Coordinating, Communicating, and Collaborating
The 3 Cs for Cluster Detection & Response

Ending The HIV Epidemic
TAPin Technical Assistance Provider innovation network
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Cooperative Agreement Award # U69HA33964

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Ending The HIV Epidemic

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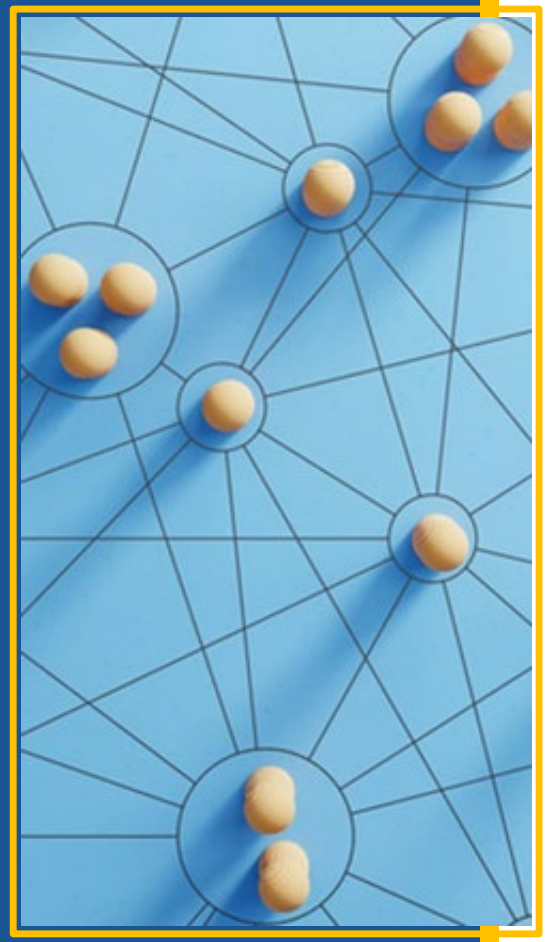
Strengthen & support implementation of jurisdiction Ending the HIV Epidemic in the U.S. (EHE) Plans to contribute to the achievement of a reduction in new reported HIV cases by 75% by 2025

Tip: Get TAP-in TA and Training by Contacting TAP-in@caiglobal.org



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Executive Director, Center for HIV Identification, Prevention, and Treatment Services (CHIPTS), UCLA

Learning Objectives

Define key definitions and components in Cluster Detection and Response

Discuss the role of EHE and Ryan White HIV/AIDS Program (RWHAP) resources in Cluster Detection and Response

Describe approaches to communication, coordination and collaboration for Cluster Detection and Response

Discuss lessons learned from the field in Cluster Detection and Response

Identify training and TA resources

Why Cluster Response?

- On average, HIV transmission in clusters is **11 times** as fast as the national average, and some clusters have transmission rates up to **30 times the national average**, or even higher.

- Recognition of these clusters enables more rapid and effective responses that direct resources and **prevention, care and treatment** services where they are needed most.

Adapted from: https://targethiv.org/sites/default/files/RWNC2020/16765France.pdf

Susan Robilotto, DO, Director, Division of State HIV/AIDS Programs (DSHAP), HIV/AIDS Bureau (HAB)
CDR Anne Marie France, PhD, MPH, Epidemiologist, HIV Incidence and Case Surveillance Branch, DHAP, CDC
Colin Flynn, ScM, Chief, Center for HIV Surveillance, Epidemiology and Evaluation, Maryland Department of Health

Why Cluster Response?

About 80 % of new HIV transmissions are from people who are unaware of their HIV infection or individuals who are not receiving care (1)

Among new HIV diagnosis in 2018, 20.8% were stage 3 / Late HIV (2)

Source:

(1) Li Z, Purcell DW, Sansom SL, Hayes D, Hall HI. Vital Signs: HIV Transmission Along the Continuum of Care — United States, 2016. MMWR Morb Mortal Wkly Rep 2019;68:267–272. DOI: http://dx.doi.org/10.15585/mmwr.mm6811e1 3.

(2) Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas, 2018. HIV Surveillance Supplemental Report 2020;25(No. 2). http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Published May 2020.

Benefit to the communities

- Improving HIV care and viral suppression outcomes
- Increasing testing and use of prevention services
- Identifying where additional HIV services are most urgently needed
- **Enhancing engagement with communities experiencing rapid HIV transmission** to **improve prevention and care services**

Source: https://www.cdc.gov/hiv/programresources/guidance

Polling Question 1

What best describes your role in Cluster Detection and Response?

- **A** Health Department Surveillance Staff
- **B** Clinician (Physician, Nurse Practitioner, Physician Assistant, Nurse, other)
- **C** Community Member, Person with Lived Experience
- **D** Disease Intervention Specialist, Partner Services Staff
- **E** Case Manager, Navigator, Social Worker
- **F** Public Safety Staff
- **G** Prevention Providers, Testing Staff, Linkage Coordinators (to PrEP and/or Treatment)
- **H** Other (please write in chat)

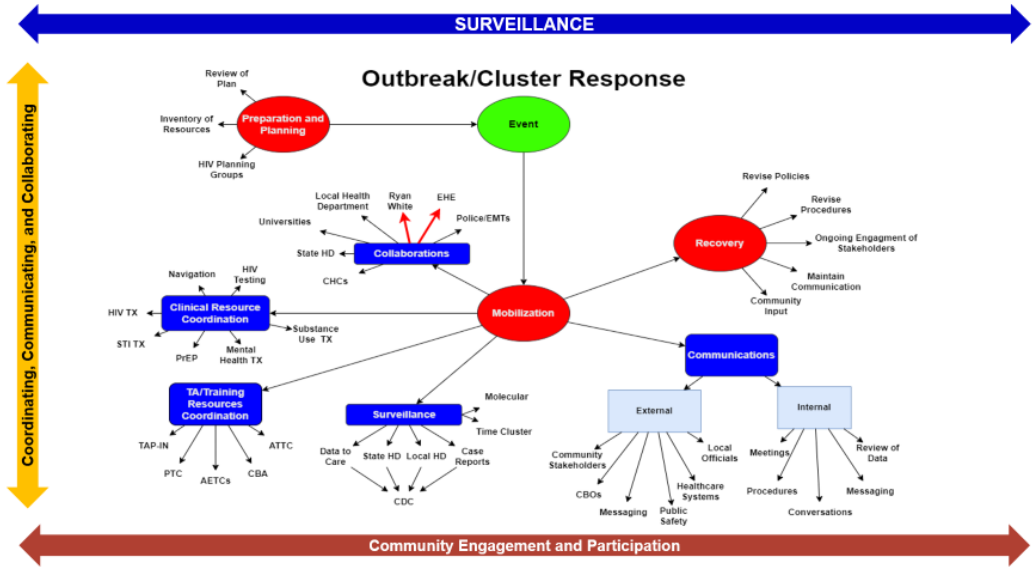
Polling Question 2

Are you familiar with your state's Cluster Detection and Response Plan?

- **A** Yes, I helped develop the plan
- **B** Yes, I have read the plan
- **C** No, I've never seen it
- **D** What is a Cluster Detection & Response Plan?
- **E** Other (please write in the chat)

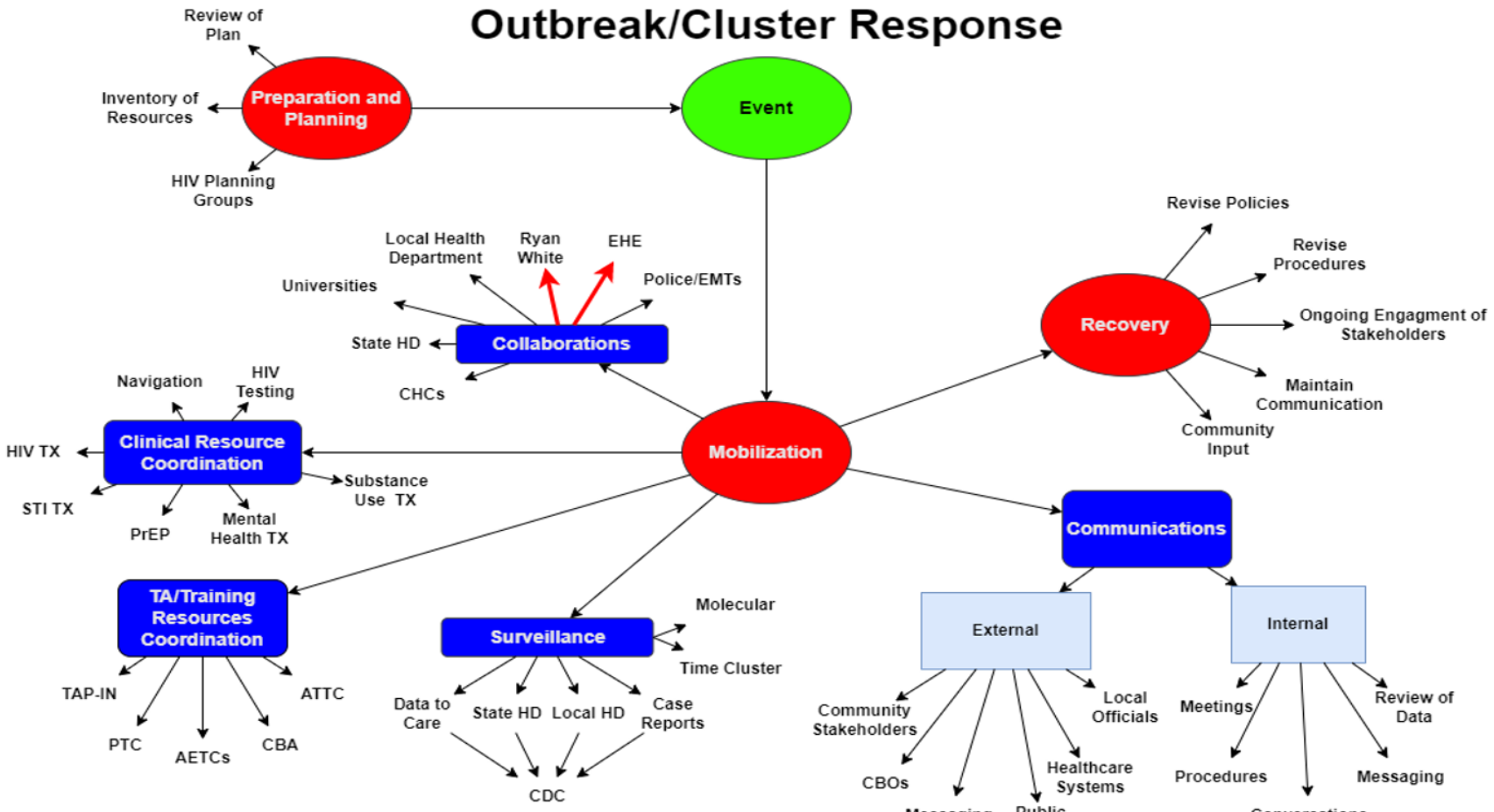
Review of Schematic

Linda Rose Frank, PhD, MSN, FAAN
Professor, Public Health, Medicine, and Nursing
University of Pittsburgh
Principal Investigator, MidAtlantic AIDS Education & Training Center (MA AETC)



SURVEILLANCE

Coordinating, Communicating, and Collaborating



Community Engagement and Participation

L. Frank, 2023

PREPARATION IS EVERYTHING

What is your role?

What is your agency's role?

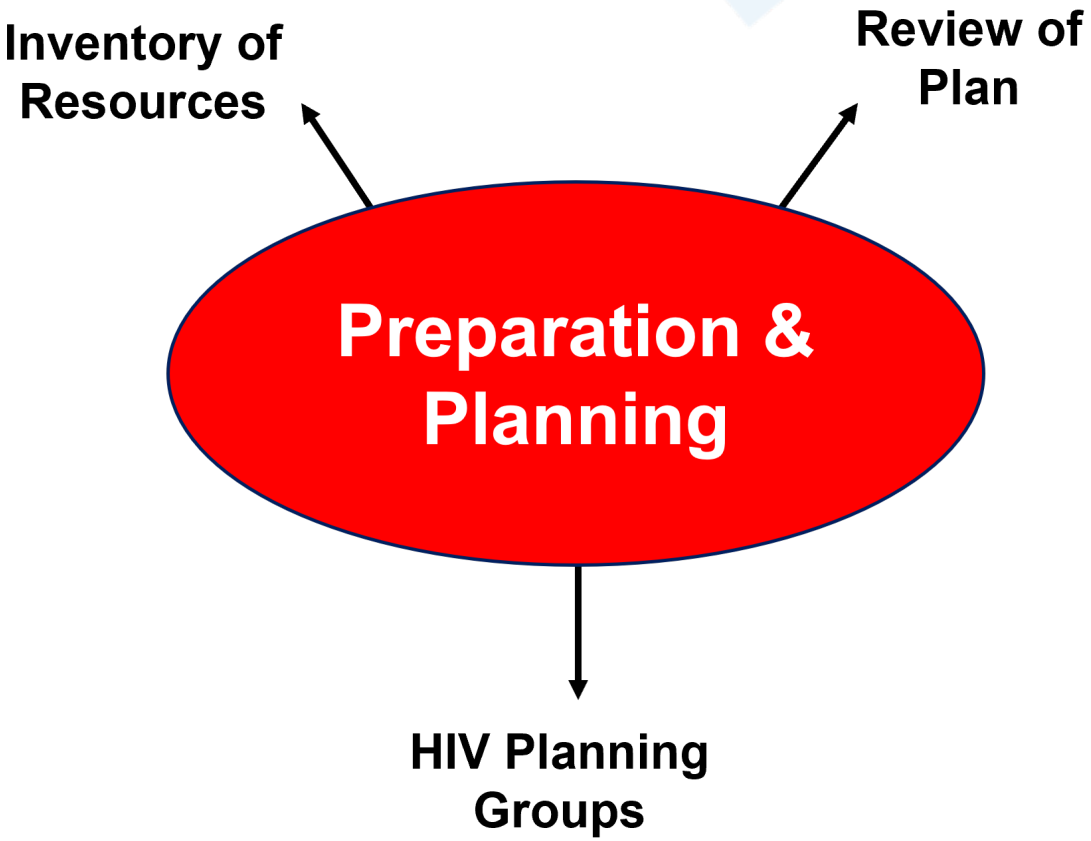
Who is the lead?

What are the resources?

What are the training needs?

Who can I network with?

Who can give input?



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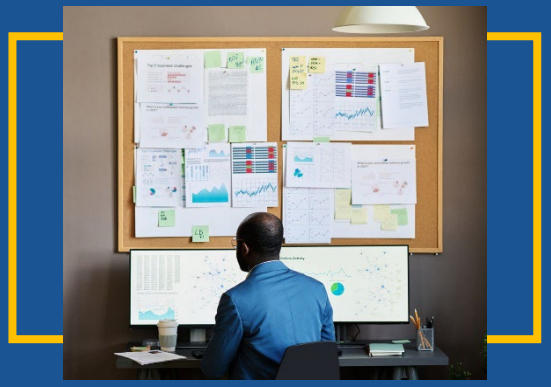
WHAT HAPPENED?

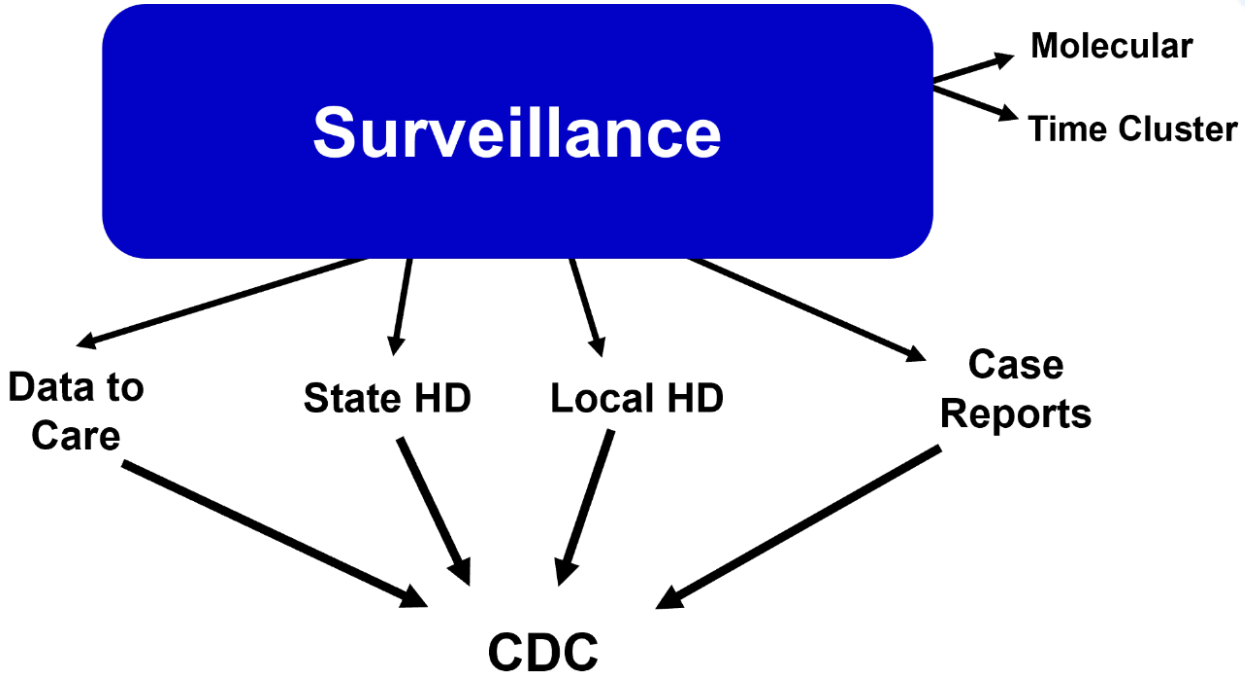
- **How did the community learn about it?**
  - Official channels
  - Unofficial channels
  - News media
  - Social media
- **What data was used?**
  - Rates of new acute HIV infections
  - Rates of new HIV diagnoses
  - Persons out of HIV care
  - Persons with detectable and or increased viral loads
- **What is the growth of the cluster?**
  - Location(s)
  - Risk behavior(s)
  - Coinfections: STIs, HCV
- **What are the resources in the location?**
- **What are the ongoing unmet needs?**
  - Poverty, homelessness, housing shortage, limited CHCs or RW clinics

Epidemiological Event



KEY COMPONENTS

- Obtaining data
- Interpreting data
- Taking action based on data
- Communication about data
- Cross-agency collaboration
- Cross-agency communication
- Cross-agency coordination



ACTION

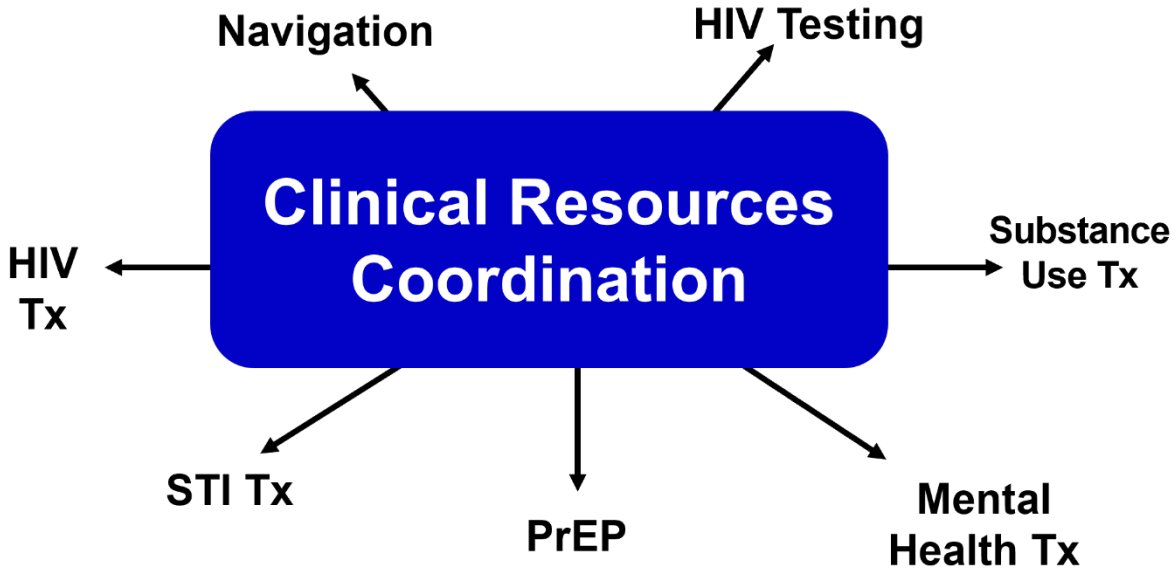
- **Who leads or co-leads the coordination? Is it a team?**
- **Who are the state experts? Local expert?**
  - Epidemiologists
  - Clinicians
  - Preventionists
  - Community workers
- **When and how does CDC get involved?**
  - Who has the authority to contact them?
  - When and how should this be accomplished?
- **How are the components of the plan disseminated?**
  - Who does this?
  - When does it happen?

Foundational Collaboration

- Building on existing network
- Creating new ones
- Developing synergy
- Reduce duplication
- Improve effectiveness
- Improve quality

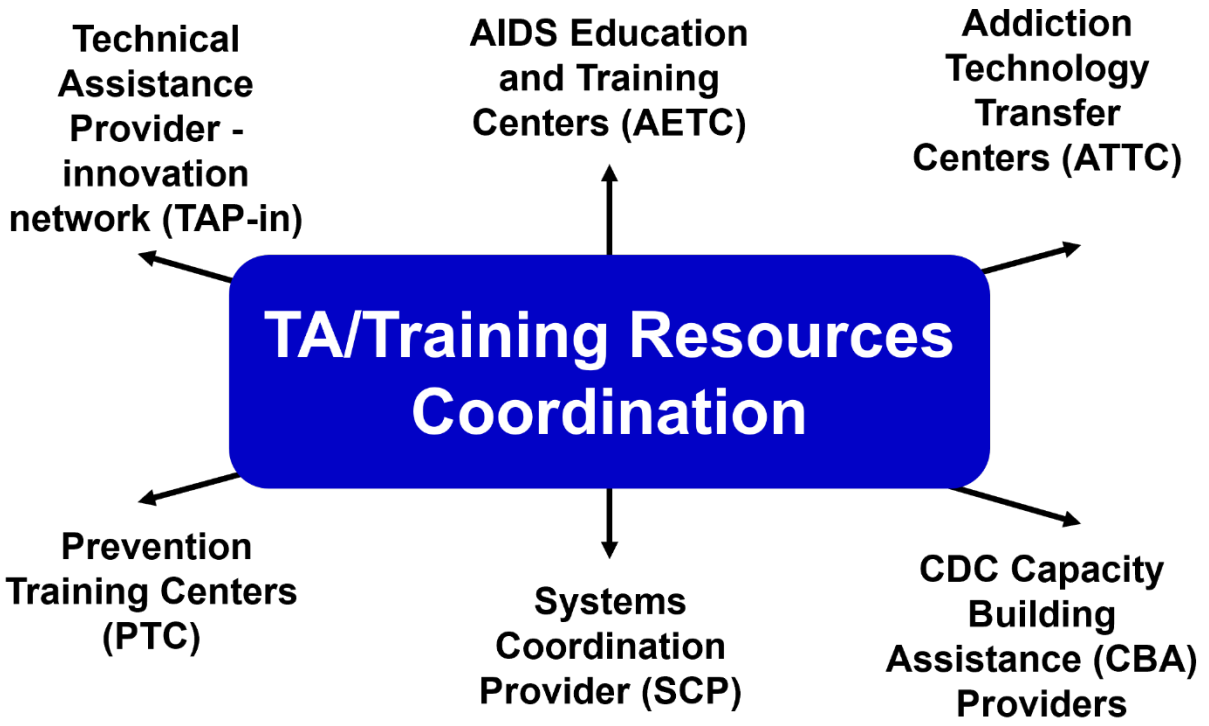
Engaging Clinical Resources

- Deciding what is needed
- Reviewing what is available
- Engaging with institutional/program leadership
- Engaging with community stakeholders
- Identifying training and TA needs



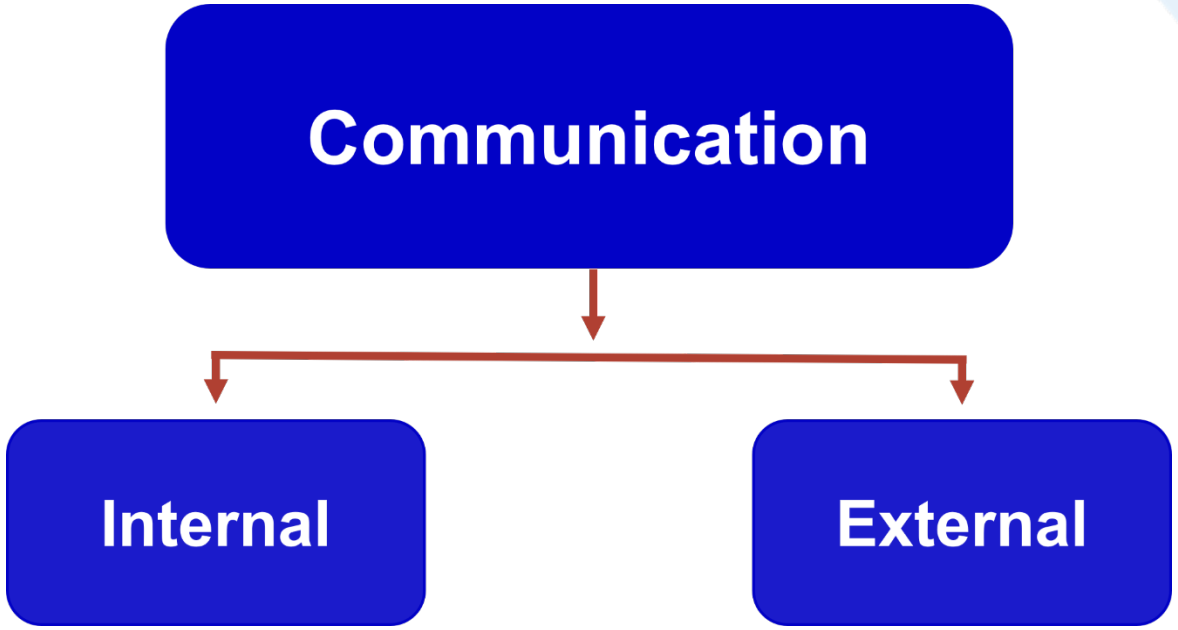
KNOWING TRAINING RESOURCES

- HHS Regional Offices
- Federally funded training centers
- Academic training resources
- State Health Department training resources
- CDC training and capacity building resources



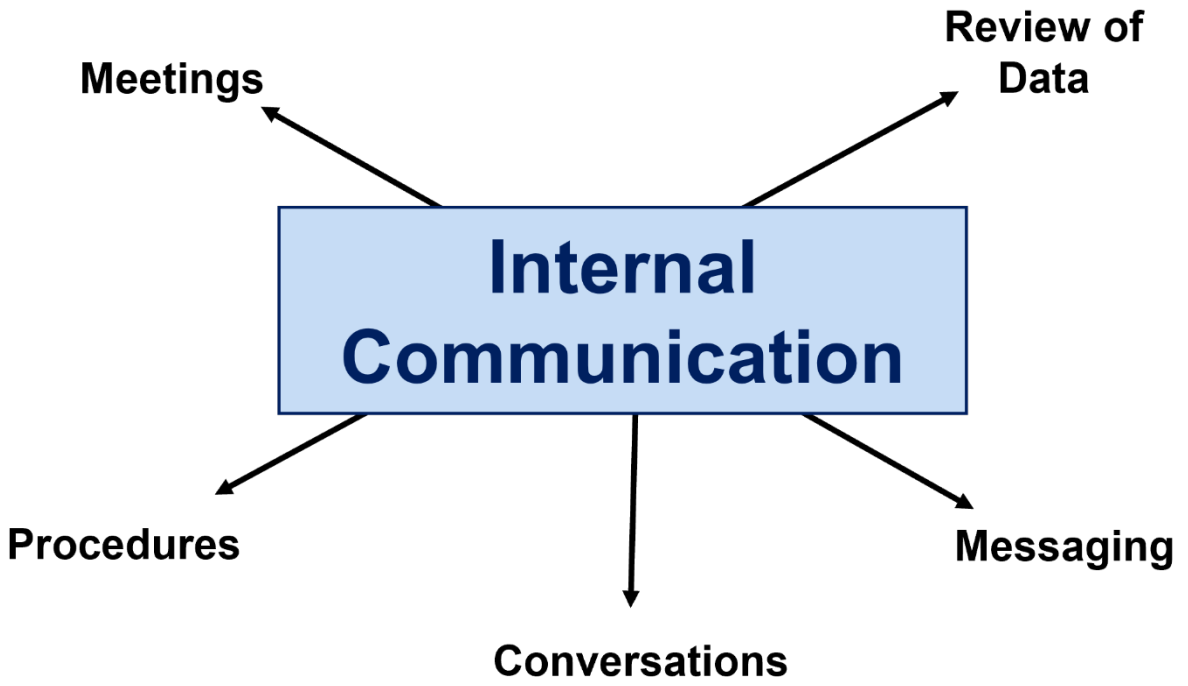
BI-DIRECTIONAL

- With whom?
- Why are you doing it?
- When?
- How often?
- How?



BI-DIRECTIONAL

- How quickly?
- With whom?
- What methods?
- How does this lead to action?
- How does this lead to agency, healthcare, government:
  - mobilization
  - joint problem solving
  - Identification on resources needs
- How does this assist in identifying
  - unmet community needs
  - Healthcare training needs
  - More outreach
  - More testing
  - Better linkage to care
  - PrEP

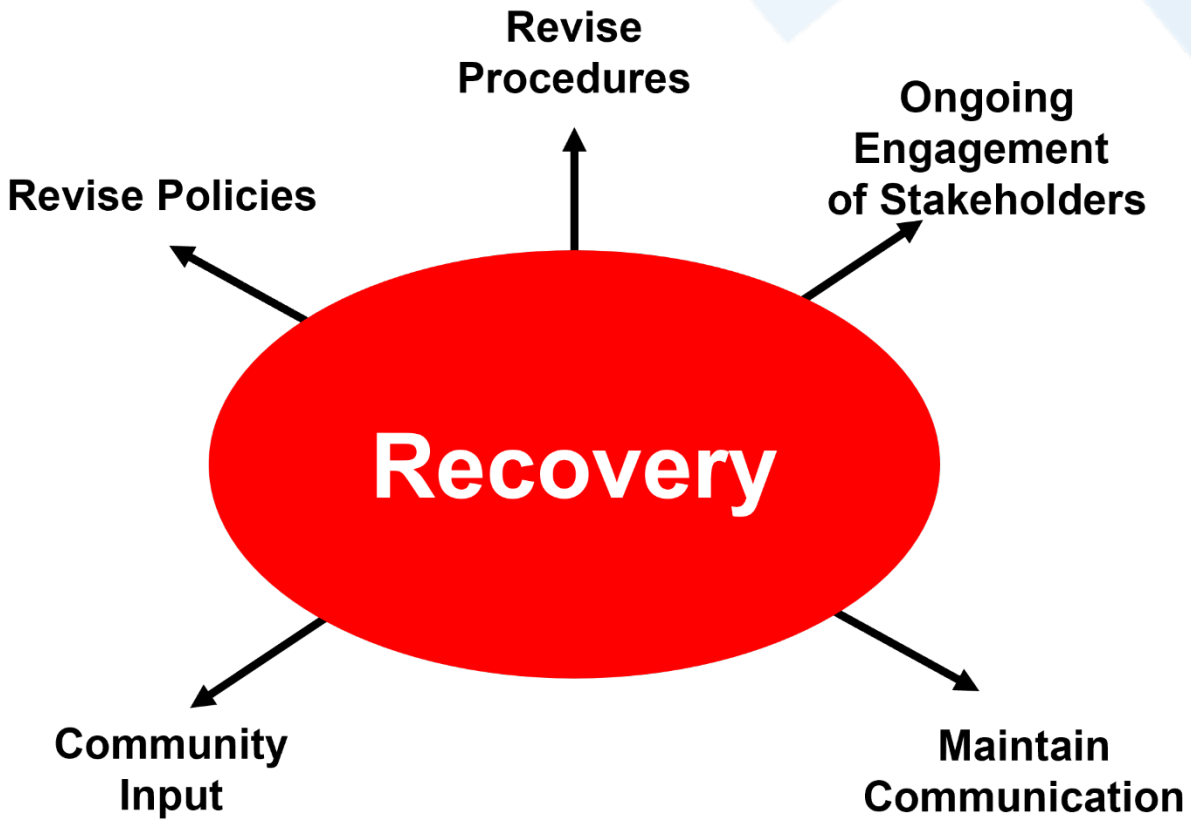


BI-DIRECTIONAL

- With whom?
- Why?
- How often?
- What methods?
- Who needs to know?
- Needed for engagement:
  - Action plans
  - Community input
  - Developing new approaches
  - Innovation and creating new:
    - Services
    - Collaborations
    - Networks

CONTINUOUS PROCESS OF:

- Collaboration
- Communication
- Coordination



SURVEILLANCE

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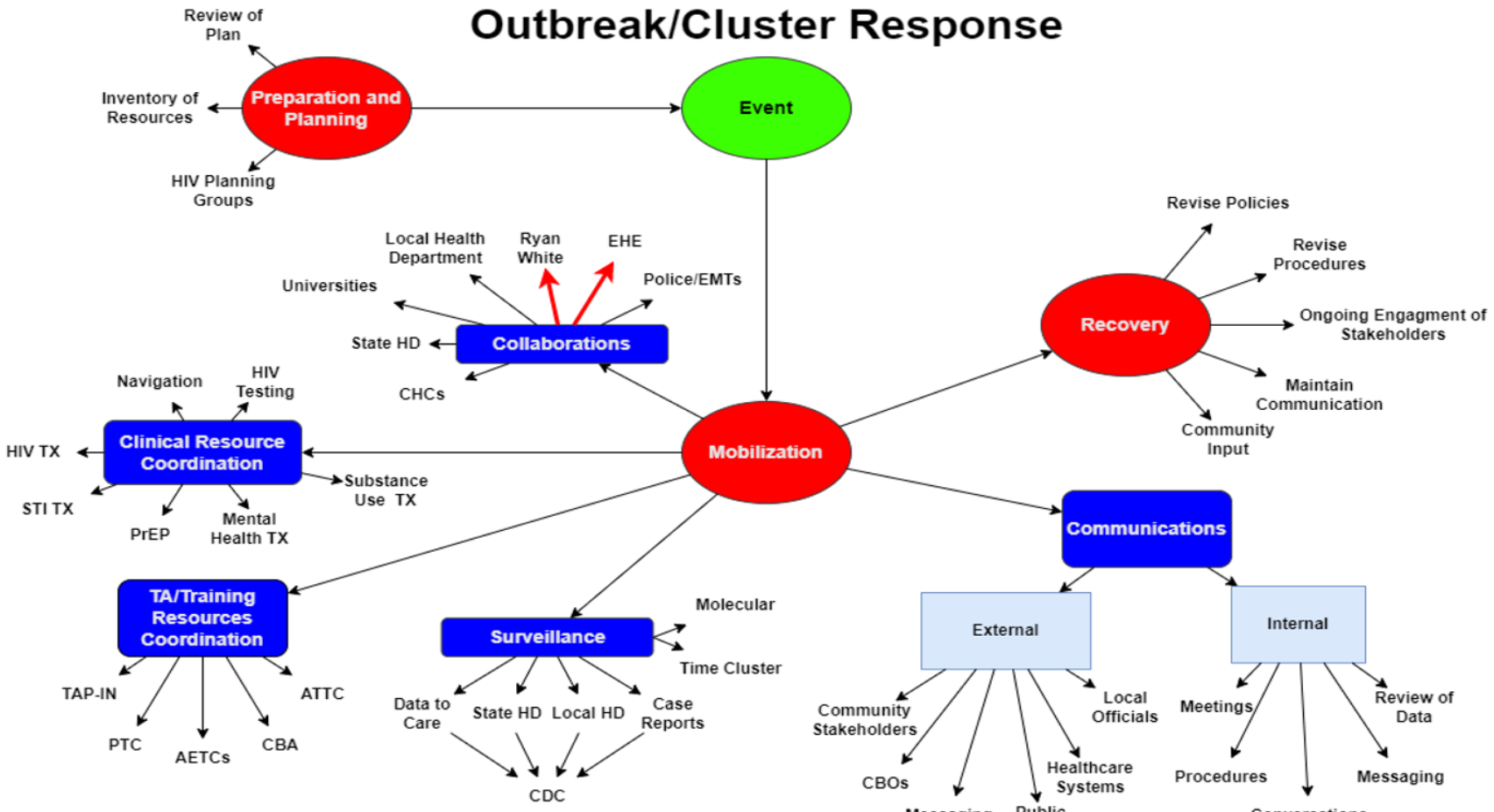


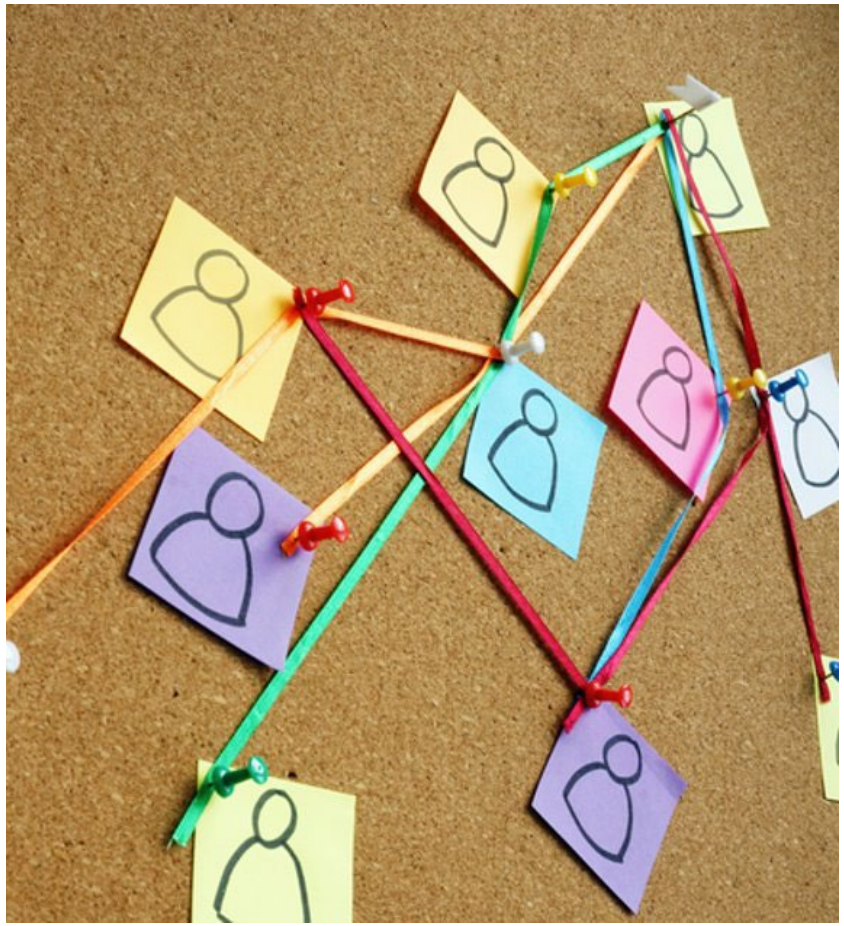
Community Engagement and Participation

L. Frank, 2023

Key Definitions and Components in Cluster Detection and Response

Philip Peters, MD, Medical Officer, Office of AIDS, California Department of Public Health

Definitions – Related Terms



Outbreak

An increase, often sudden, above what is normally expected in a population or area

Cluster

A group of people living with HIV who are connected by HIV transmission

From CDC's Detecting and Responding to HIV Transmission Clusters: A Guide for Health Departments, June 2018, V2.0

Definitions – Gray Areas

Outbreak

Difficult to identify early phase of an outbreak; HIV diagnosis can be delayed by several years from the time of infection

Often reserved for situations that require an escalated response

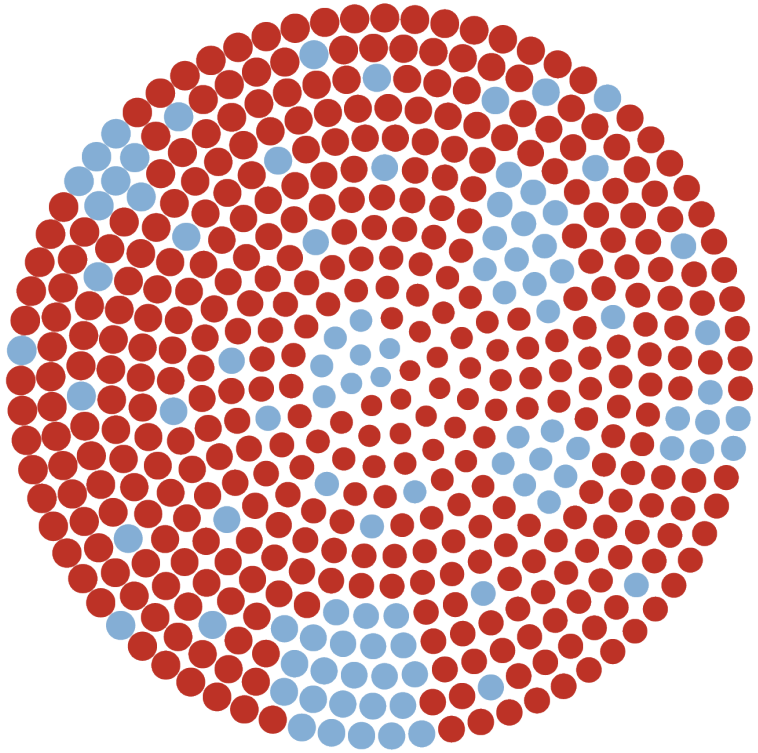
Cluster

Cluster investigation and response can detect early evidence of an outbreak and prevent progression to an outbreak

From CDC's Detecting and Responding to HIV Transmission Clusters: A Guide for Health Departments, June 2018, V2.0

HIV is Transmitted Through Networks

Transmission is not uniform



Identify networks with high HIV transmission levels

↓

Understand which services aren't meeting needs, and why

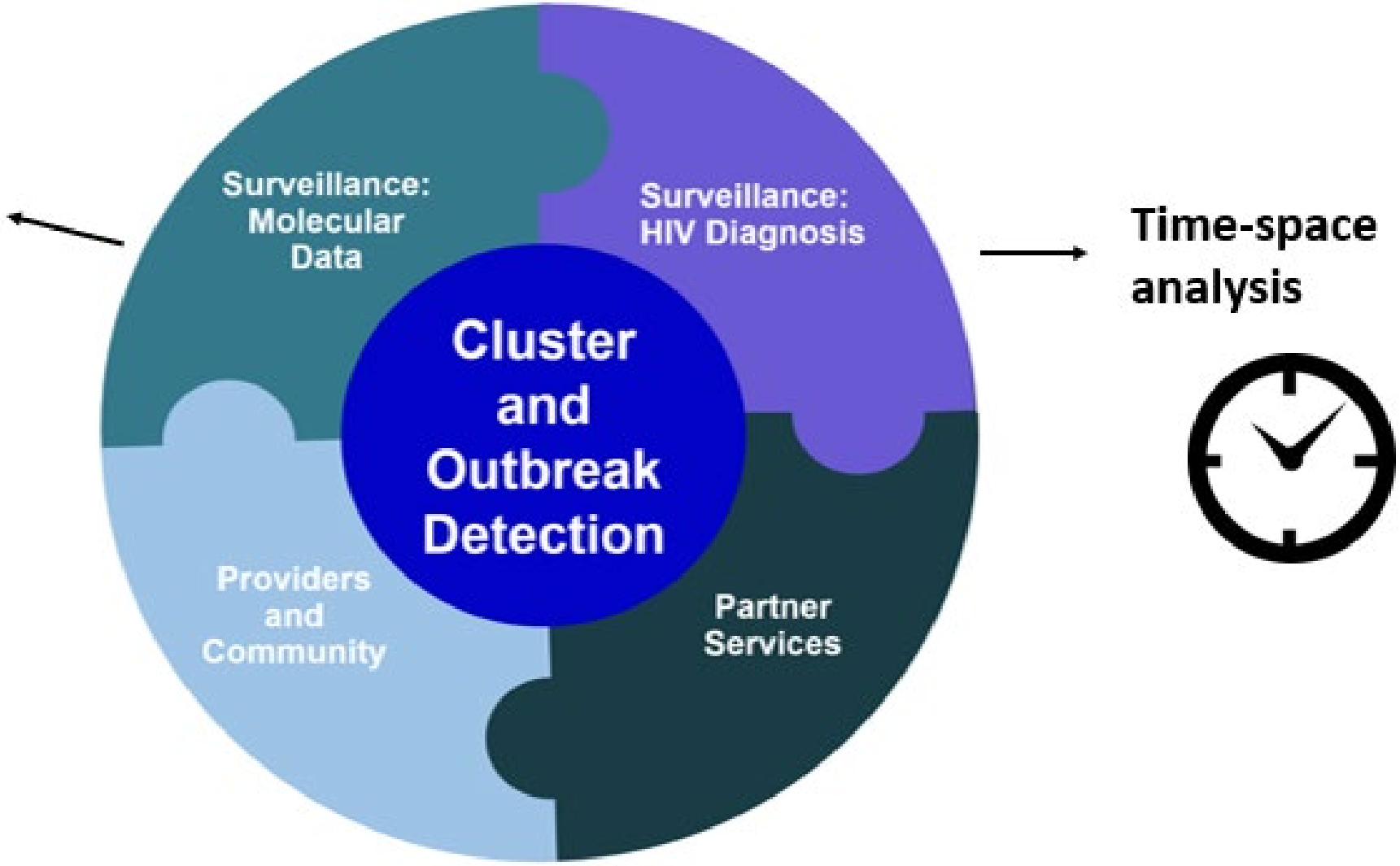
↓

Adapt services to meet people's needs and keep them healthy

Cluster and Outbreak Detection Activities

Molecular analysis

- Group of people with a similar or shared strain HIV
- Identified by comparing vi sequences



Cranston K et al. MMWR 2019

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Time Space Clusters

- Defined as a number of HIV diagnoses in a defined geographic area (usually county) in the previous 12 months that exceeds the 3-year average by > 2 standard deviations
- Evaluated for all HIV diagnoses and among specific populations, e.g.:
  - People who inject drugs
  - Women of reproductive age
- Reviewing surveillance data in “near” real-time with electronic lab reports instead of waiting for clean but delayed surveillance reports
- Time-space increases may indicate a single transmission cluster or multiple, smaller transmission clusters

HIV Time Space Alerts Summary 2022

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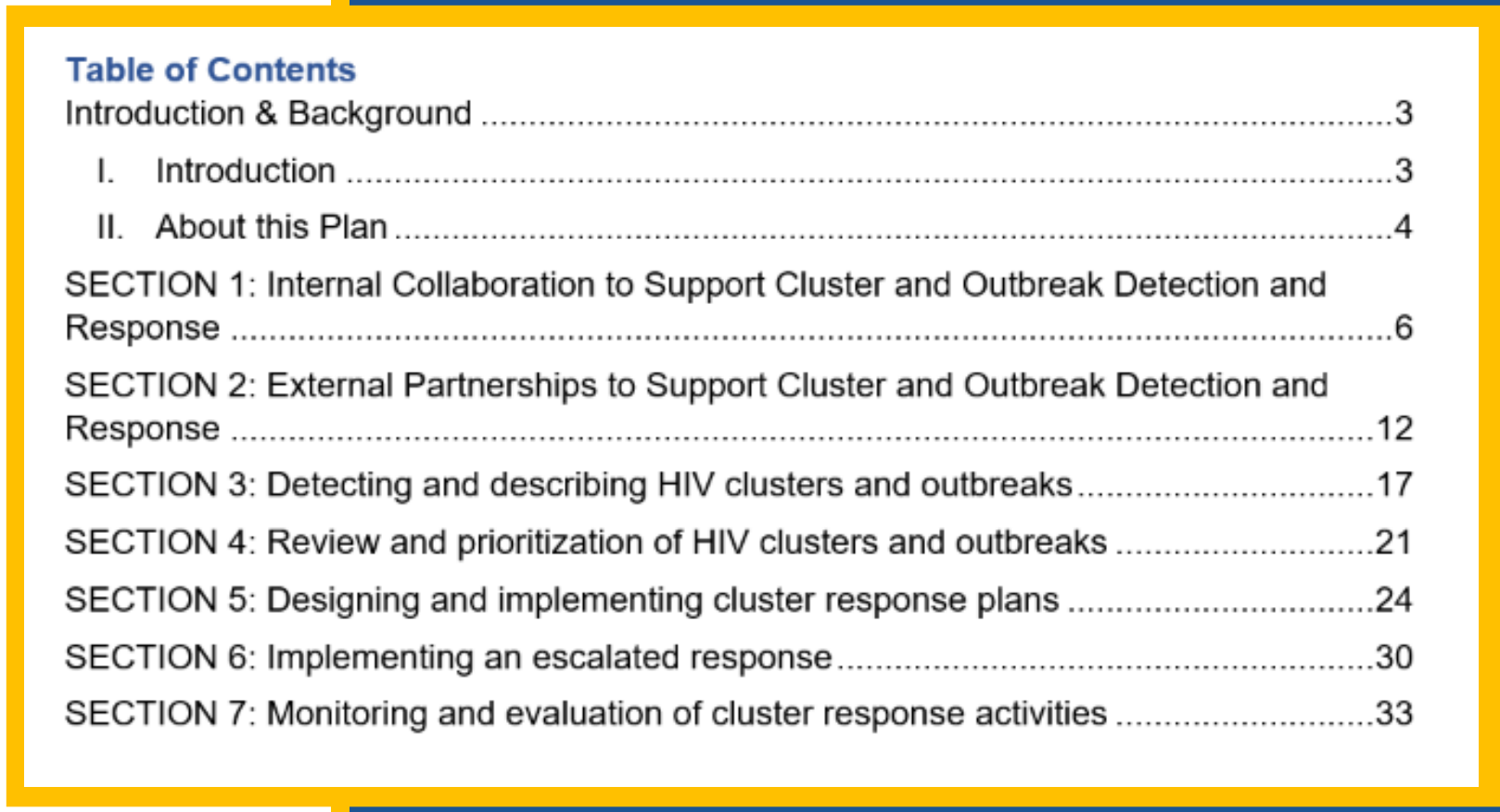
Key Components and Considerations for a Cluster Detection and Response Plan

Cluster Detection and Response Plan

- Identifying clusters is only the first step
- A cluster and outbreak response plan can outline a general approach



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Community Advisory Board

- **Community concerns raised with respect to data security, consent, HIV criminalization and stigma training**

- **Initial meeting January 24th, 2023**
  - 10 members
  - Meeting quarterly
  - Participating health departments: CDPH, Los= Angeles, San Francisco

- **Quarterly meetings, 2-year terms**

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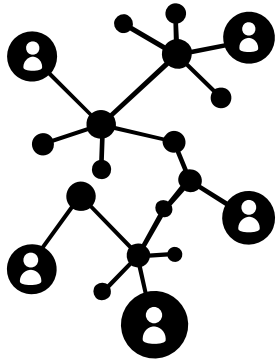
Health Departments are Using a Variety of Approaches to Help Understand Networks

Review of Existing Health Department Data



Partner Services Expansion

Peer Recruitment

Quantitative Data Collection

Qualitative Data Collection

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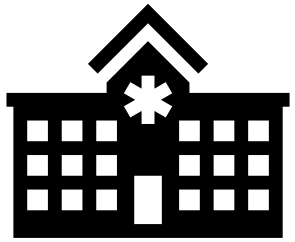
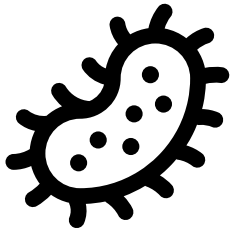
Health Departments are Implementing a Variety of Response Interventions

Expanded HIV Testing

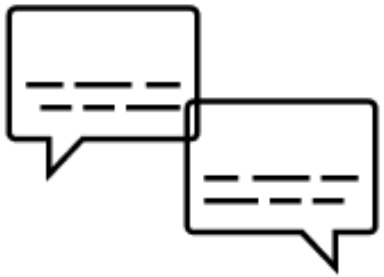


HIV and Other Medical Care Expansion

PrEP Expansion



Syndemic Approaches



Structural Interventions

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Immediate Client Centered Needs Prioritized

Examples of immediate needs:

- Comprehensive health insurance enrollment
- Linkage to care clinic
- Housing, nutrition, and transportation needs
- Open door for assistance with partner notification

Broad HIV Prevention Review also Necessary

Examples of new strategies to implement in a community:

- Routine Opt-Out HIV Testing in EDs
- ADAP support for HIV treatment and transition in jails
- HIV self-testing (mailed)
- Field investigator driven PrEP

Can Cluster Response Help People and Help End the Epidemics:

- Detect Outbreaks
  - Particularly among people who inject as susceptible to rapid transmission and opportunities for rapid, highly effective prevention
- Opportunities to link to care
  - U = U; Treatment as Prevention
  - Long-term health
- Understand and respond to failures in HIV prevention
  - Identify gaps in HIV prevention that occurred
  - Tailor services and approach to preventions to meet people more effectively

Lessons Learned

State Level

- Real-time data reviews to inform= program
- Open communication and rapid data= sharing with county partners
- Deeper dives into drivers of new HIV= infection
- Some surprising/unexpected=findings
- Investigations help identify gaps in= prevention and care
- Cluster alerts are an opportunity to= address health differences

County Level

- Additional opportunity for linkage to care, data to care
- Local partnerships
  - Housing
  - RWHAP Recipients
- In interviews, make leaving the door open standard
- Use Information on where/how clients meet partners for media campaigns

West Virginia Experience

Carolyn Kidd, RN, ACRN
Clinical Nurse Educator, West Virginia University Department of Medicine West Virginia Regional Partner, MidAtlantic AIDS Education & Training Center (MAAETC)

THIS IS AN OFFICIAL WEST VIRGINIA HEALTH ADVISORY NUMBER WV155-03-22-19
Distributed via the WV Health Alert Network – March 22, 2019

WEST VIRGINIA Department of Health & Human Resources BUREAU FOR PUBLIC HEALTH

HEALTH ADVISORY #155

Increase in New HIV Infections Among Persons Who Inject Drugs

TO: **West Virginia Healthcare Providers, Hospitals, and other Healthcare Facilities**

FROM: **Catherine Slemp, MD, MPH, Commissioner and State Health Officer**
West Virginia Department of Health and Human Resources, Bureau for Public Health

DATE: **March 22, 2019**

LOCAL HEALTH DEPARTMENTS: Please distribute to community health providers, hospital-based physicians, infection control preventionists, laboratory directors, and other applicable partners.

OTHER RECIPIENTS: Please distribute to association members, staff, etc.

The West Virginia Bureau for Public Health is investigating an increase in newly diagnosed human immunodeficiency virus (HIV) cases in the state among persons who inject drugs (PWID). Historically, male-to-male sexual contact has been the predominant reported risk factor for becoming infected with HIV. Since 2018, we have seen an increase in the number of newly diagnosed cases of HIV with injection drug use (IDU) reported as a risk factor statewide.

Since January 2019, the Bureau for Public Health has been actively investigating an increase in newly diagnosed cases of HIV among PWID in Cabell County. Based on a five-year average (2013-2017), the expected number of HIV diagnoses for all reported risk factors in Cabell County per year is eight. In 2018, a total of 17 PWID were diagnosed with HIV in Cabell County, including seven diagnosed in the 4th quarter of 2018. Since January 1, 2019, an additional 13 PWID have been diagnosed in Cabell County, bringing the total number of new diagnoses among PWID to 30 since January 1, 2018. Public health partnerships are critical to preventing outbreaks of HIV. Your efforts and collaboration with the Bureau for Public Health will continue to prevent further infections and provide a healthier future for our communities.

We encourage all healthcare providers, hospitals and other healthcare facilities throughout West Virginia to:

- Screen all patients for history of injection drug use. All persons who inject drugs should be:
  - Tested for HIV, hepatitis C virus (HCV), hepatitis B virus (HBV), syphilis, gonorrhea and chlamydia at least once a year.
  - Encouraged to refer their sex or needle sharing partners for testing.
  - Referred to harm reduction programs where available.
  - Provided education about safe injection practices.
  - Provided or referred to substance use disorder treatment, including medication-assisted treatment (e.g. behavioral health services and support combined with methadone, buprenorphine, or naltrexone).
  - Referred for pre-exposure prophylaxis (PrEP) if at high-risk for sexual transmission of HIV. More information on PrEP is available at https://www.cdc.gov/hiv/risk/prep.

West Virginia Experience

THIS IS AN OFFICIAL WEST VIRGINIA HEALTH ADVISORY NUMBER WV162-10-09-19
Distributed via the WV Health Alert Network –

WEST VIRGINIA Department of Health & Human Resources
BUREAU FOR PUBLIC HEALTH

HEALTH ADVISORY #162

Human Immunodeficiency Virus (HIV) Infections Among People Who Inject Drugs -- Additional Area Seeing Increase, Others Vulnerable

TO: **West Virginia Healthcare Providers, Hospitals, and other Healthcare Facilities**

FROM: **Catherine Slemp, MD, MPH, Commissioner and State Health Officer**
West Virginia Department of Health and Human Resources, Bureau for Public Health

DATE: **October 9, 2019**

LOCAL HEALTH DEPARTMENTS: Please distribute to community health providers, hospital-based physicians, infection control preventionists, laboratory directors, and other applicable partners.

OTHER RECIPIENTS: Please distribute to association members, staff, etc.

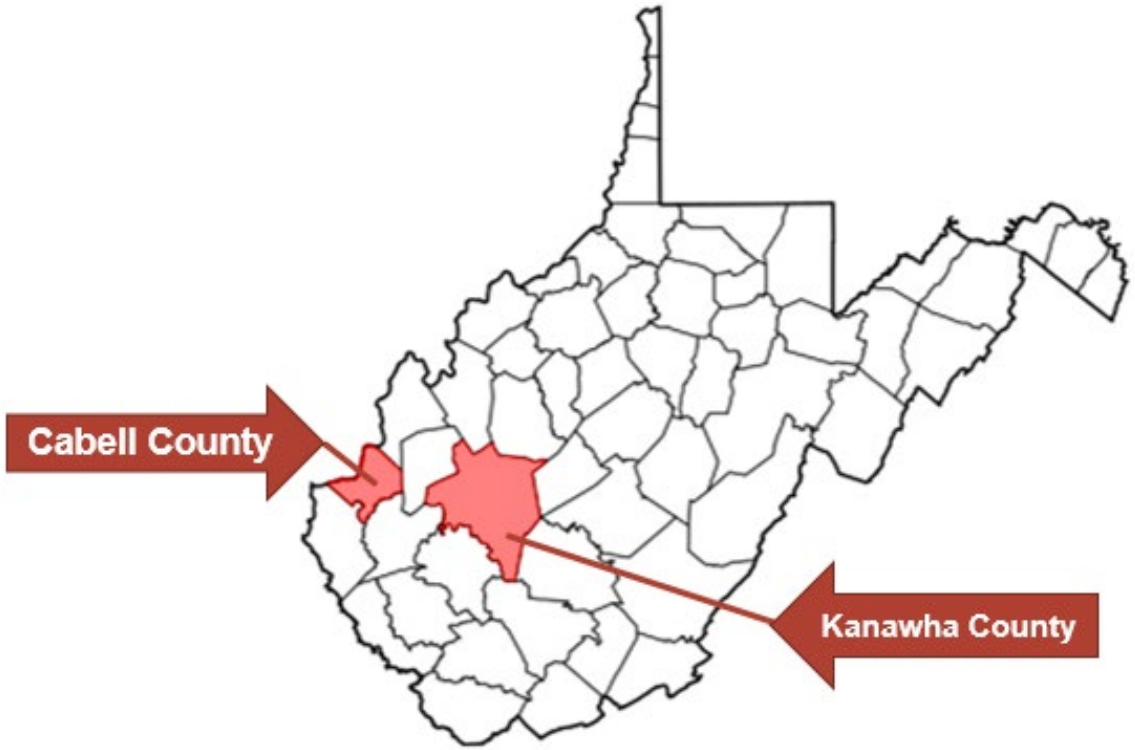
HIV has long been present across West Virginia, although at low levels. With the state's opioid and now broader substance use epidemic, West Virginia has been increasingly vulnerable to HIV outbreak(s) among persons who inject drugs (PWID). The sharing of injection drug equipment as well as high-risk sexual practices associated with substance use generate this vulnerability.

The West Virginia Bureau for Public Health (BPH) actively monitors HIV diagnoses across the state and works with local and federal partners to prevent, investigate and respond to increases. In addition to the Cabell County increase previously reported, BPH has now identified an increase in HIV diagnoses among PWID in Kanawha County (for more information visit www.hivawarewv.org). Although state and local health officials are still investigating, epidemiologic evidence suggests the increase in HIV among Kanawha County residents is distinct from the Cabell County cluster and indicates increased and recent local transmission (e.g., the Kanawha County increase is not simply an extension of the Cabell County cluster).

New HIV infections among PWID are clearly increasing in West Virginia. From 2014 to 2019, the proportion of new HIV diagnoses in West Virginia attributable to injection drug use (IDU) has increased over five-fold from 12.5% to 64.2%, primarily driven by the Cabell County and now Kanawha County increases. The emergence of HIV among PWID in more than one part of the state and the vulnerability of other West Virginia counties to HIV transmission indicate that enhanced surveillance and prevention activities are warranted statewide. **As a result, the BPH is asking all healthcare providers to increase vigilance for potential HIV infection, especially among PWID, to increase testing, to encourage prevention efforts, and to rapidly report new HIV infections to BPH. Prevention, prompt identification of cases and linkage to care improves clinical outcomes and is critical to reducing HIV transmission.**

West Virginia Experience

HIV Cluster Confirmed in West Virginia Among Injection Drug Users



- Initial HIV cluster of 28 patients, with 117 related to IDU confirmed in Cabell County, WV of the total 125 known cases as of 08/12/2021
- Initial HIV Cluster of 35 patients in Kanawha County (Charleston) of the 107 known cases as of 8/12/2021

West Virginia Experience:

Communication

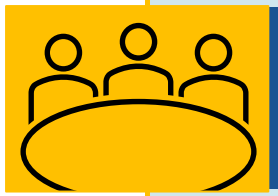
Critical communication pre outbreak

Knowing the community

Working with “influentials”

Building coalitions

Building trust



Convening groups

West Virginia Experience: Collaboration

- CDC partners on the ground
- Ryan White Part C
- Cabell County HD and WV DHHR
- Local Community Health Centers
- First Responders

- Participation in Opioid Steering Committee
- Marshall University Infectious Disease Physician
- Addiction Centers
- CBOs

West Virginia Experience: Coordination

- Participation in calls, meetings and working groups
  - Marketing relevant AETC trainings and TA
- Clinical preceptorships
- Rapid HIV Point Of Care testing
- Stigma training
- Linkage to care TA
- Offer to assist on outbreak response planning related to future outbreaks

HIV Diagnoses by County, West Virginia, 2020-2023

(As of January 25, 2023)

Note: DATA ARE PRELIMINARY AND SUBJECT TO CHANGE¥

County of residence at time of HIV diagnosis	2015-2019 Average No. of Cases per Year	2020		2021		2022		2023 Year to Date	
		Total Cases	Cases Reporting IDU^	Total Cases	Cases Reporting IDU^	Total Cases	Cases Reporting IDU^	Total Cases	Cases Reporting IDU^
Barbour	0	0	0	0	0	*	0	0	0
Berkeley	6	6	0	11	*	5	0	0	0
Boone	1	*	*	*	*	*	*	0	0
Braxton	0	*	*	*	*	0	0	0	0
Brooke	0	0	0	*	0	0	0	0	0
Cabell	21	45	45	33	32	55	51	*	*
Calhoun	0	0	0	0	0	0	0	0	0
Clay	0	0	0	*	0	0	0	0	0
Doddridge	1	*	*	*	0	0	0	0	0
Fayette	2	0	0	*	*	0	0	0	0
Gilmer	1	0	0	0	0	0	0	0	0
Grant	1	0	0	0	0	*	0	0	0
Greenbrier	1	*	*	0	0	*	0	0	0
Hampshire	0	*	*	*	*	0	0	0	0
Hancock	0	0	0	0	0	*	0	0	0
Hardy	1	0	0	*	*	*	0	0	0
Harrison	2	*	0	*	*	*	*	*	0
Jackson	1	0	0	*	*	0	0	0	0
Jefferson	2	*	0	*	*	*	0	0	0
Kanawha	17	45	41	55	46	30	22	*	0
Lewis	1	0	0	0	0	0	0	0	0

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West Virginia Experience:

Challenges

- Limited HIV, hepatitis, addictions and psychiatric expertise
- Rural site may or may not have high speed internet
- Lack of importance/urgency by rural providers to increase HIV testing
- Time constraints, increased caseloads, staffing reduction reimbursement issues

West Virginia Experience:

Challenges

- Stigma related to HIV, Substance Use Disorder
- Limited expertise in prevention technology and models
- Limited resources for release time for staff training

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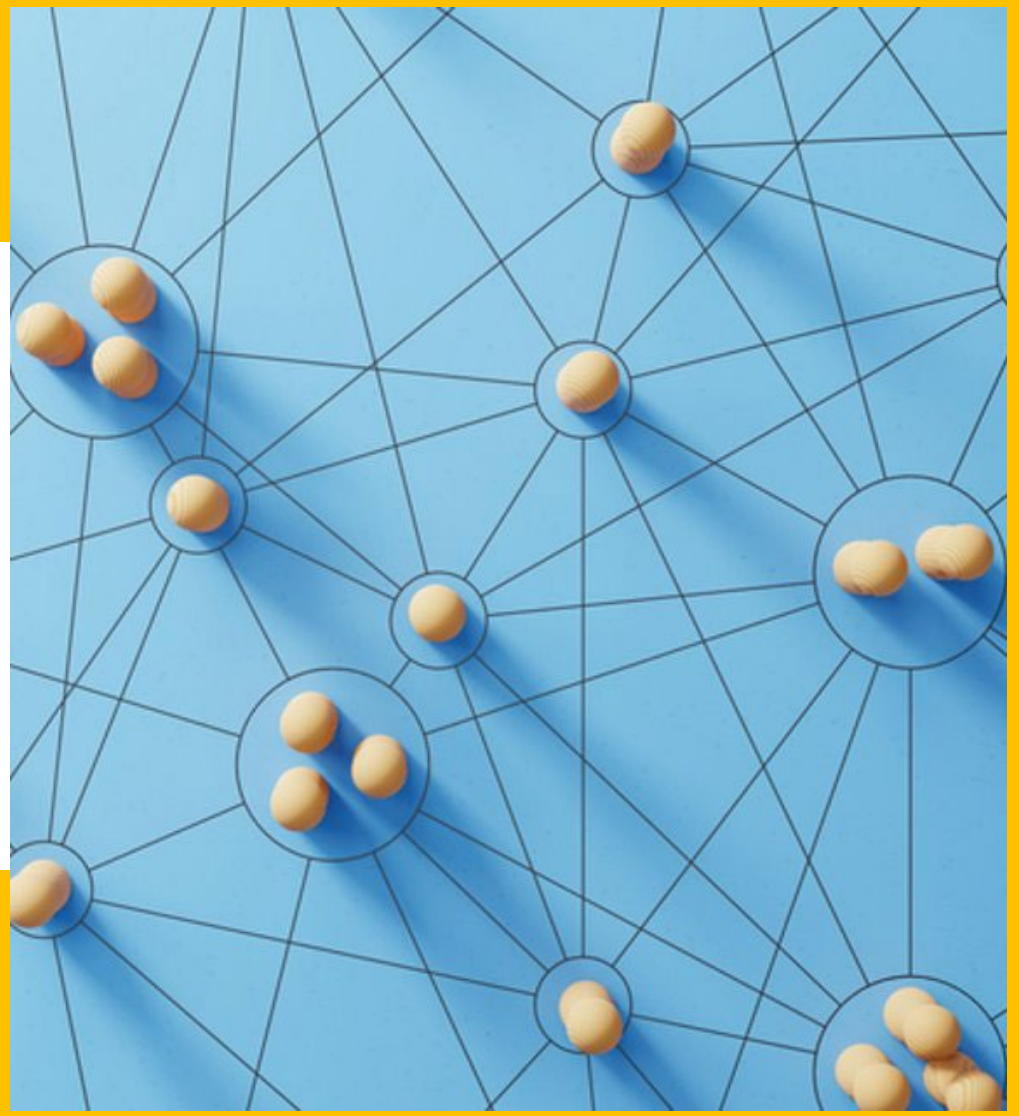

What We Can Do For You

TA for Cluster Response

- Review and offer ways to strengthen your CDR Plan
- Facilitate understanding of staff roles in cluster response
- Provide tools to support response to active clusters
- Learning Collaboratives

How to Request TA

Email: tap-in@caiglobal.org

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Question and Answer

Thank You

WE WANT TO HEAR FROM YOU!

To complete our evaluation, you must be registered for this webinar.

If you have not registered, please register using the link in the chat.

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