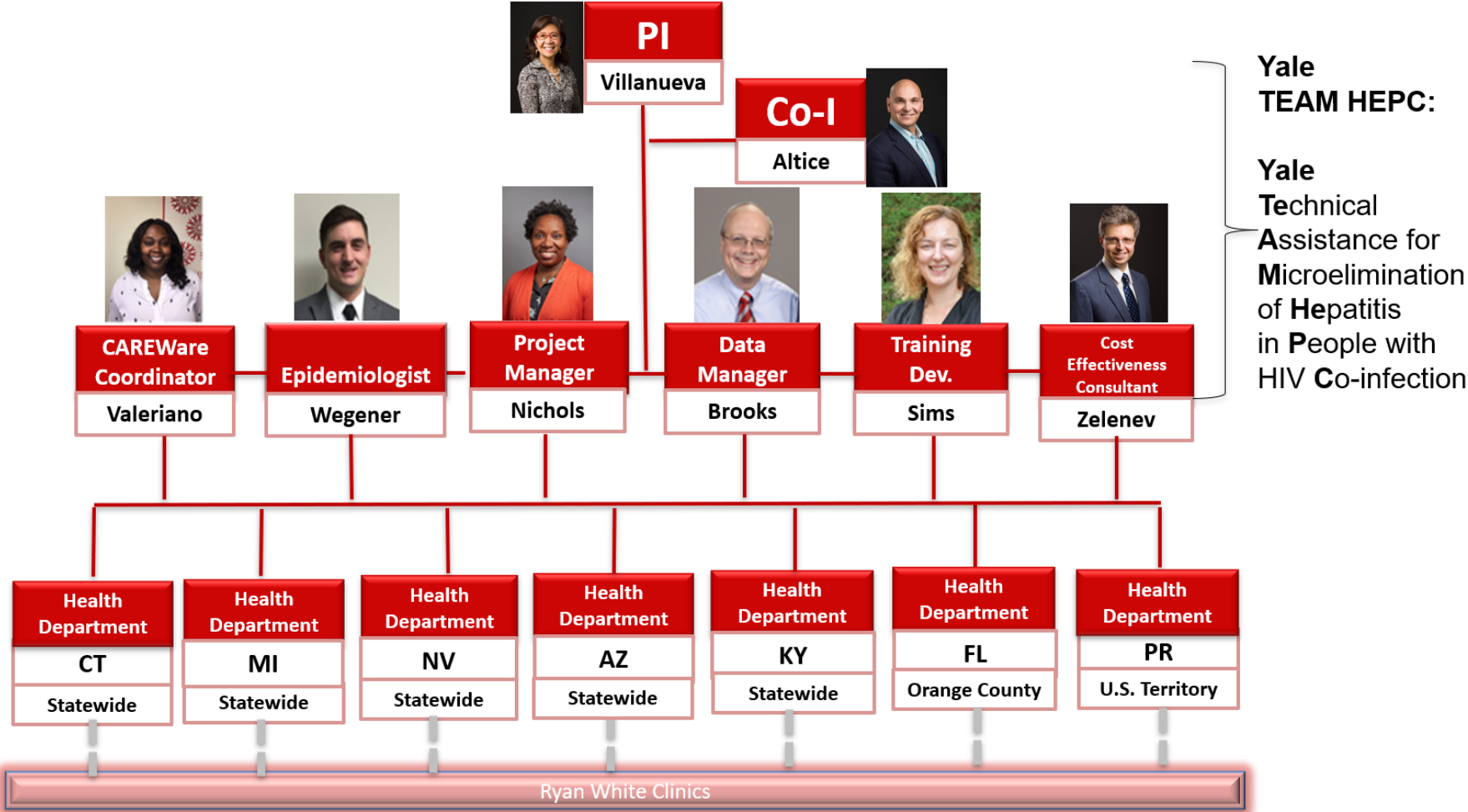
HRSA-funded grant 2-year project: 9/1/2020 – 8/31/2022

One awardee: Yale University School of Medicine

Goals:

- Create sustainable methodologies for jurisdictions to create their own HCV cascades of care (CoC) for HIV/HCV co-infected persons
- Improve existing collaboration between jurisdictional hepatitis C (HCV) surveillance systems and RWHAP care providers
- To link people with HCV within the RWHAP to care, by leveraging existing public health surveillance and clinical data systems

Yale Project Organizational Chart



Mission Analytics Group Evaluation Partner

- A woman-owned small business based in San Francisco
- Mission provides technical assistance (TA), policy analysis, and program evaluation
- Clients include local and state agencies as well as the federal government
- Mission has worked with the HIV/AIDS Bureau for more than a decade, including RSR/ADR TA, resource allocation, documenting best practices including oral health, and project evaluations.

Mission Contract

- Three-year contract awarded to Mission Analytics Group
- Purpose
 - Design, pilot, and conduct evaluation of the two-year cooperative agreement to demonstrate the achievement and effectiveness of the project's objectives and activities
 - Disseminate findings on behalf of HRSA

Evaluation Goals

1. Assess the impact of the initiative
2. Determine the effectiveness of program activities
3. Develop an understanding of jurisdictions' successes and challenges at different stages in the process
4. Identify impact of activities and Yale technical assistance
5. Collect information about the costs of implementation to guide future jurisdictions considering replication

Evaluation Approach

- Mixed methods approach
- Primary analyses
 - Interviews with jurisdictional staff
 - Jurisdictional surveys
- Secondary analyses
 - TAP monthly meetings with jurisdiction
 - TAP Community of Practice
 - Data submitted by jurisdictions to the TAP include the cure cascade, clinic case conferencing and cost data

- **Jurisdictional Care Cascades**
 - Jurisdiction strategies and Yale's technical assistance to create baseline viral clearance cascades (Yale)
 - Jurisdictional preliminary data (Yale)
 - Models and lessons learned (Mission)
- **Outreach and linkage to Care**
 - Processes for data tracking and reporting (case conferencing tool) (Yale)
 - Preliminary data (jurisdiction presentation or Yale overview)
 - Models, lessons learned (Mission)
- **Next Steps**

Contact Information

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Learn more about our program at our new website:

ryanwhite.hrsa.gov



Sign up for the Ryan White HIV/AIDS Program Listserv:

[https://public.govdelivery.com/accounts/USHHSRSA
/signup/29907](https://public.govdelivery.com/accounts/USHHSRSA/signup/29907)

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Jurisdictional Care Cascades

Yale University School of Medicine

99.9% of People Suffering From HCV Can Be Cured Through Pangenotypic Regimens



Feld. NEJM. 2015;373:2599. Foster. NEJM. 2015;373:2608. Zeuzem. NEJM 2018;378:354. Puoti. J Hepatol. 2018;69:293. 5. Bourliere. NEJM. 2017;376:2134. Bourliere. Lancet Gastroenterol Hepatol. 2018;3:559. Wyles. J Hepatol. 2018;68:523.



Slide credit: clinicaloptions.com

DVH's 2025 Strategic Plan



Our Vision

A world without viral hepatitis



Our Mission

To end the viral hepatitis epidemics through leadership in science and public health practices

- Goal 1: Prevent New Viral Hepatitis Infections
- Goal 2: Improve Viral Hepatitis–Related Health Outcomes of People with Viral Hepatitis
- Goal 3: Reduce Viral Hepatitis–Related Disparities and Health Inequities
- Goal 4: Improve Viral Hepatitis Surveillance and Data Usage
- Goal 5: Achieve Integrated, Coordinated Efforts That Address the Viral Hepatitis Epidemics among All Partners

Goal 4: Improve Viral Hepatitis Surveillance and Data Usage

Objective 4.2: Improve reporting, sharing and use of clinical viral hepatitis data

Objective 4.2 Sample Strategies

Develop a hepatitis C viral clearance cascade surveillance system consistent with CDC guidance to monitor HCV elimination progress and to inform quality improvement efforts.

Use the hepatitis C viral clearance cascade to identify and engage patients in need of HCV RNA testing, linkage to care, initiation of treatment, and confirmation of cure.

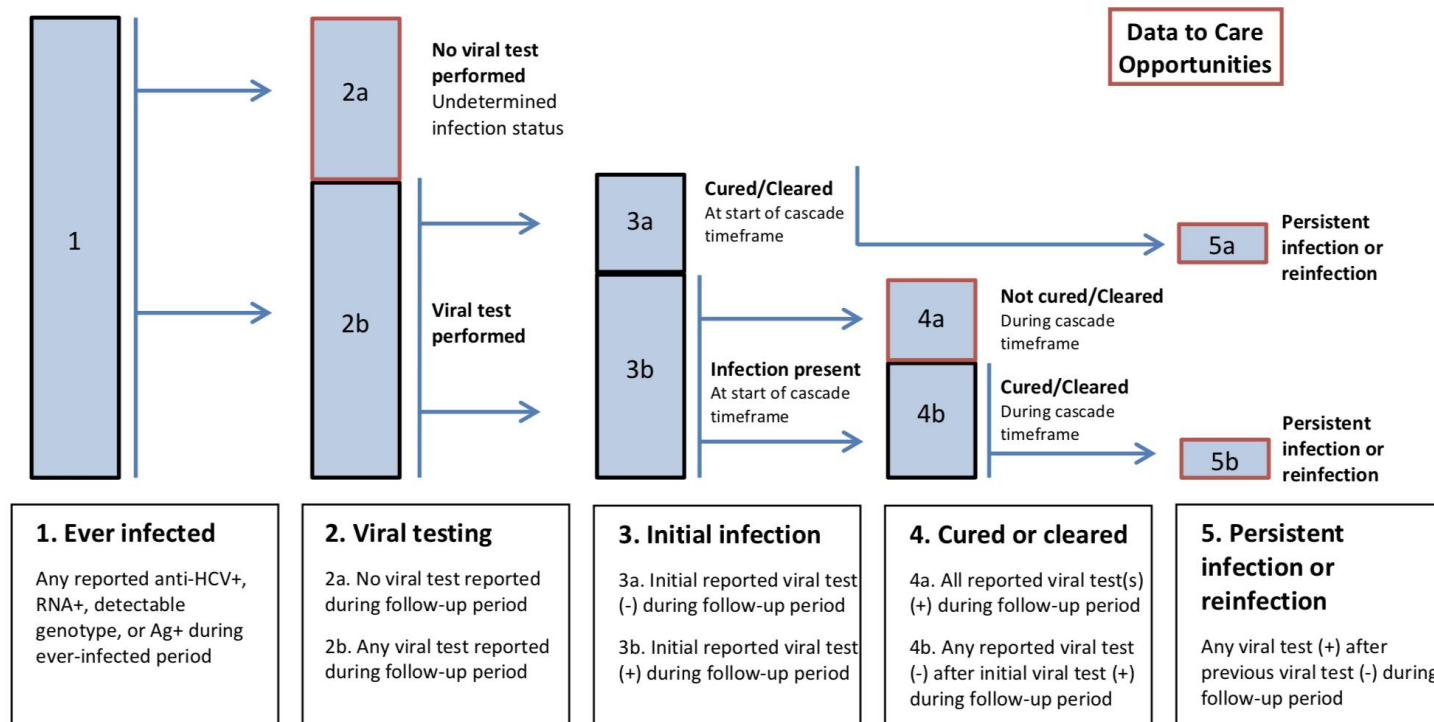
Support health care systems in using their electronic health records to measure hepatitis C prevalence, incidence, testing, and treatment.

Integrate other data sources including Medicaid claims, vital records, electronic health record, corrections, and disease registry data to characterize the hepatitis C viral clearance cascade for key populations.

Laboratory-based Hepatitis C Virus Clearance Cascade

Program Guidance for Local and State Health Departments

Figure 1. Laboratory-based Hepatitis C Virus Clearance Cascade for “202X” Evaluation Year—[Jurisdiction], [Starting point]–[End of follow-up period]



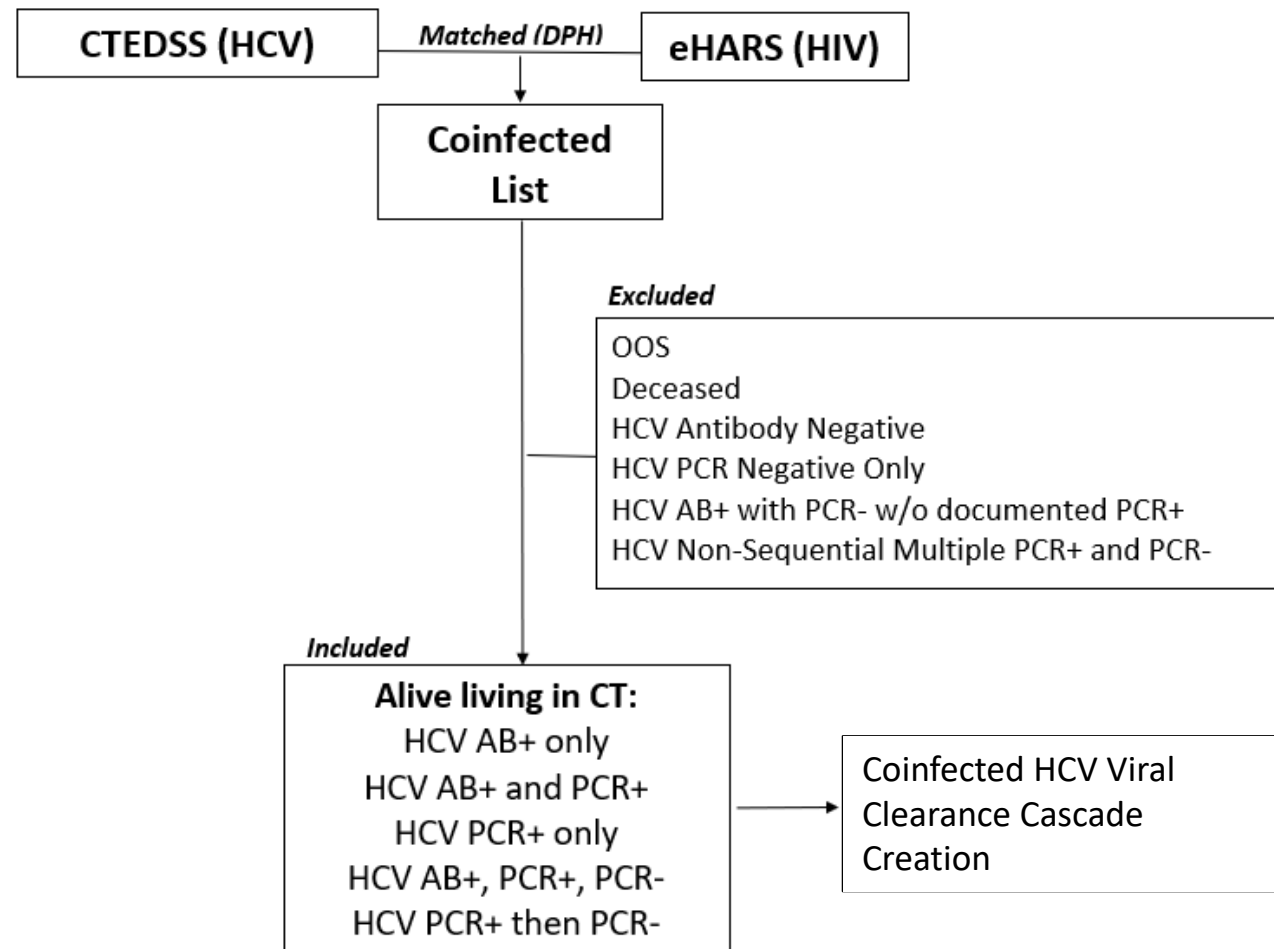
Abbreviations: anti-HCV+, antibody positive; Ag+, antigen positive; RNA+, ribonucleic acid positive

Note: Viral testing includes any HCV RNA, HCV genotype, or HCV core antigen test. (+) is defined as detectable HCV RNA or antigen; (-) is defined as undetectable HCV RNA or antigen.

Definition of Data to Care

- Data to Care (D2C) is a *public health strategy* that uses HIV surveillance and other data to support the HIV Care Continuum, by identifying persons living with HIV who need HIV medical care or other services and facilitating linkage to these services.
- Jurisdictions should include the active use of HIV surveillance data as part of their comprehensive strategy for linkage to and re-engagement in care activities.

Creating HCV Viral Clearance Cascade: Data Matching



Challenges to Creating HCV Cascade for HIV/HCV Co-infected Persons

- Incomplete HCV surveillance data
 - Lack of funding
 - Lack of dedicated staff
 - Lack of automated data entry
 - Lack of standardized matching algorithms
 - Inaccurate determinations of HCV care status

Preliminary Jurisdiction-wide Data

Demographics

Surveillance Data Sources

- HIV Surveillance
 - Prevalent as of 12/31/2019
 - All jurisdictions use eHARS

- HCV Surveillance
 - Distinct starting points for each jurisdiction (since the beginning of HCV surveillance)
 - End date for all 12/31/2019
 - Distinct databases used
 - Used to report nationally notifiable diseases to the CDC

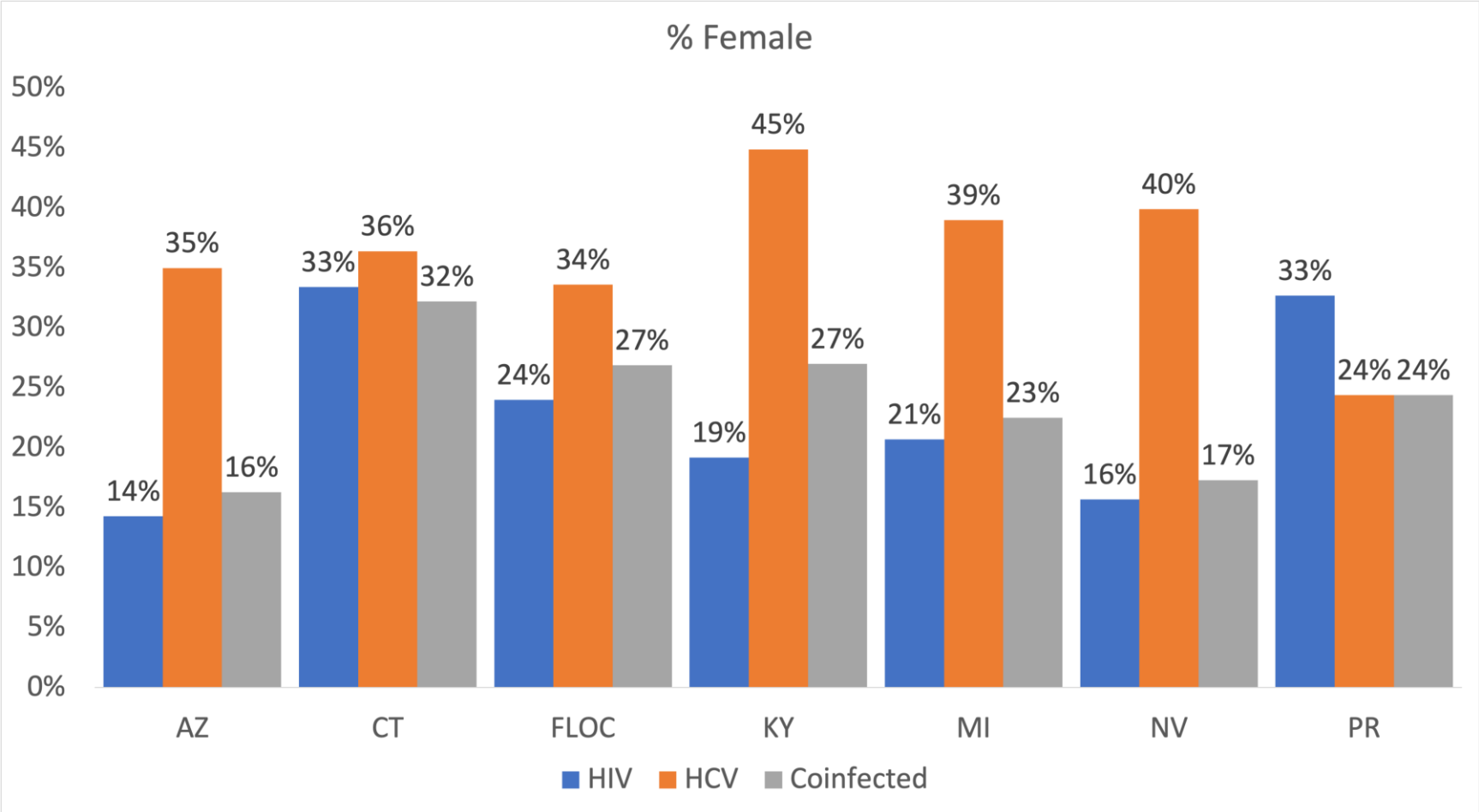
After Matching eHARS with HCV Surveillance: HIV/HCV Demographics

Category	Variable	AZ (N=1,500) ¹		CT (N=2,220) ²		FL (N=472) ³		KY (N=600) ⁴		MI (N=1,060) ⁵		NV (N=779) ⁶		PR (N=1,190) ⁷	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex	Male	1256	83.7%	1506	67.8%	345	73.1%	438	73.0%	822	77.5%	644	82.7%	897	75.6%
	Female	244	16.3%	714	32.2%	127	26.9%	162	27.0%	238	22.5%	135	17.3%	290	24.4%
Race	White	822	72.7%	576	44.3%	260	57.9%	392	65.6%	421	40.0%	499	65.5%	966	81.5%
	Black	174	15.4%	690	53.1%	184	41.0%	202	33.8%	586	55.7%	214	28.1%	160	13.5%
	Asian	17	1.5%	6	0.5%	<4	*	<4	*	9	0.9%	31	4.1%	0	0.0%
	AI and AN	86	7.6%	0	0.0%	<4	*	<4	*	*	*	7	0.9%	0	0.0%
	Other	31	2.7%	27	2.1%	5	1.1%	<4	*	36	3.4%	11	1.4%	59	5.0%
Ethnicity	Hispanic	370	24.7%	921	41.5%	149	31.8%	20	3.4%	57	5.6%	147	19.1%	1177	98.9%
HIV Transmission Category	PWID	437	31.6%	1533	72.9%	141	30.0%	256	46.5%	312	33.4%	198	27.5%	425	36.4%
	MSM	533	38.6%	206	9.8%	184	39.1%	150	27.2%	370	39.6%	329	45.6%	114	9.8%
	MSM and PWID	315	22.8%	93	4.4%	44	9.4%	88	16.0%	126	13.5%	139	19.3%	16	1.4%
	Heterosexual	96	7.0%	270	12.8%	101	21.5%	57	10.3%	127	13.6%	55	7.6%	612	52.4%
Most Recent HIV Viral Load Level	Detectable	136	12.4%	160	8.3%	59	15.4%	184	31.6%	117	12.9%	82	13.7%	115	12.4%
	Undetectable	959	87.6%	1771	91.7%	325	84.6%	398	68.4%	793	87.1%	517	86.3%	814	87.6%

Coinfection Rate for PWH	8%	21%	5%	7%	6%	7%	13%
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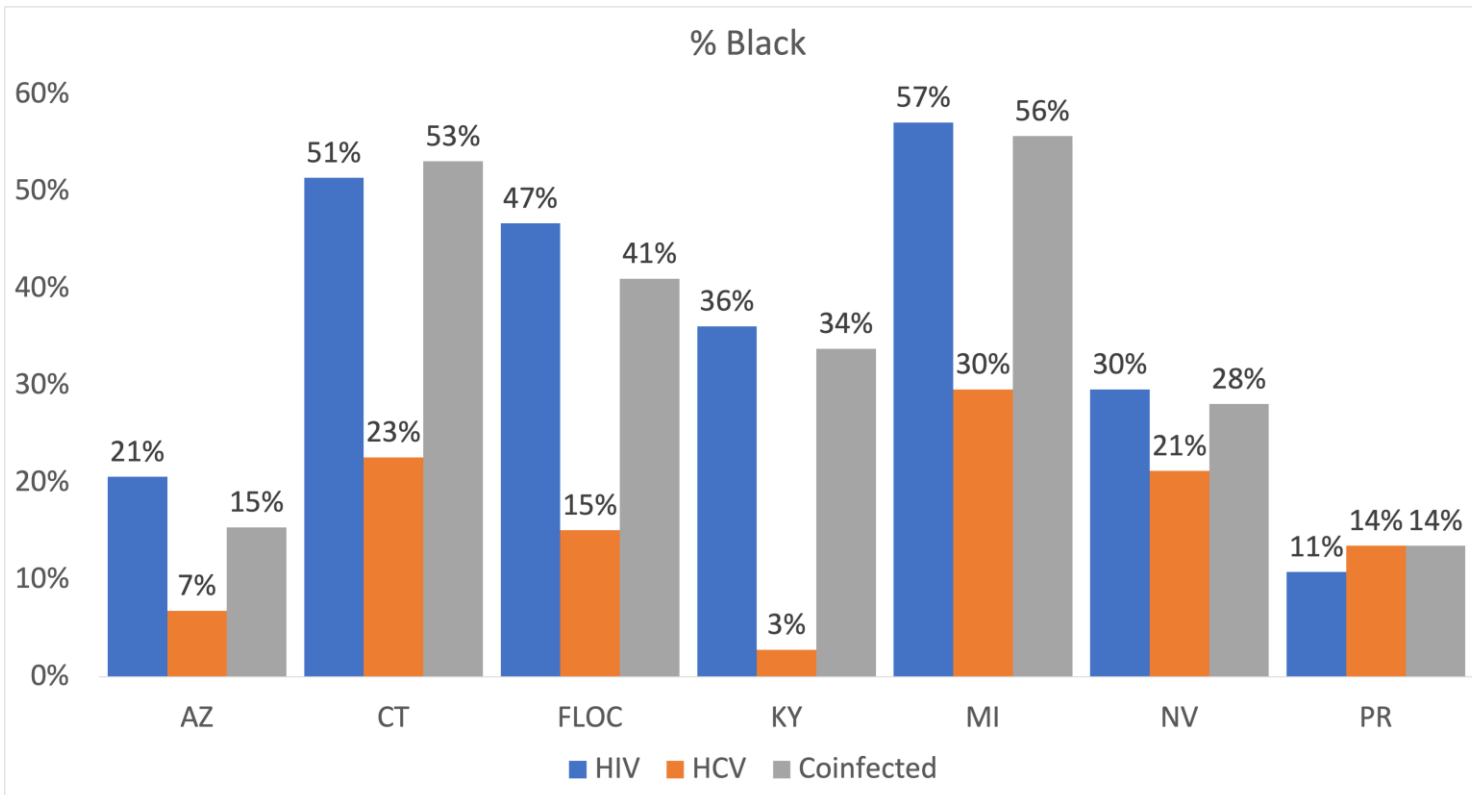
1. SAS used to match prevalent eHARS (as of 12/31/2019) to HCV data from MEDSIS (1/1/1998-12/31/2019); 2. SAS used to match prevalent eHARS (as of 12/31/2019) to HCV data from CTEDSS (1/1/1994-12/31/2019); 3. SAS used to match prevalent eHARS (as of 12/31/2019) to HCV data from MERLIN (1/1/2002-12/31/2019); 4. SAS used to match prevalent eHARS (as of 12/31/2019) to HCV data from GENTRACK (1/1/2013-12/31/2019); 5. SAS used to match prevalent eHARS (as of 12/31/2019) to HCV data from MDSS (1/1/2004-12/31/2019); 6. Match*Pro used to match prevalent eHARS (as of 12/31/2019) to HCV data from NBS (1/1/2015-12/31/2019); 7. No surveillance matching – coinfecting list created by query those in CareWare with any positive HCV laboratory result

HIV vs HCV vs HIV/HCV Cohorts by Jurisdiction: Birth Sex



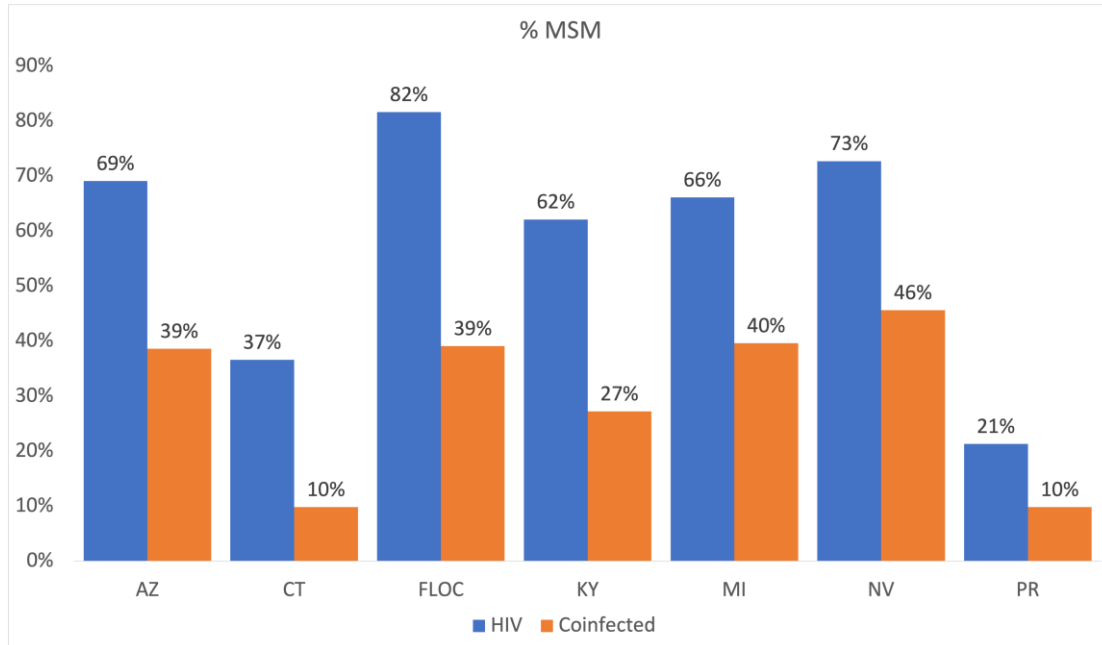
- HIV and HIV/HCV cohorts mostly male
- Greater % of female in HCV cohort compared to other cohorts

HIV vs HCV vs HIV/HCV Cohorts by Jurisdiction: Race/Ethnicity

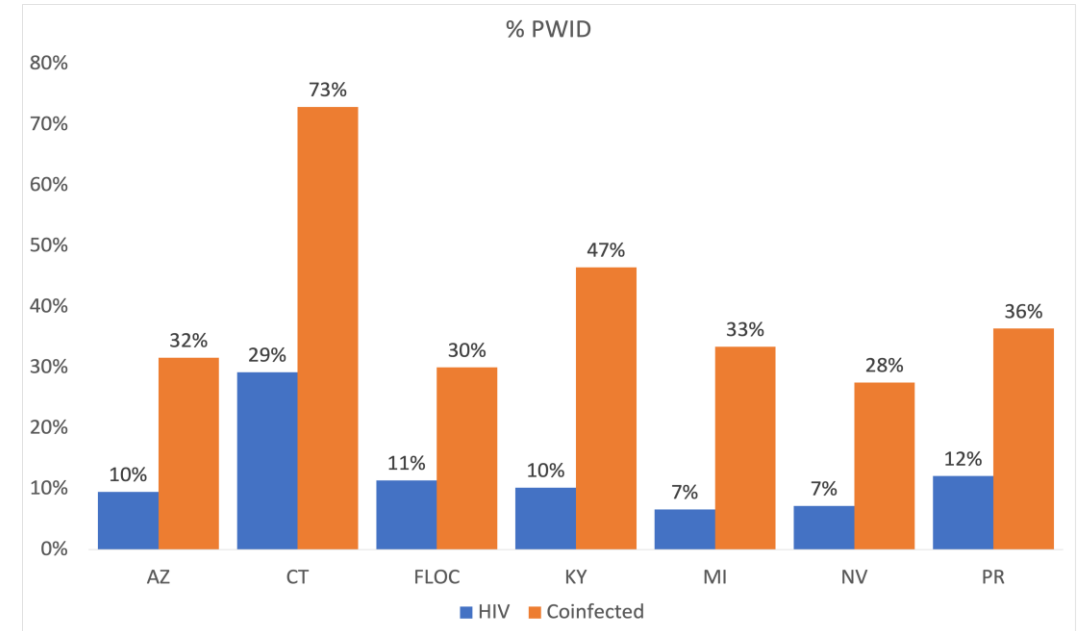


- Greater proportion of Black within HIV and HIV/HCV cohorts compared to HCV cohort
- HCV cohort is primarily white – particularly in KY
- High percentages of AI/AN in AZ for each category
- In Puerto Rico, all three cohorts are primarily Hispanic

HIV vs HCV vs HIV/HCV Cohorts by Jurisdiction: HIV Transmission



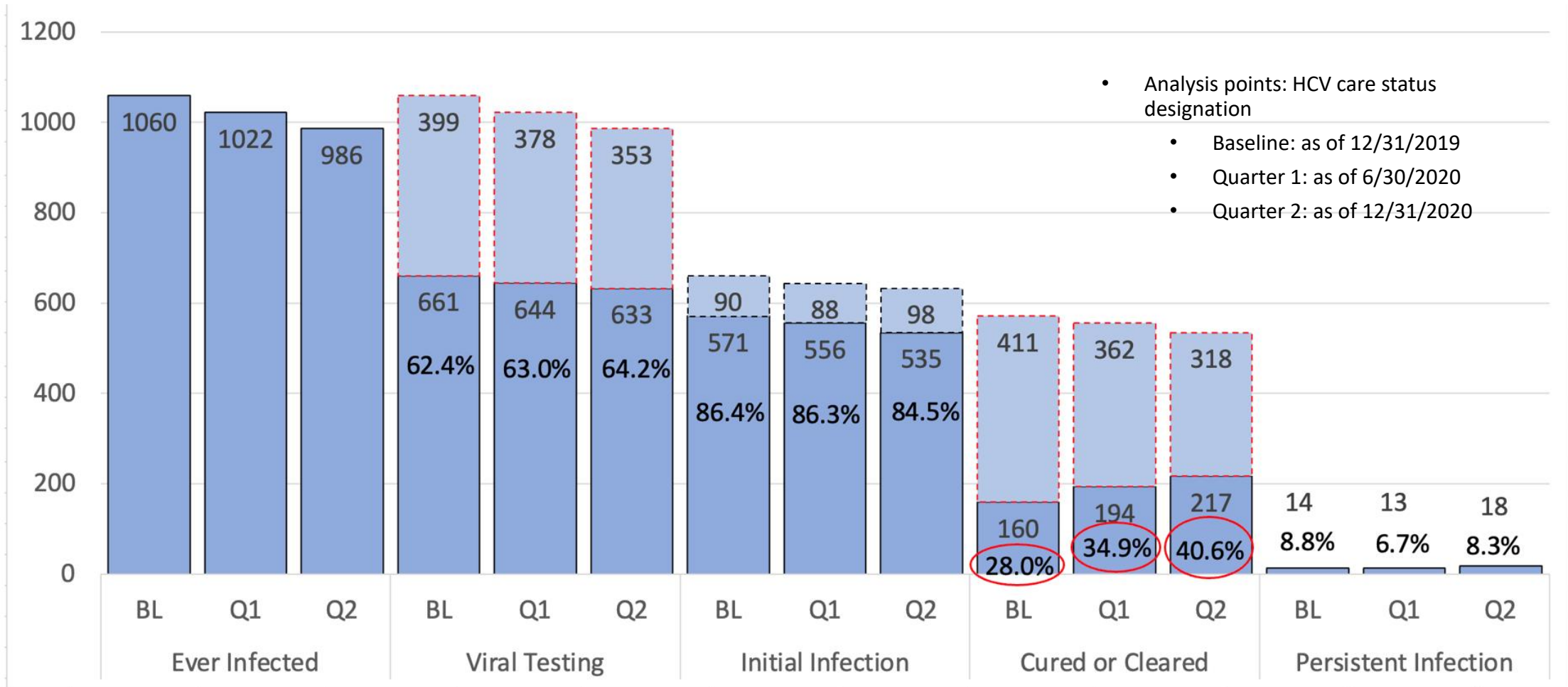
MSM is the main driver of HIV transmission – PR reports heterosexual transmission has the highest % for HIV



PWID is the main driver for coinfection with CT being considerably higher than the other jurisdictions

Selected Viral Clearance Cascades

Longitudinal HCV Viral Clearance Cascade: Michigan (Persons with HIV/HCV coinfection as of 12/31/2019)



Selected Q2 (as of 12/31/20) Viral Clearance Cascade Comparisons: D2C opportunities

Jurisdiction	Ever infected	% Viral Testing	% Cured/Cleared
AZ	1410	67.4%	18.7%
CT	2083	77.6%	49.1%
FLOC	458	89.5%	55.3%
KY	574	89.7%	42.1%
MI	986	64.2%	40.6%
NV	704	67.8%	36.2%

- Viral testing %
 - **D2C focus for those who have not received any PCR testing**
- Cured/Cleared %
 - Dependent on robustness of surveillance data
 - Improvements with data cleaning
 - Improvements with subsequent quarterly submissions
 - **D2C focus for those who lack HCV treatment or proof of cure/clearance (PCR- results)**

Calculating the Care Cascade for Co-Infected Populations

Evaluation Findings

Jurisdictional Programmatic Infrastructure

- HCV surveillance programs are often newer than HIV surveillance programs
- HIV and HCV surveillance most commonly in same Division
 - Programs often operate separately, including data management activities
- Ryan White Part B program location varied
 - Not as commonly in same Division as HIV or HCV Surveillance Programs
 - History of collaboration with HIV surveillance program
 - Relationship with HCV surveillance is new/still developing

Data Sharing and History of Matching Data

- Data sharing agreements
 - Most jurisdictions did not require data sharing agreement
- HIV/HCV surveillance matching history
 - Routine (3 jurisdictions)
 - Ad hoc (1 jurisdiction)
 - None (3 jurisdictions)

Approaches In Calculating Care Cascades

4

jurisdictions

- HIV/HCV surveillance program collaboration
- One program completes match

2

jurisdictions

- County (non-state) lead
- State creates cascade/provides data

1

jurisdiction

- RWHAP data system primary data source
- HCV surveillance system under development

- Limited coordination/communication
 - Between HIV and HCV surveillance programs
 - With RWHAP
- Data issues
 - Volume and management of HCV labs
 - Lab reporting gaps
 - Interpretation of lab results
 - 'Unpackaging' labs
- Staffing
 - Turnover
 - Limited capacity for additional work, particularly with first time matching

Factors Impacting Care Cascade Results

Denominator includes individuals with positive antibody results only



Over-reporting chronic HCV

Negative PCRs under-reported or not included



Under-reporting cure

Change in reporting negative labs/data quality



Over-reporting cure

Demographic breakdowns not routinely included



Time consuming to populate categories

Lessons Learned (1)

Planning

- Involve all programs (HIV surveillance, HCV surveillance, RWHAP) at inception
- Determine if data sharing agreements are needed
- Identify an “HCV champion” to help coordinate the activities

Lessons Learned (2)

Implementation

- Develop formal protocols and policies
- Leverage HIV surveillance data to improve HCV surveillance data quality
- Allocate adequate time for activities, particularly if matching is new

Lessons Learned (3)

Infrastructure Development

- Co-locate and/or co-fund epidemiologists
- Identify opportunities for data integration across HIV and HCV surveillance as well as RWHAP
- Use matching activities to identify areas for improvement and expand matching capacity

Outreach and Linkage to Care

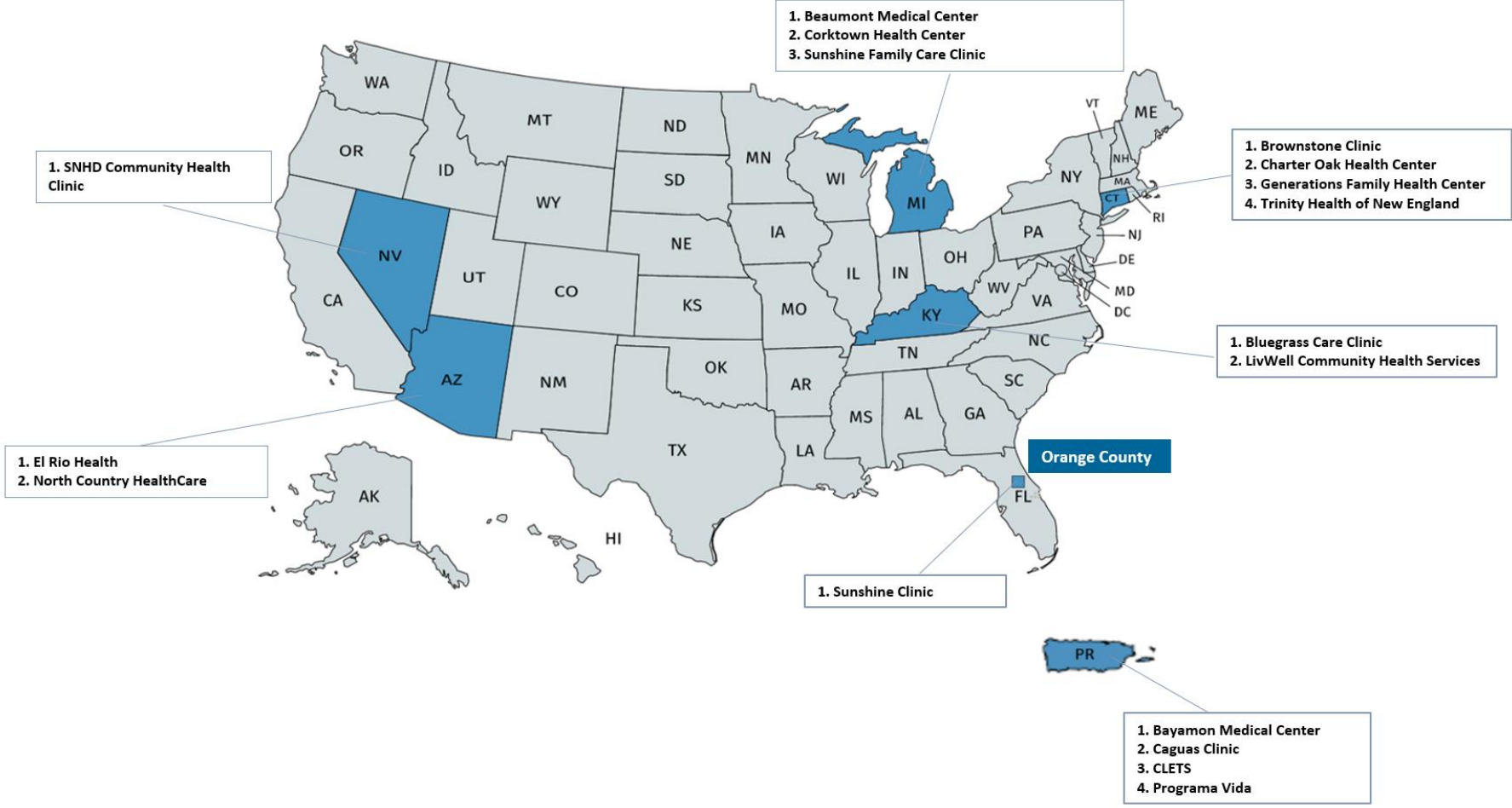
Yale University School of Medicine

Outreach and Linkage to Care with RWHAP Clinics

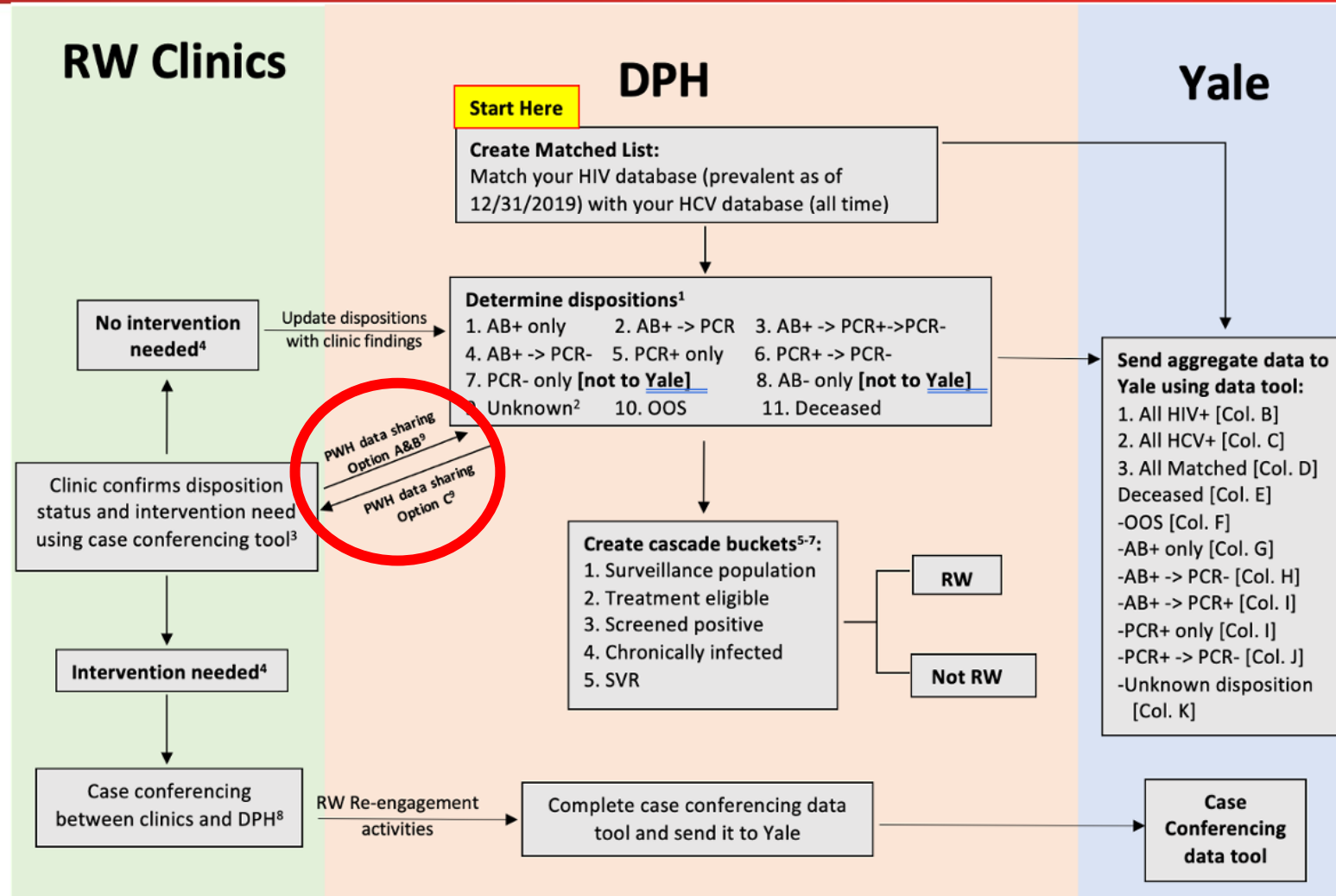
Processes for Data Tracking and Reporting
(Case Conferencing Tool)

Preliminary Data

Collaboration with RWHAP Clinics

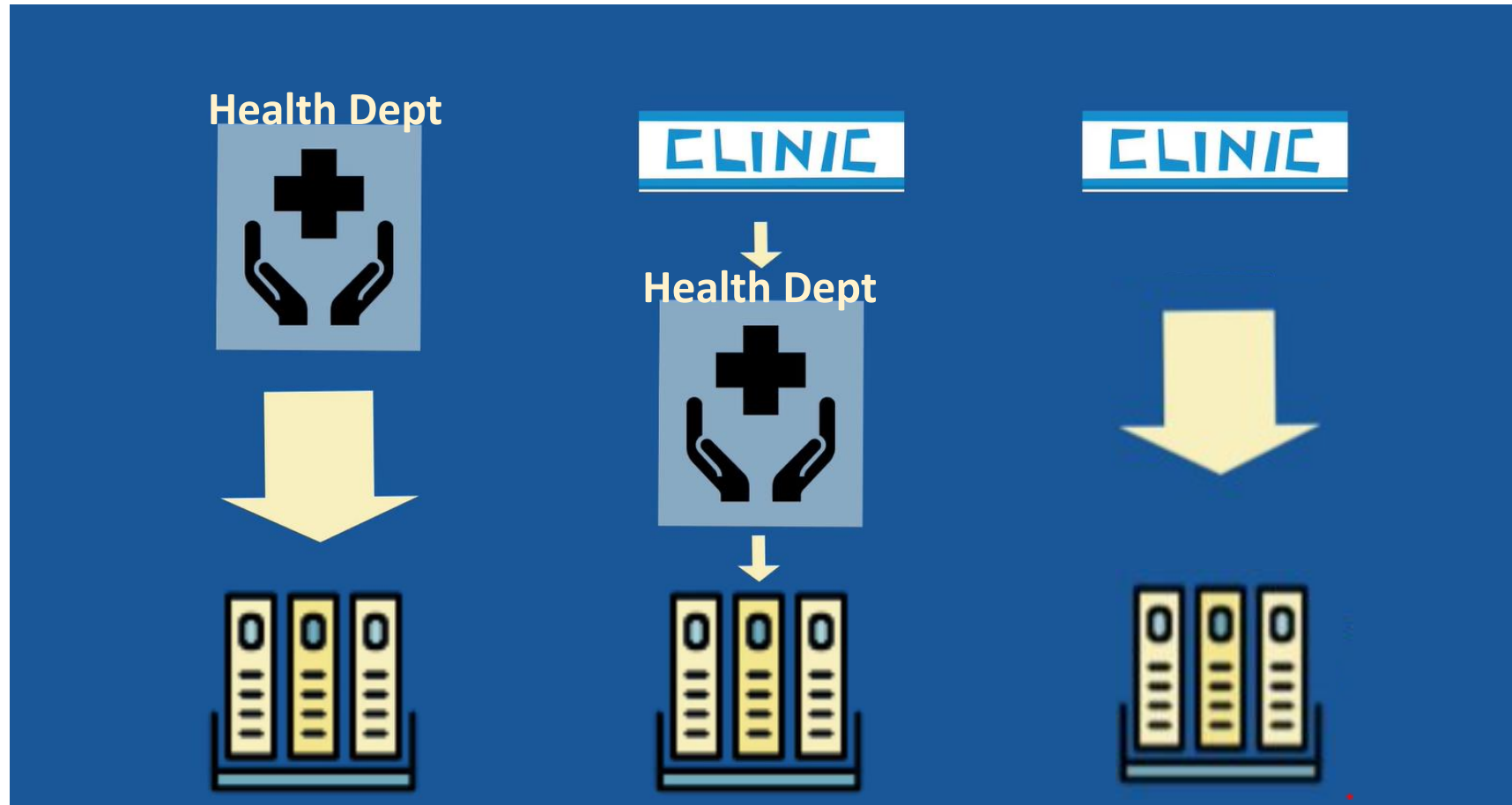


Data Flow between Project Partners



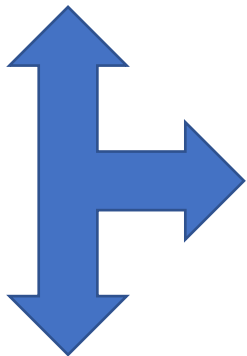
- Rationale: addressing jurisdictional care cascade gaps requires communication with individual clinics.
- Case Conference: mechanism used for data to care; involves communication between DPH champion and clinic staff.

Step 1: Mechanisms for Coinfection List Generation



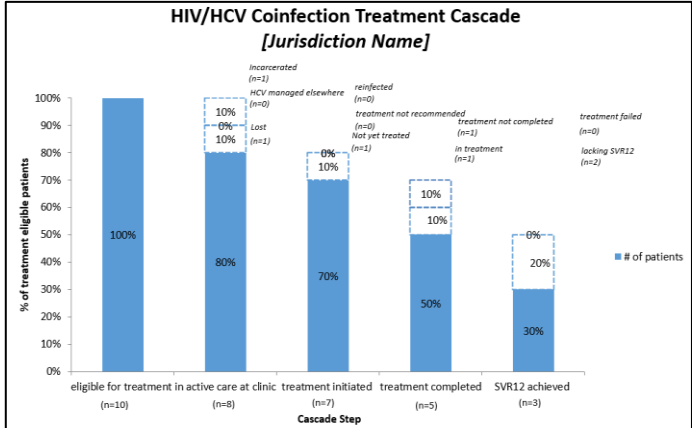
Case Conferencing Process

Health Dept



CLINIC

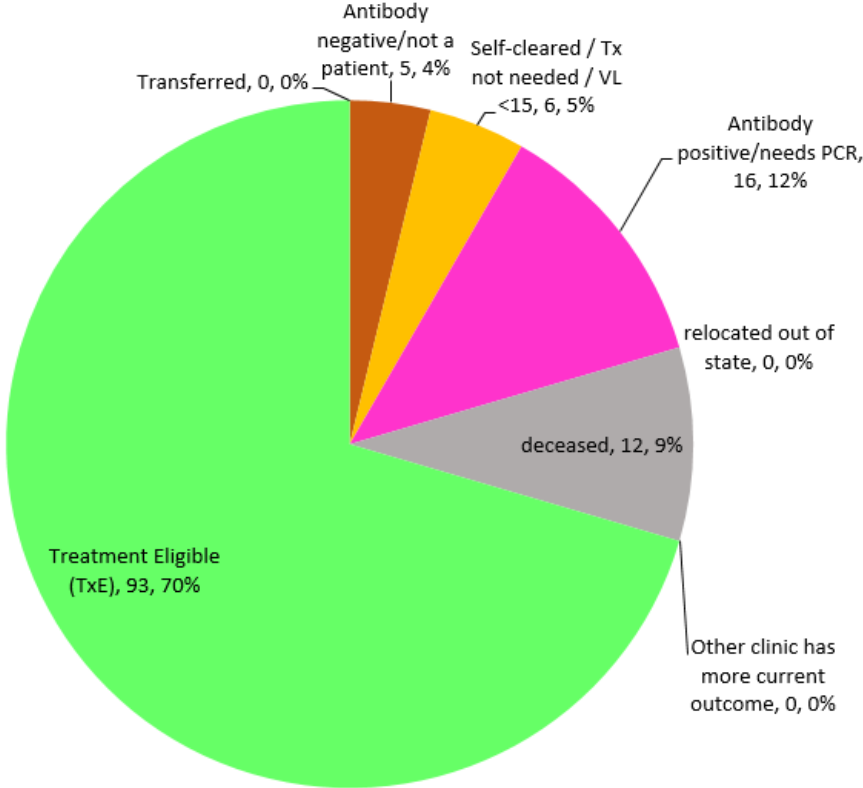
Row#	Match ID Number	Patient Outcome Category	Date of successful SVR12
			M4
			9/22/2021
3		deceased	NotRequired
4		TE: Tx incomplete	1/0/1900
5		Self-cleared / Tx not n	NotRequired



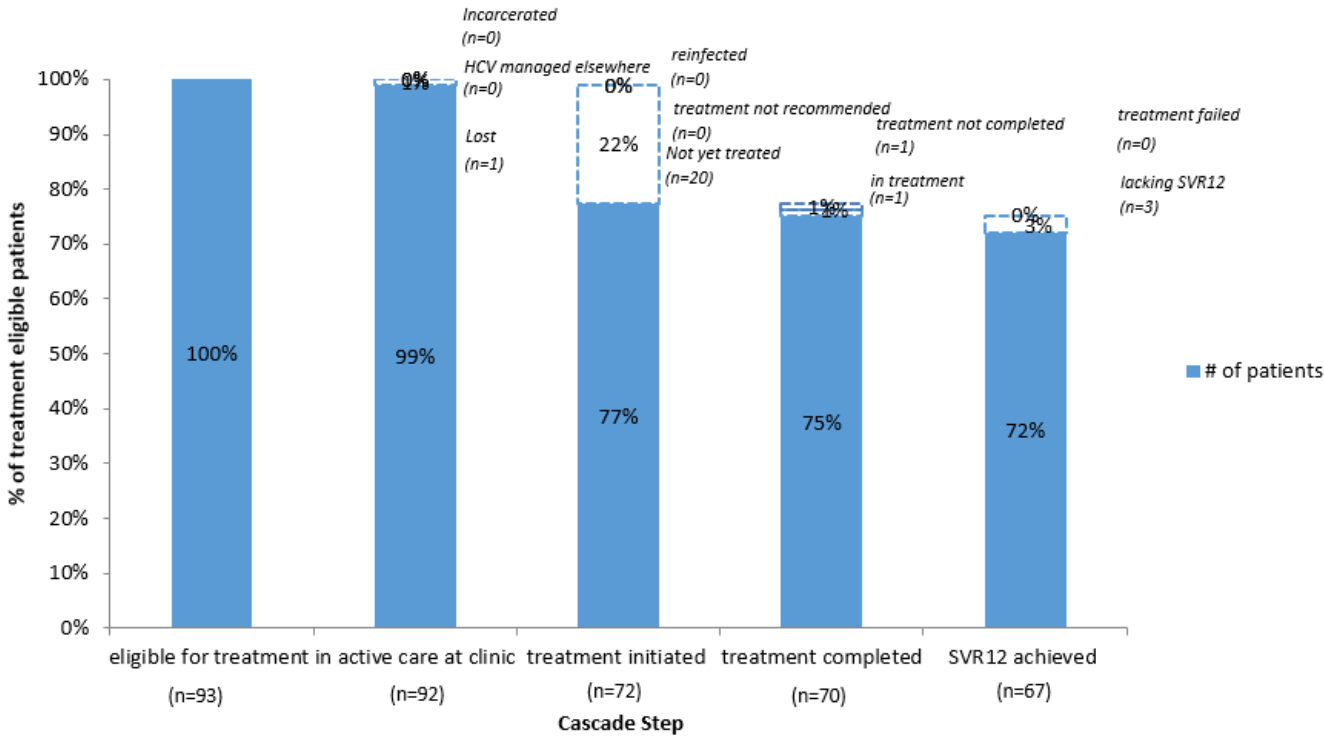
	All px	Antibody negative/n ot a patient	Self-cleared / Tx not needed / VL <15	relocated out of state
Total # of Patients	N 17	0	2	1
Sex at Birth				
Male	4	0	0	0
Female	3	0	0	0
Unknown/Missing	1	0	1	0
Tally Check	9	0	1	1

Example: HIV/HCV Coinfection Treatment Cascade, AZ Clinic, Q2

HIV/HCV Coinfection Broad Outcomes



HIV/HCV Coinfection Treatment Cascade



*cohort of persons in care for HIV at clinic 1/1/2018 - 8/31/2021; HCV treatment status as of 2/28/2022

Analysis of Untreated Individuals (AZ Clinic - Q2)

		Number	%
Total Patients		20	-
Sex at Birth	Male	16	80%
	Female	4	20%
Race	White	12	60%
	Black/Other	5	25%
Ethnicity	Non-Hispanic	17	85%
	Hispanic	3	15%
Multiple Barriers	Only 1	3	15%
	2-3	11	55%
	4-5	3	15%
Frequent Barriers	Substance Use	14	70%
	Other Priorities	8	40%
	Lack of Transportation	5	25%

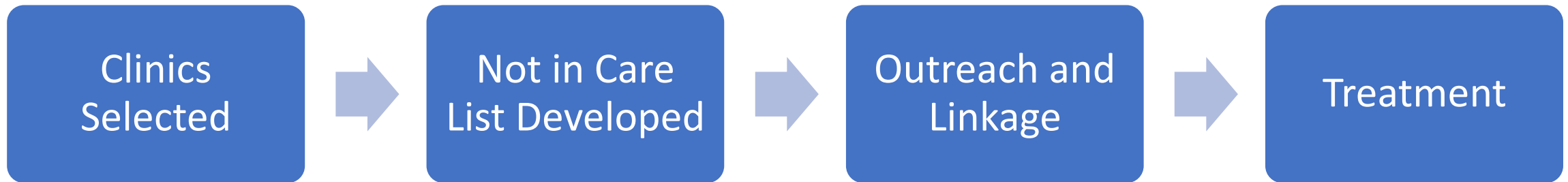
Next Steps in RWHAP Clinic Collaboration

- Continue case conferencing with participating clinics
- Analyze gaps
 - In care
 - In databases
- Assess best practices from high performing clinics
- Assess potential new interventions and disseminate
- Assess impact of cascade creation

Outreach and Linkage to Care

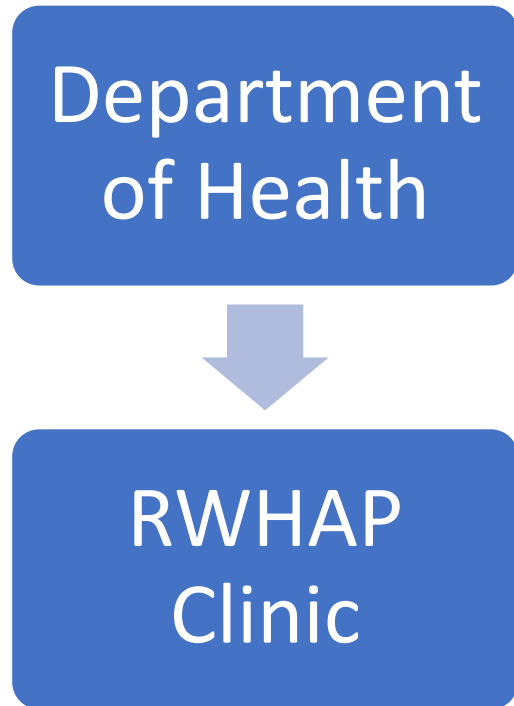
Evaluation Findings

Outreach and Linkage to Care

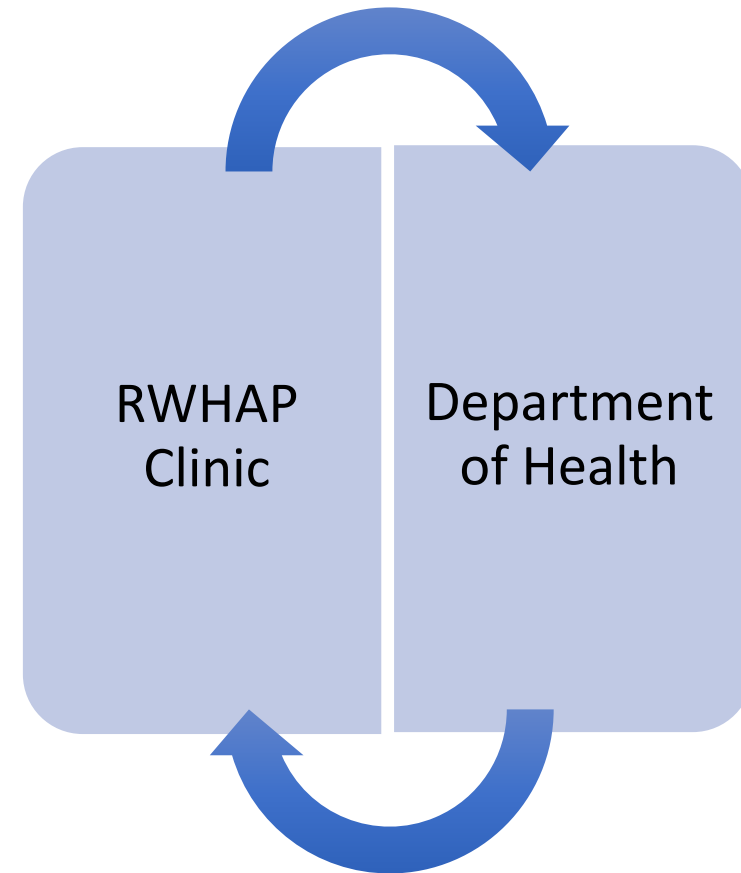


Models of Data Sharing

1



2



Clinic Selection: What's Working So Far?

- Clinics with health department affiliations
- Clinics with a large footprint
- Geographically diverse clinic selection
- Clinics using networked data systems
- Capacity for HCV care
 - Working with clinics with existing capacity
 - Building capacity by co-locating HCV and HIV care
- Leveraging existing relationships with clinics

System-Level Challenges to Outreach and Linkage



Outreach and linkage depends on **data sharing**



Clients from non-participating clinics must be removed from outreach list



Individual Release of Information (ROI) required



Poor data quality at clinics and at HCV surveillance level

Clinic-level Challenges to Outreach and Linkage

Engaged clinics vary in size, type, capacity

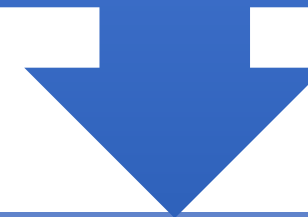
- Understaffed
- Delineation of roles for outreach and linkage
- Lack of additional resources to clinics

Clinic leadership

COVID-19

Outreach and Linkage: Future Plans

Most jurisdictions have not finalized
outreach and linkage plans



Jurisdictions are currently:

Identifying
designated outreach
and linkage staff

Defining outreach
strategies

Developing
measures of
successful outreach

Lessons for Future Jurisdictions

01

Understand your public health statute when developing your data sharing and outreach model

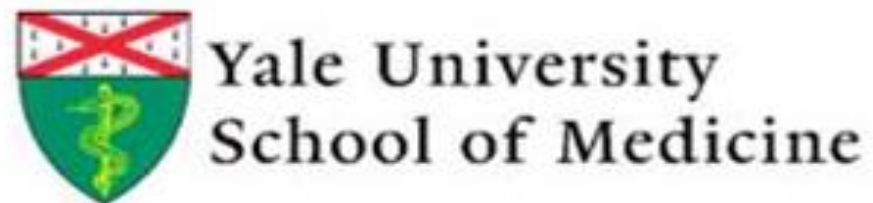
02

Understand HIV D2C activities happening in the jurisdiction

03

Engage clinics early on

Thank You



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