



HIV Cluster Detection and Response Institute 101: Connecting Data, Partners, and Programs to Close Gaps

2022 National Ryan White Conference on HIV Care and Treatment

August 23, 2022

Vision: Healthy Communities, Healthy People



Presenters

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- **Camden Hallmark, PhD, MPH**, Detection and Response Branch, DHP, CDC
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- **Mary-Grace Brandt, PhD, MPH**, Michigan Department of Health & Human Services



Susan Robilotto has no relevant financial interests to disclose.
Alexa Oster has no relevant financial interests to disclose.
Camden Hallmark has no relevant financial interests to disclose.
Katie Macomber has no relevant financial interests to disclose.
Mary-Grace Brandt has no relevant financial interests to disclose.

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Agenda

- Background on HIV cluster detection and response, Ending the HIV Epidemic (EHE) in the U.S. Response Pillar
- How cluster and outbreak response can lead to community-centered, tailored interventions
- Concerns related to cluster detection and response activities
- Collaboration opportunities for CDC-funded entities and RWHAP recipients to strengthen community engagement
- Implementation of cluster detection and response activities



Learning Objectives

- Explain the key elements of HIV cluster detection and response
- Provide examples of community-centered, tailored interventions to respond to HIV clusters
- Describe potential community engagement strategies to address concerns related to HIV cluster detection and response.

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/AIDS, pregnant women, mothers and their families, and those otherwise unable to access quality health care

HRSA's HIV/AIDS Bureau Vision and Mission

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 outcomes 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.



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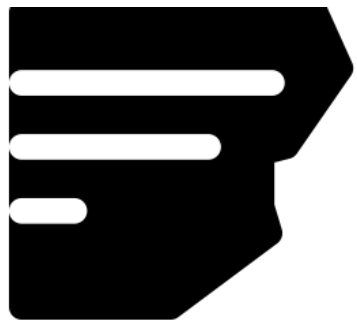


Cluster detection and response (CDR) offers a framework to guide tailored implementation of proven HIV prevention strategies where transmission is occurring most rapidly



Why is Responding to Clusters Important?

Standard Treatment & Prevention Services



**Cluster
Detection and
Response**

Tailored Treatment & Prevention Interventions



Ending the HIV Epidemic: Response Guides Other Strategies



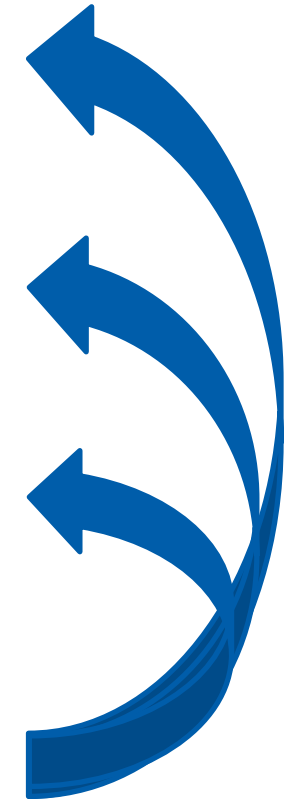
Diagnose all people with HIV as early as possible.

Treat people with HIV rapidly and effectively to reach sustained viral suppression.



Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs).

Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.

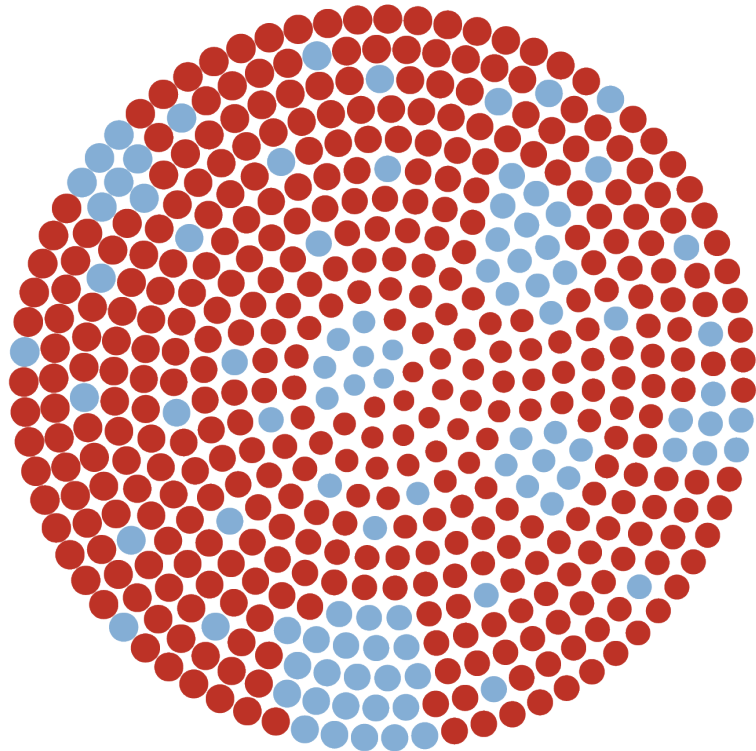




How Are Clusters Detected?

HIV Is Transmitted Through Networks

Transmission is not uniform

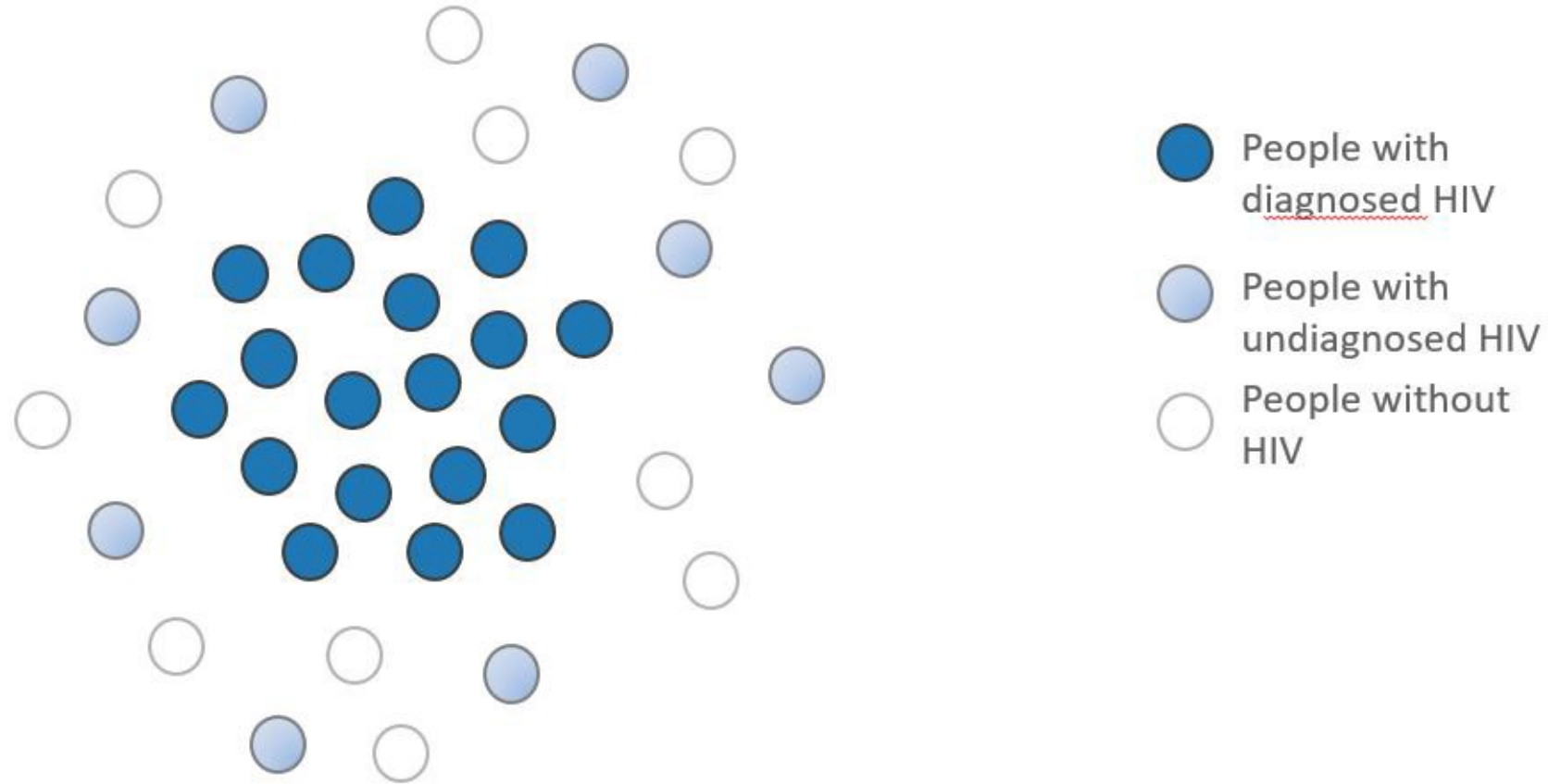


Identify networks in which HIV is spreading quickly

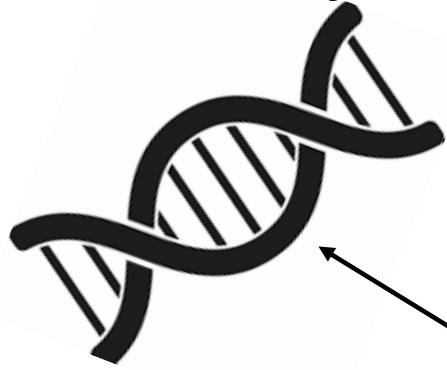


Help people get into care and prevent HIV

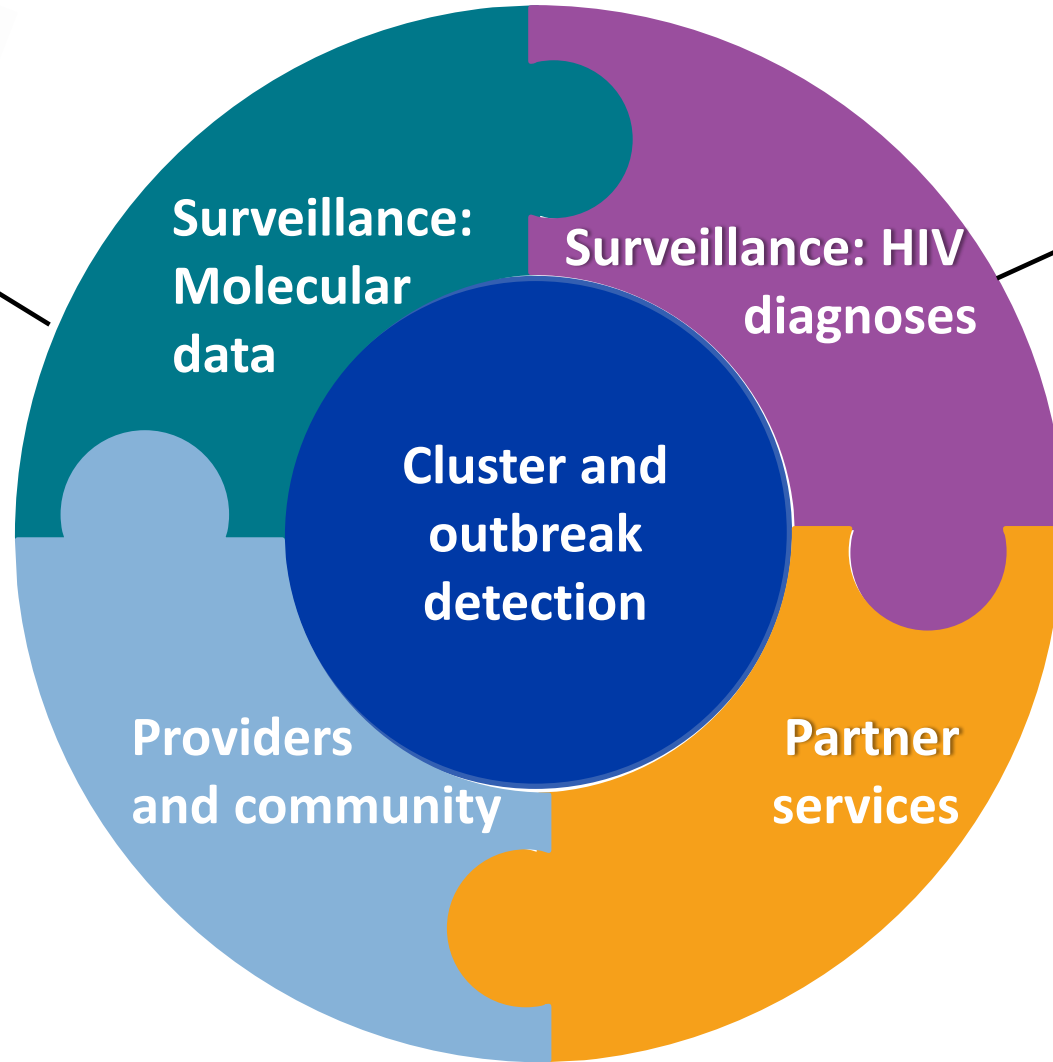
Networks Include People With and Without HIV



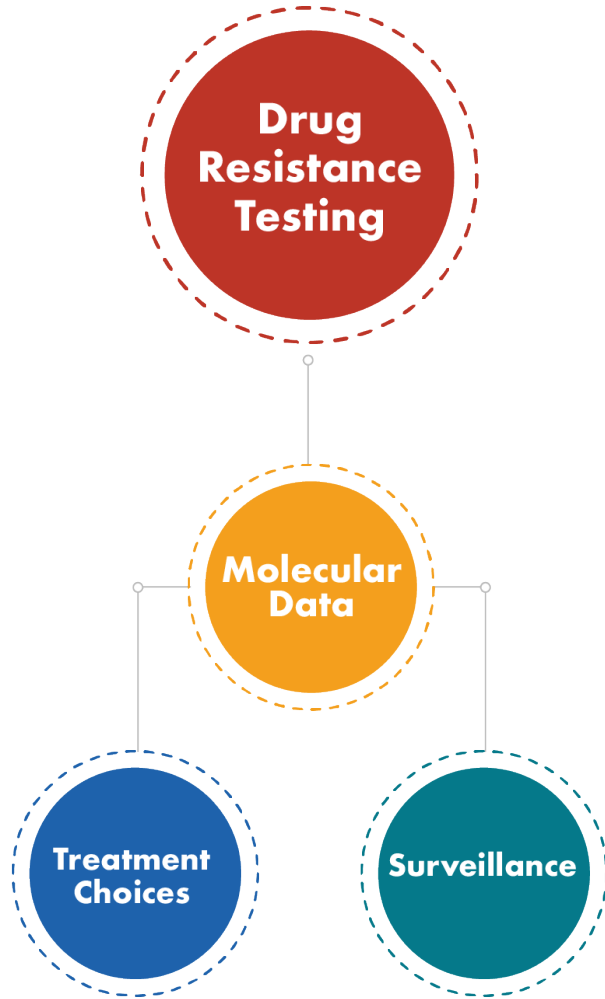
Molecular analysis



Time-space analysis

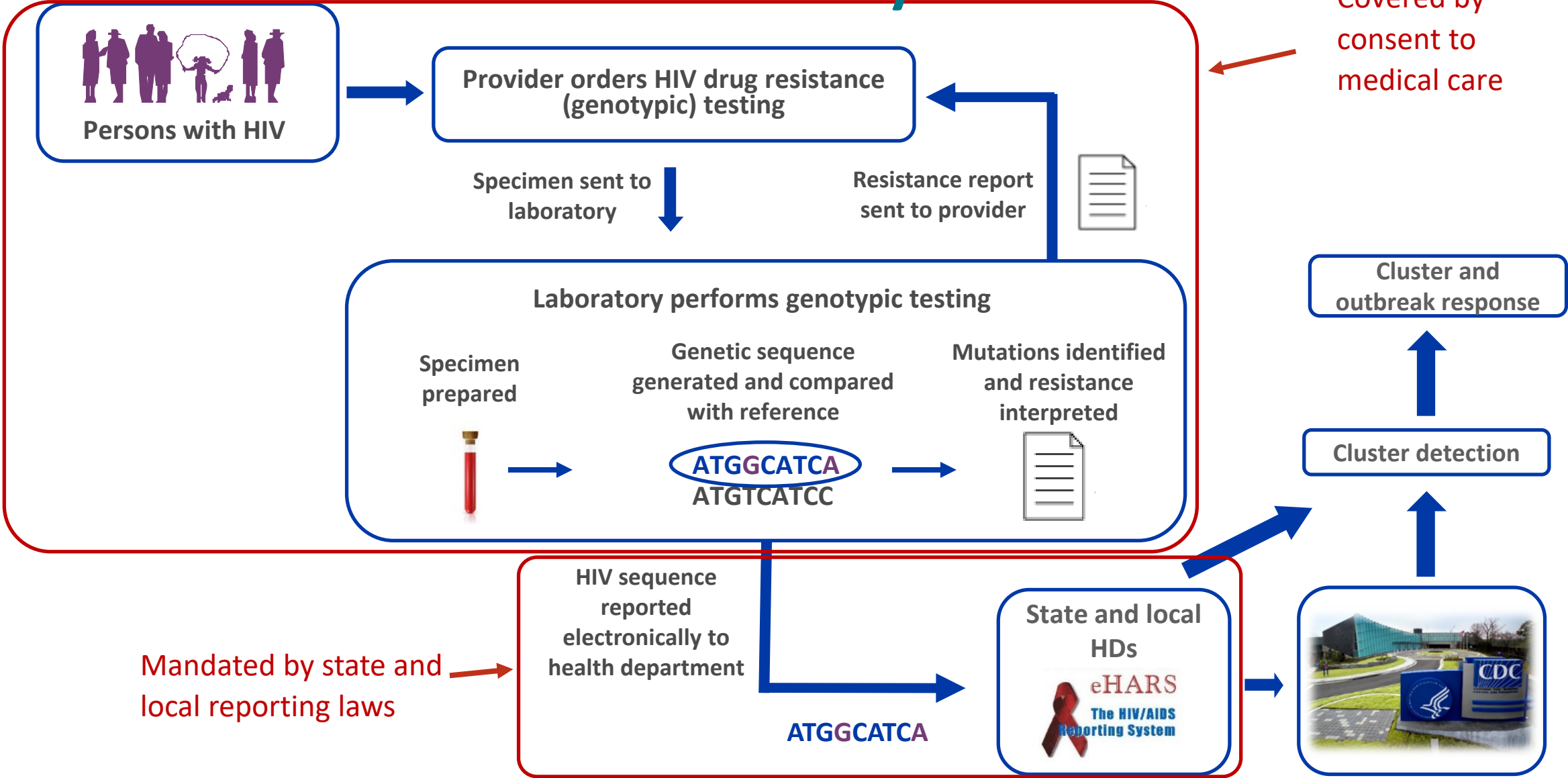


HIV Molecular Data Usually Come from Drug Resistance Testing



- Standard part of clinical care in many developed nations
- Public health agencies can conduct secondary data analysis

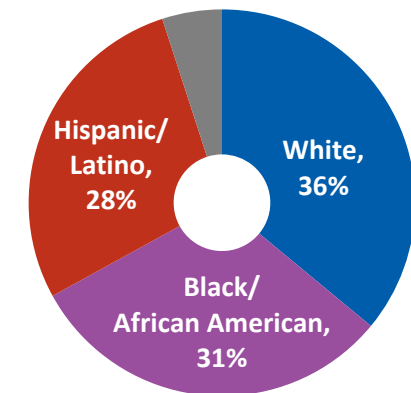
How is molecular data collected by the National HIV Surveillance System?



HIV Clusters and Outbreaks Affect Many Different Populations

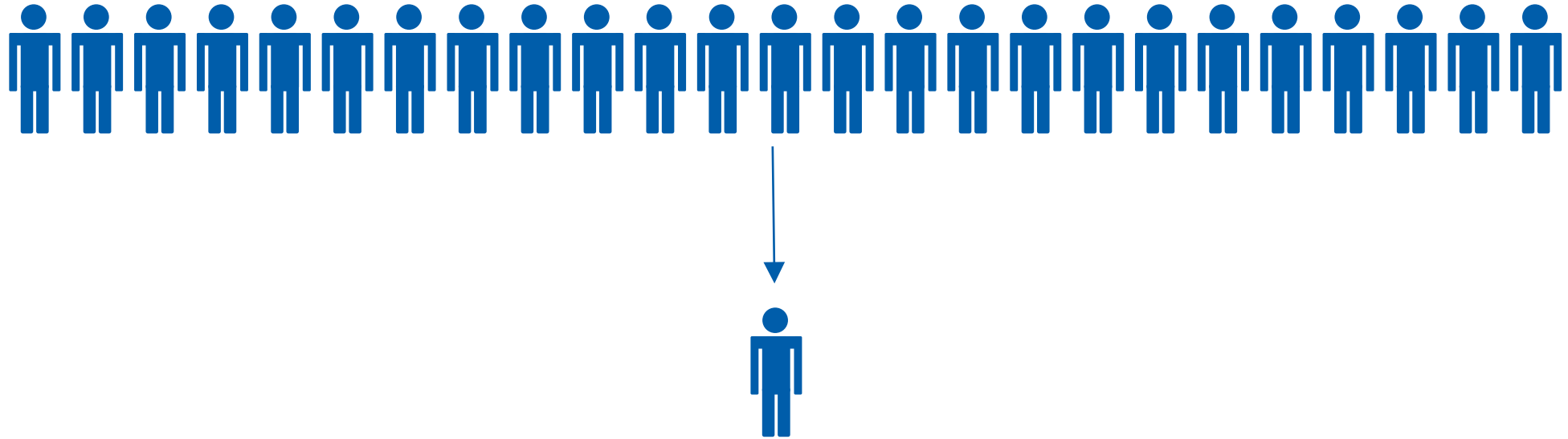
- Outbreaks among people who inject drugs have been highly visible in recent years
- Sexual transmission is the mode of HIV transmission for >75% of people in molecular clusters of rapid transmission
 - 3/4 of large clusters (>25 people) were primarily among gay and bisexual men
- Clusters affect diverse racial/ethnic groups
- It is important to use cluster detection and response to improve services for all populations experiencing rapid transmission

People in clusters of rapid transmission



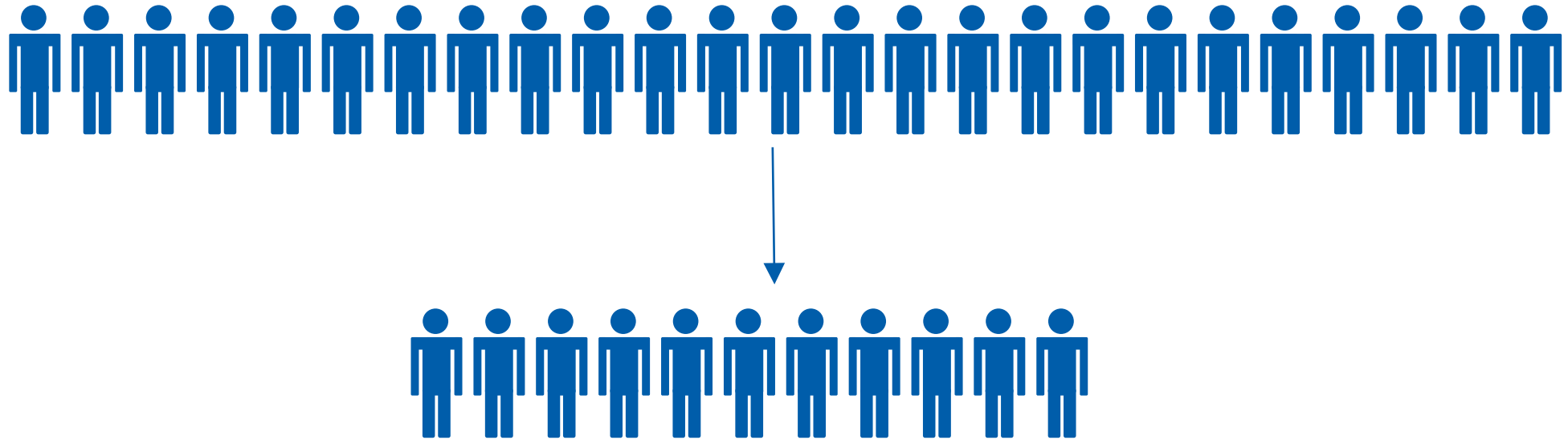
HIV Transmission Rate in the United States

4 transmissions per 100 people living with HIV per year



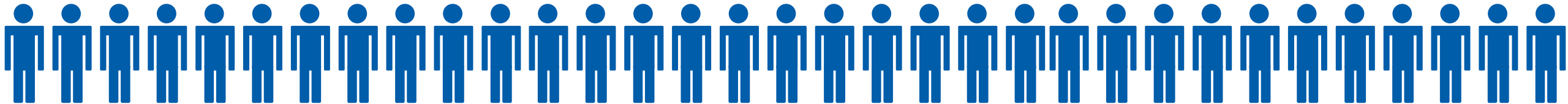
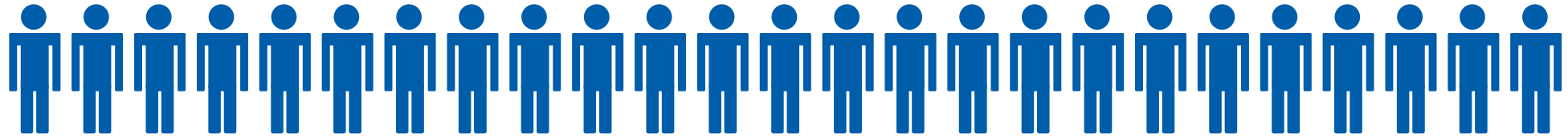
HIV Transmission Rate in First 60 Priority Molecular Clusters

44 transmissions per year per 100 persons living with HIV



HIV Transmission Rate in Some Clusters Is Even Higher

134 transmissions per year per 100 persons living with HIV





Core Strategies for Cluster Detection and Response

Core Cluster Detection and Response Strategies

Fundamental Building Blocks

- Internal partnerships
- External partnerships and community engagement
- High-quality, timely data
- Data integration
- Flexible funding

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Investigate and Intervene in Networks

- Understand networks
- Support linkage to and retention in critical services

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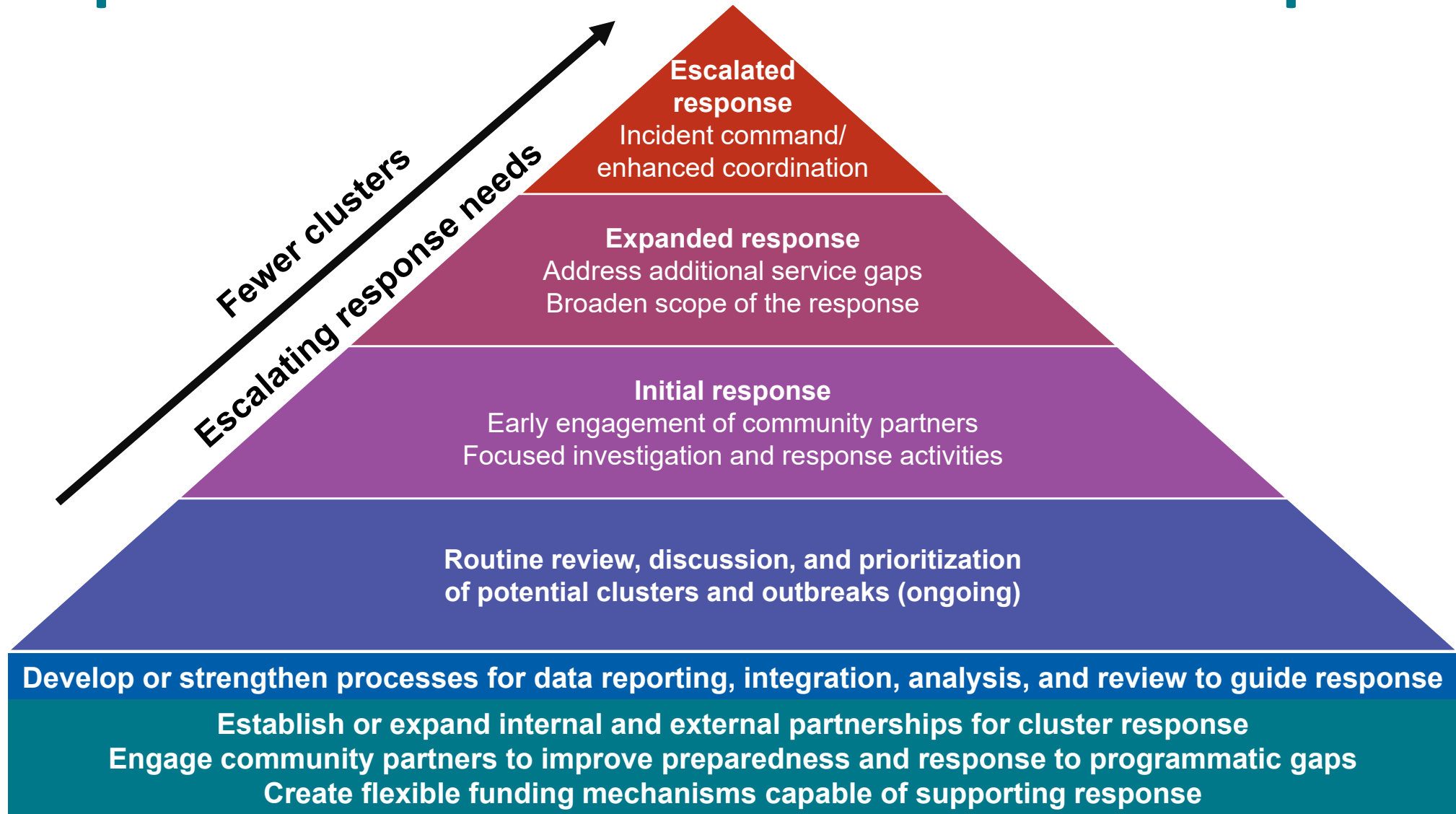
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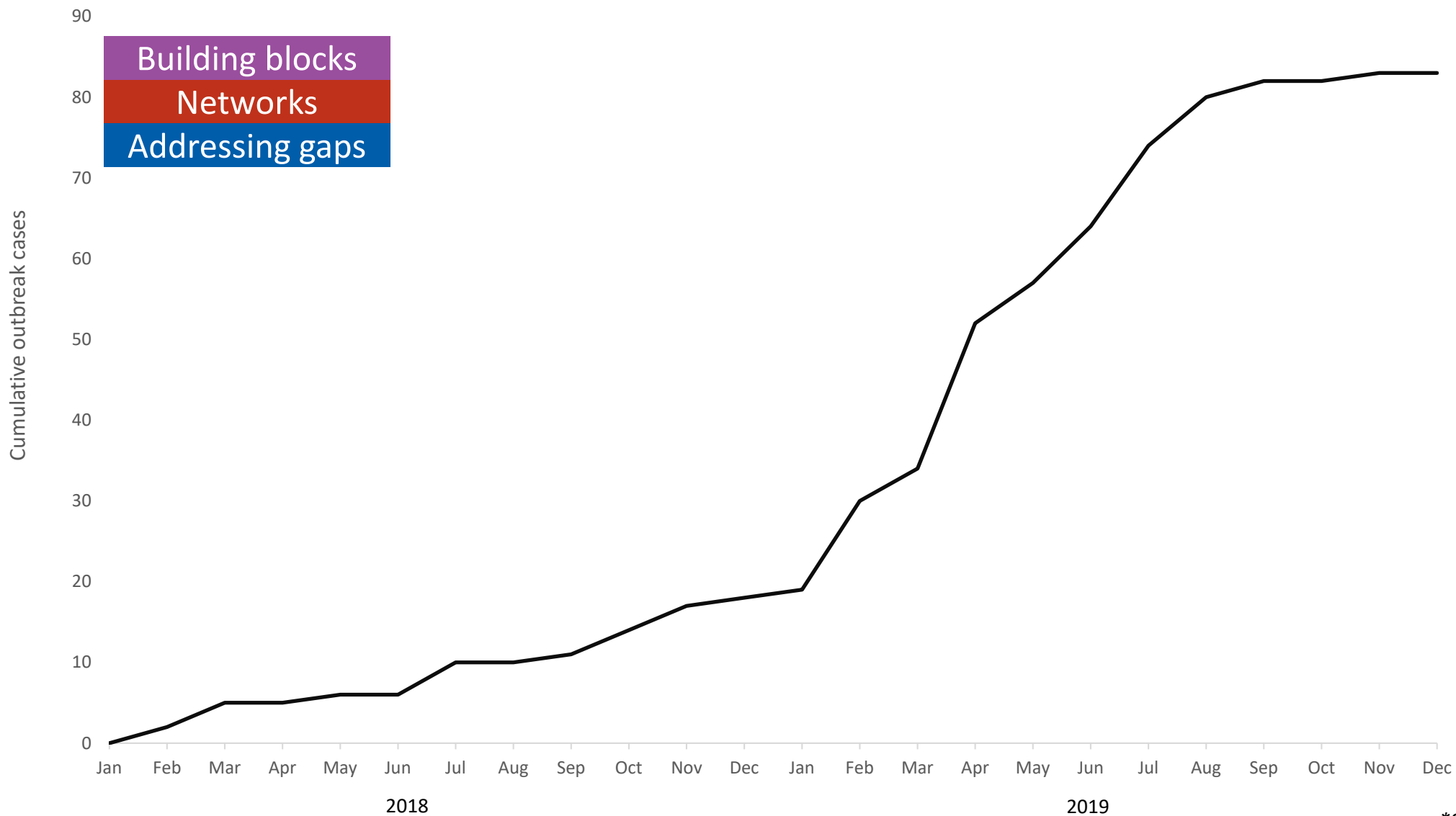
Identify and Address Gaps in Programs and Services

- Identify and swiftly address gaps
- Use cluster information to guide future activities

The Spectrum of Cluster Detection and Response

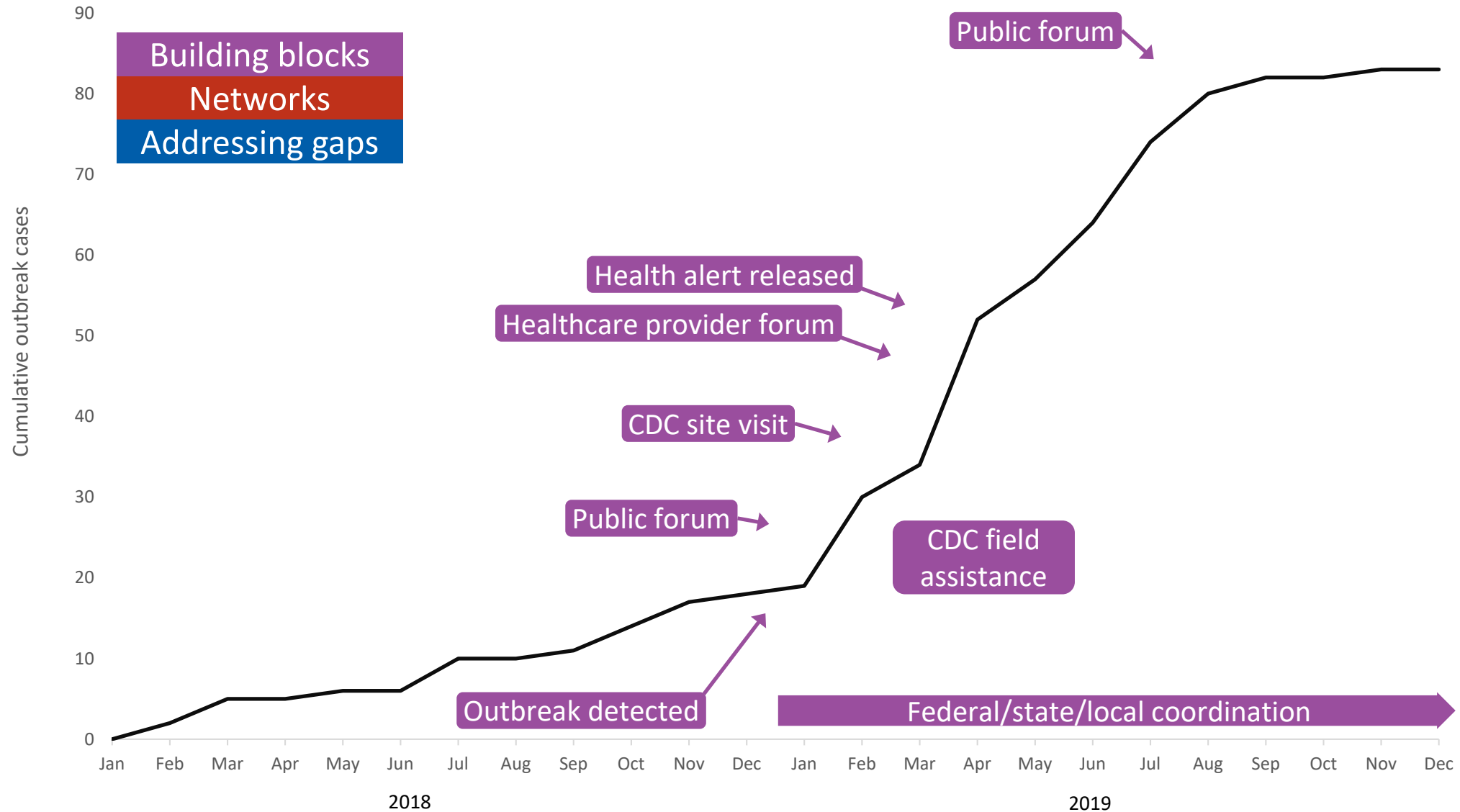


2019 HIV Outbreak in Cabell County, WV



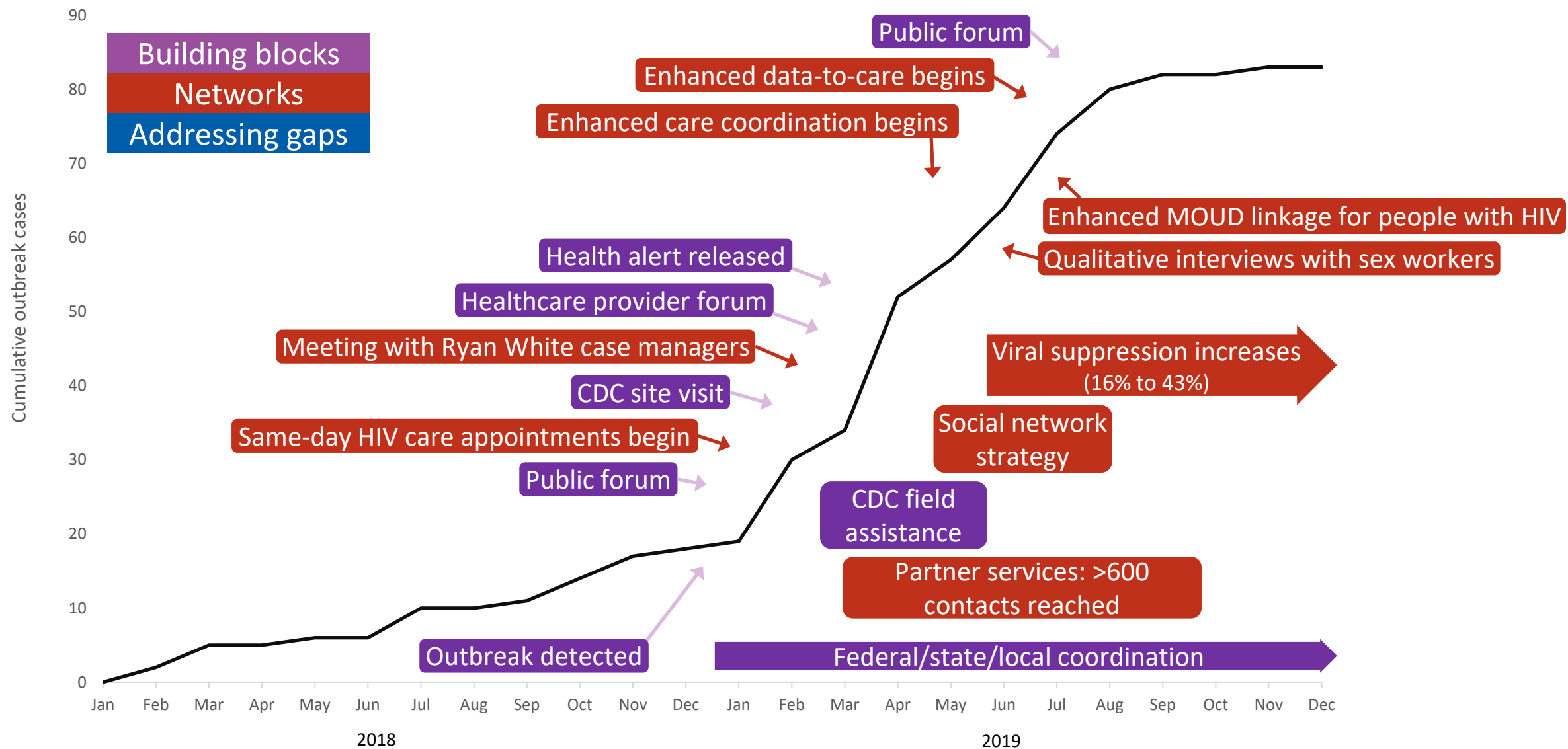


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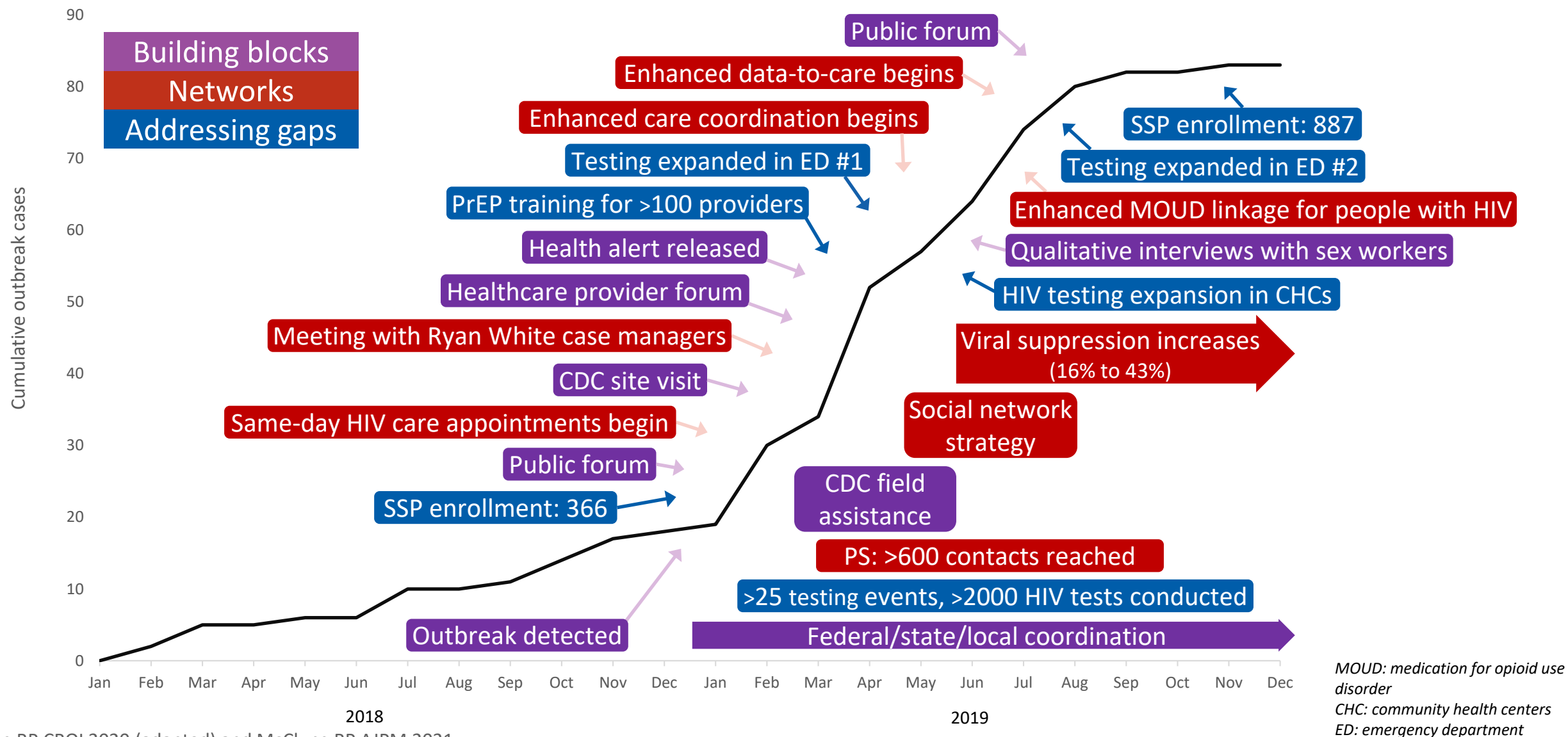


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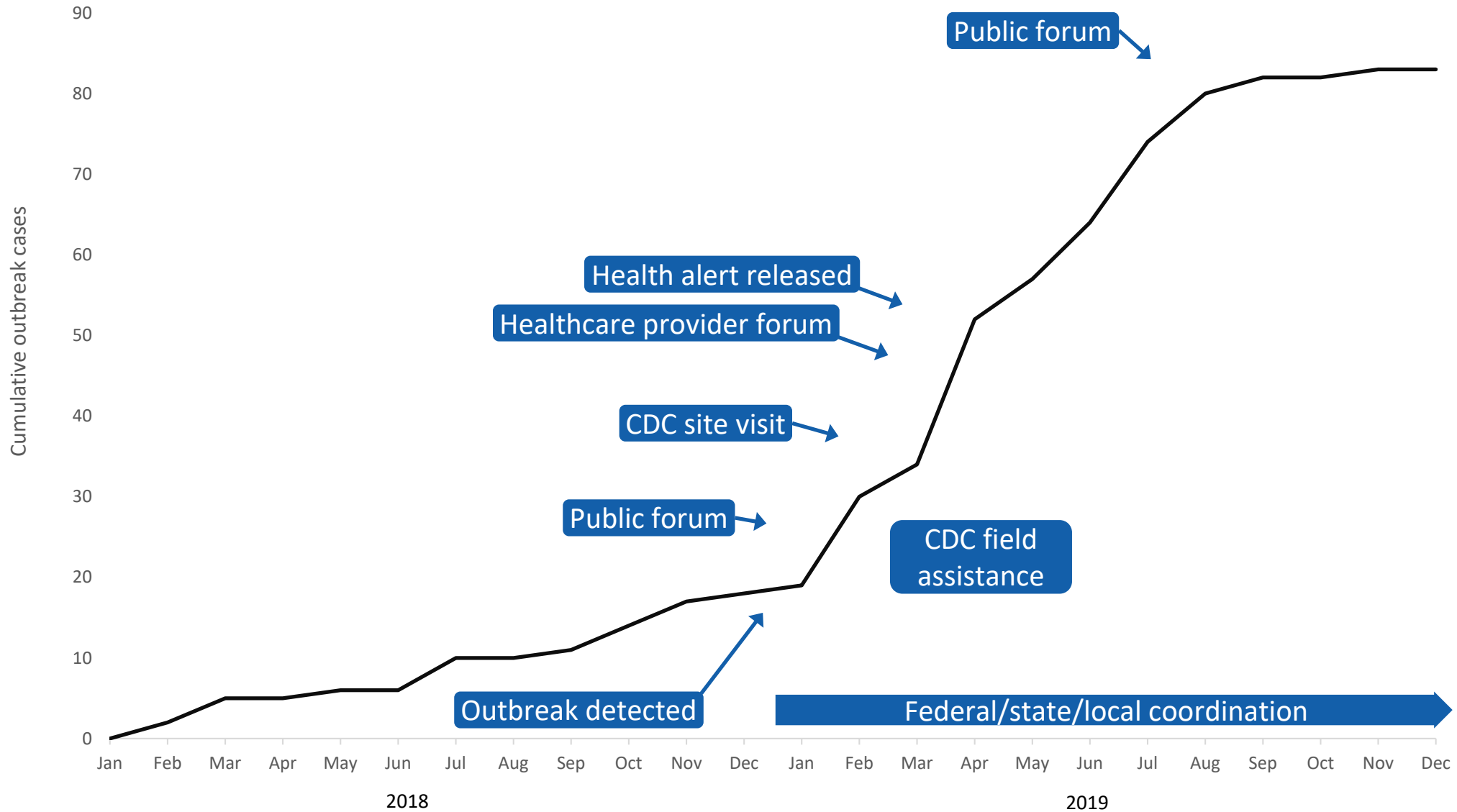




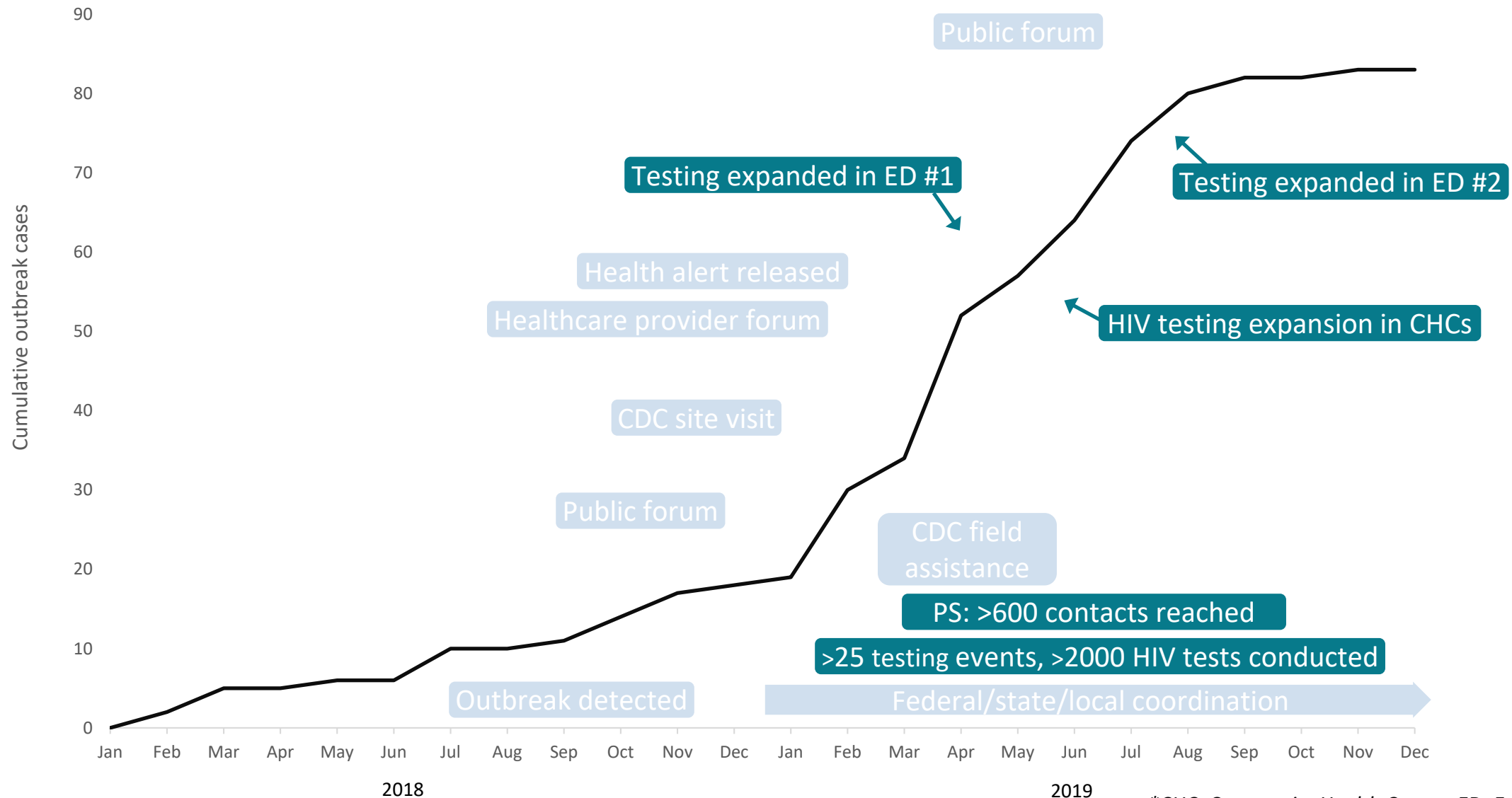
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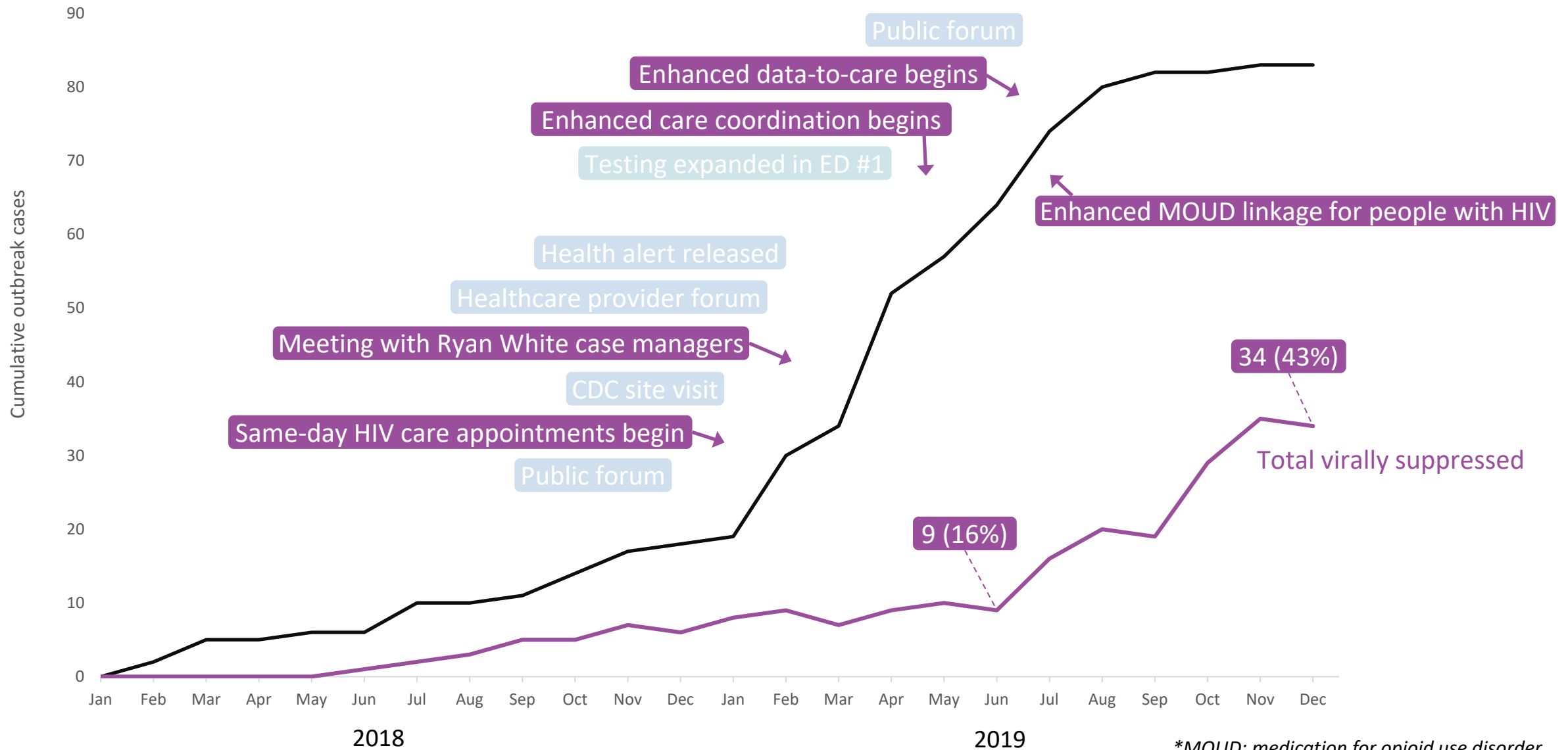
Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them



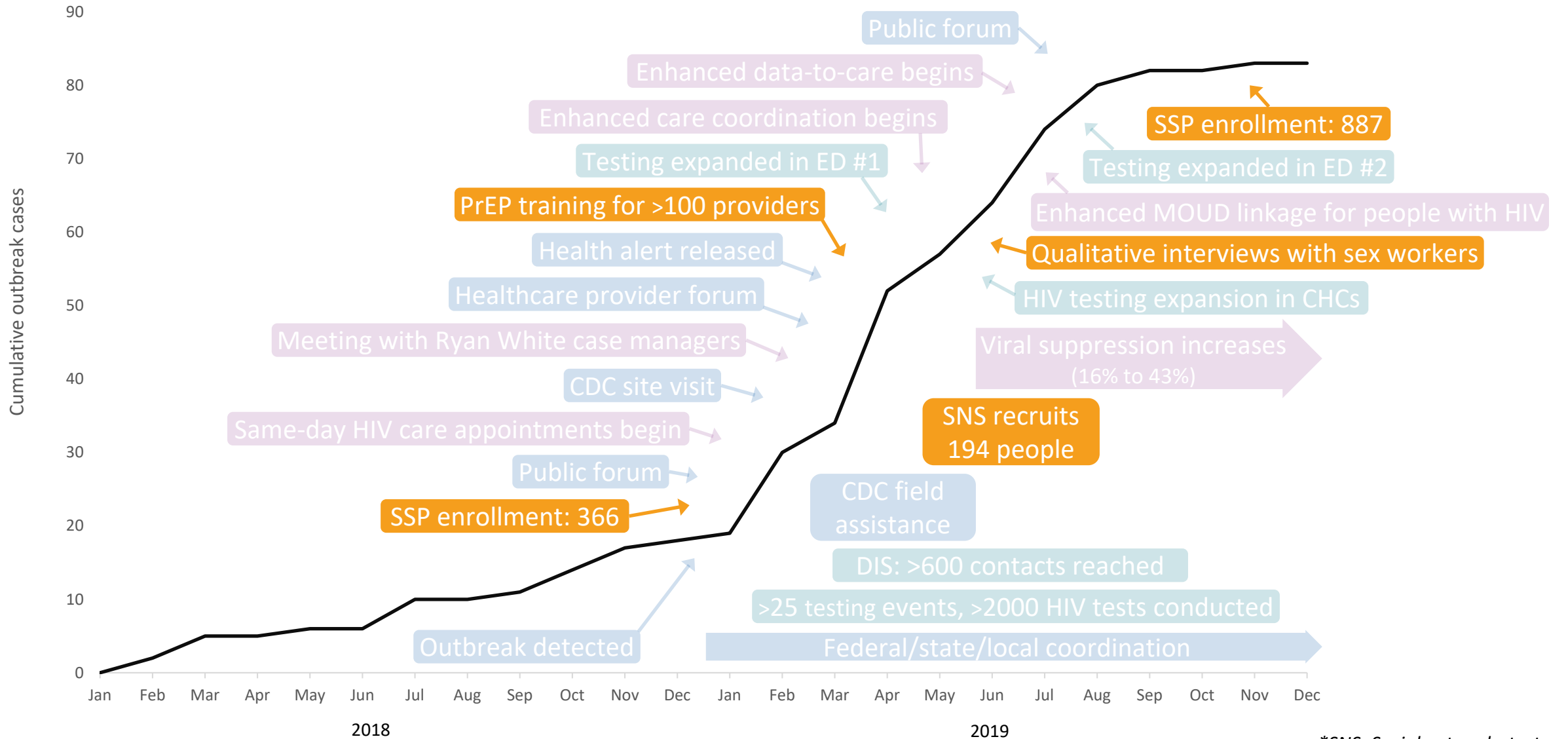
Diagnose all people with HIV as early as possible



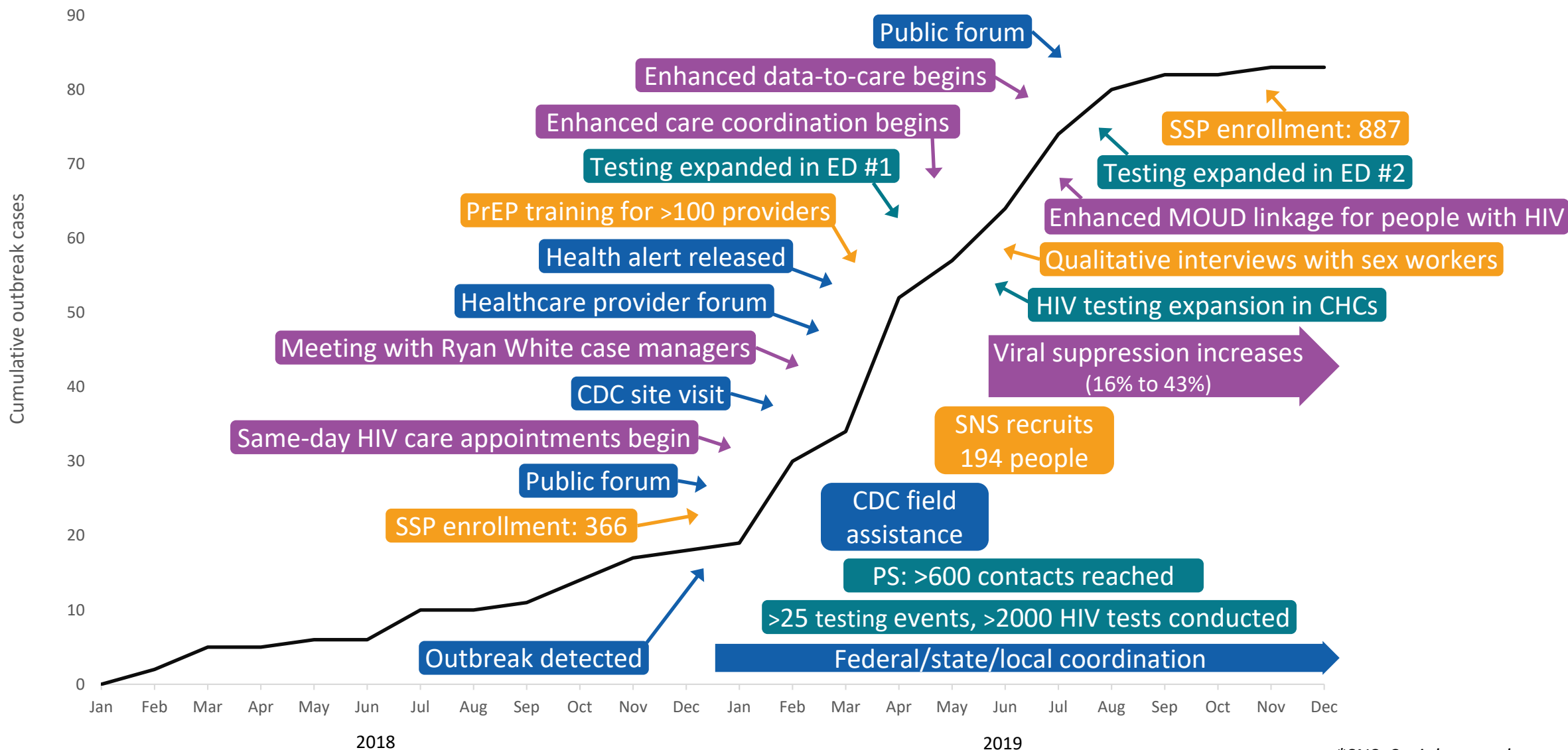
Treat people with HIV rapidly and effectively to reach sustained viral suppression



Prevent new HIV transmissions by using proven interventions, including pre-exposure prophylaxis (PrEP) and syringe services programs (SSPs)



Respond quickly to potential HIV outbreaks to get needed prevention and treatment services to people who need them.





Community Engagement in Cluster Detection and Response

Community Engagement is Essential



Community Engagement

Program Planning



Program Implementation
(Response to a Cluster or Outbreak)



Community Engagement

Program Planning



Engage **community members and organizations** in **planning** for cluster detection and response programs via:

Meetings with planning bodies and public health, policy, healthcare, and community organizations

Federal, state, local

Program Implementation (Response to a Cluster or Outbreak)



Community Engagement on CDR and Molecular Epidemiology

-	Sponsored by federal agencies	Sponsored by outside groups
2016	CDC/HRSA Advisory Committee	NYC HIV Phylogenetic Expert & Community Consultation
2017	NIH consultation: Addressing Ethical Challenges in US-based HIV Phylogenetic Research	Federal AIDS Policy Partnership Third Coast CFAR Symposium on Ethical Considerations for PH Response using MHS Data UCHAPS Meeting on MHS Pangea Meeting on Ethics of Phylogenetics
2018	CDC-led engagement at USCHA CDC-led series of 5 community engagement webinars with HIV planning groups and CBOs	O'Neill Institute MHS Community Stakeholder Meeting MA Getting to Zero Meeting
2019	CDC-led engagement at NHPC CDC-led virtual meeting series with external collaborators	Legacy Project 3-part Series on Understanding MHS
2020/ 2021	PACHA stigma & disparities subcommittee PACHA full council meeting	Emory/CDC CAB meeting NASTAD board meeting AIDS United MHS subcommittee meeting

Further Expansion of Community Engagement in 2022

■ Federal

- CDC/HRSA Advisory Committee
- PACHA Stigma & Disparities MHS/CDR convening
- EHE Operational Leadership Team

■ Advocacy and Policy

- DHP leadership meeting with advocates including reps from networks of people living with HIV
- AIDS United Public Policy Council
- Treatment Action Group
- HIV Prevention Action Coalition

■ General Community

- Regional EHE listening session

■ Public Health

- Natl Assoc of City and County Health Officials
- Council of State and Territorial Epidemiologists

■ Clinical

- HIV Medicine Association
- American Academy of HIV Medicine
- Association of Nurses in AIDS Care
- Kentucky AIDS Education Training Center

■ Academic

- Emory Center for AIDS Research
- UCSD Center for AIDS Research

Incorporating Input on Engagement and Stigma

- Broad engagement in both planning and implementation
- Issued guidance for HDs to conduct community engagement
- Expanded expectations to include active involvement of community members and organizations in EHE funding program
- HDs required to develop CDR Plans that include:
 - community engagement
 - address how feedback is incorporated into program implementation
- Communication plans/materials



Incorporating Input on HIV Criminalization and Data Protections

- Issued guidance for HDs to assess data protections
- Routinely monitoring if HDs aware of any disclosures for non-public health reasons
- Expanded guidance that HDs should not:
 - attempt to determine directionality
 - release sequence data to public repositories
- Updated rules of behavior in molecular cluster detection software used by HDs



To end the HIV epidemic, public health, criminal justice, and legislative systems must work together to ensure that laws protect the community, are evidence-based and just, and support public health efforts.

Modernizing Laws and Policies

- CDC provides data, tools, and other information to states so that they can review and revise criminalization laws (when warranted) and ensure strong data protections.*
- CDC reviews HIV-related criminalization laws to determine their alignment with current scientific evidence.
 - See CDC website to find aggregate state level data.**

**Laws Modernized
or Repealed
2021–2022**

Georgia
Illinois
Missouri
Nevada
New Jersey
Virginia

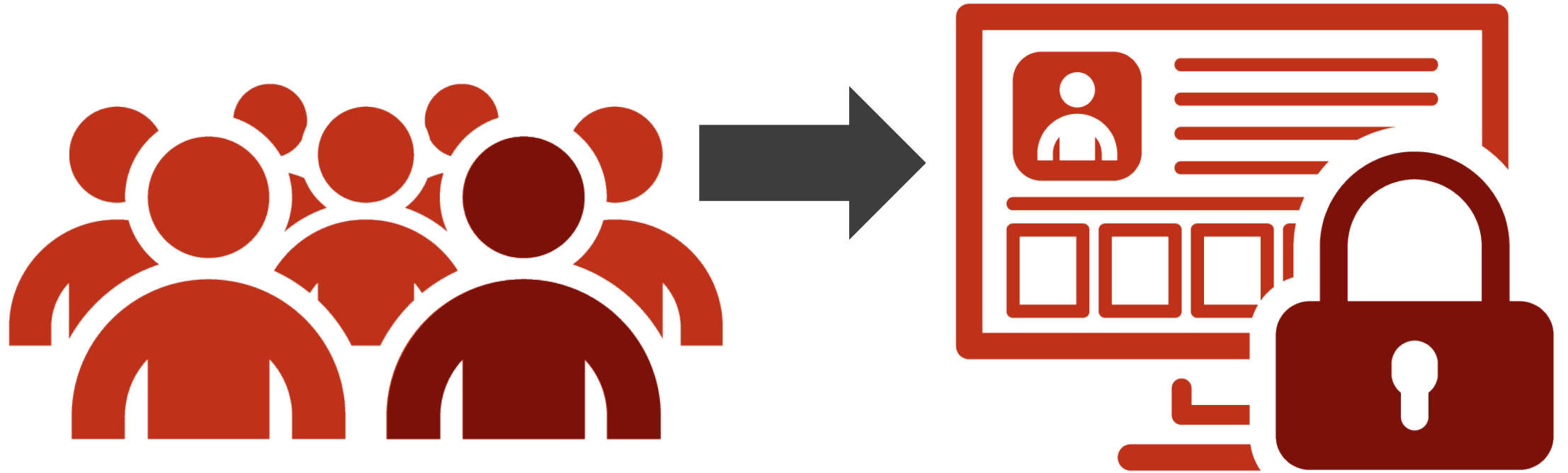
**Legislation
Proposed**

Pennsylvania
Florida

* <https://www.cdc.gov/hiv/pdf/funding/announcements/ps18-1802/cdc-hiv-sequence-guidance.pdf>

** <https://www.cdc.gov/hiv/policies/law/criminalization-ehe.html>

U.S. HIV Public Health Data Are Strictly Protected



Community Engagement

Program Planning



Engage **community members and organizations** in **planning** for cluster detection and response programs via:

Meetings with planning bodies and public health, policy, healthcare, and community organizations

National, state, local

Program Implementation (Response to a Cluster or Outbreak)



Engage **community members and organizations** in **responding** to specific clusters and outbreaks via:

Public forums, meetings with healthcare providers and community organizations

Usually state and local

Community Engagement in a Charleston, WV, Response



- HIV
- Viral Hepatitis
- STD
- Overdose Prevention



Charleston Area Medical Center



Covenant House

Championing the rights of all West Virginians for food, housing, and healthcare.



Community Education Group



Manna Meal



PAAC PARTNERSHIP of African American Churches
Facilitating Empowerment

Community Engagement

Program Planning



Engage **community members and organizations** in **planning** for cluster detection and response programs via:

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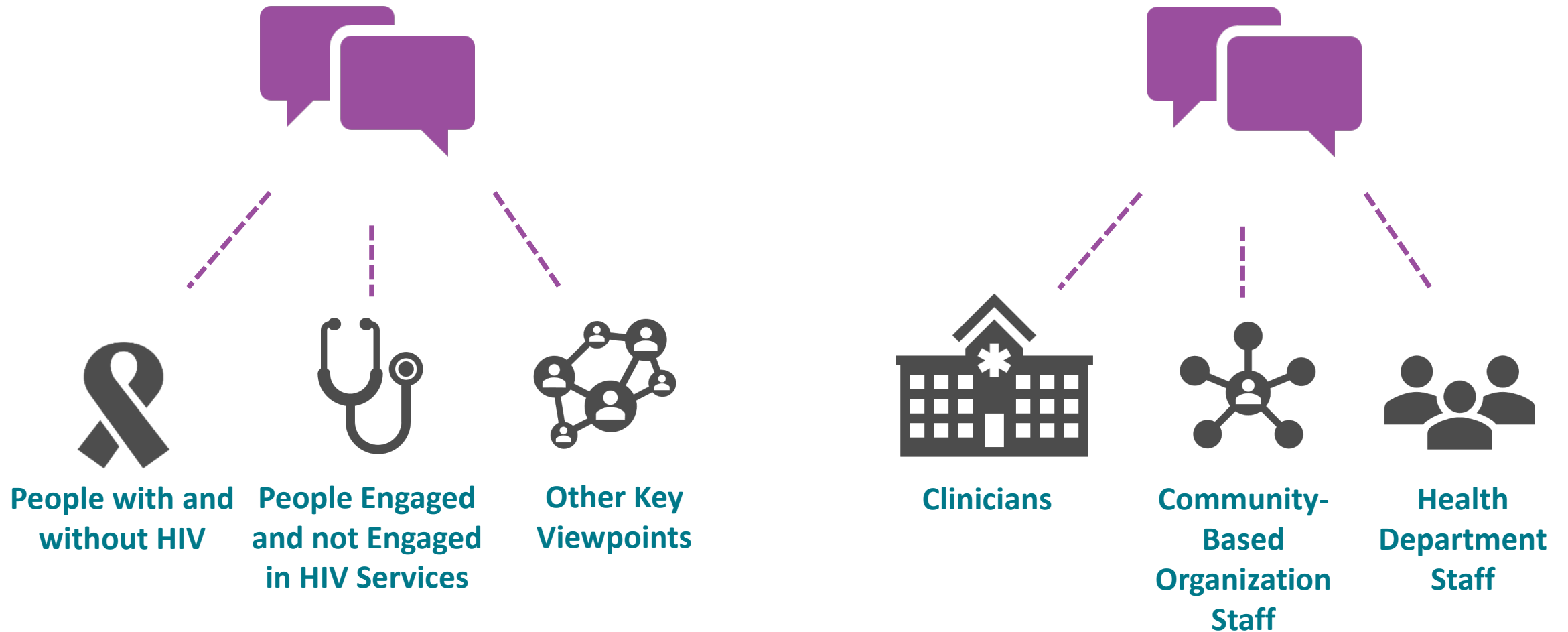
Usually state and local

Engage **people involved in cluster or outbreak** in **responding** to specific clusters and outbreaks via:

Qualitative interviews to ask input on challenges and needs and solicit ideas for solutions

Usually state and local

What Does Direct Community Engagement During Response Implementation Look Like?



Qualitative Interviews Incorporate Direct Community Input into Response

I think of [**partner services**] as **humane**. I would want to know. It's almost like putting a mask on for COVID, but it's not a call you want to receive.

- Hispanic/Latino gay or bisexual man, HIV-negative

I really liked the fact that it was an **immediate test** today. I think that is a really great thing, and I think people would be more apt to do it if they know they will get the results right then.

- Woman who exchanges sex

Trust is lost in translation.

– HIV care provider

Qualitative Interviews Incorporate Direct Community Input into Response

“We need the needle exchange [**downtown**] where the problem is.”

– Woman who injects drugs, living w/HIV

“I think they should have **more days** of it [mobile SSP], you know? ...There’s no place I can go and get needles Friday, Saturday, Sunday. So for those three days I’m at higher risk.”

- Man who injects drugs

“...people just **aren’t educated** on its [the SSP’s] purpose.”

– Law enforcement

People Receiving Response-Related Services Believe in the Value of this Work

- Among people contacted for cluster response interviews in Seattle:
 - 100% agreed or strongly agreed that “it is important for the health department to follow up with people who may be part of HIV clusters”
 - 83% agreed or strongly agreed that “it is important to me to know that I may be part of a cluster”

“You are the biggest blessing that happened to me this year.”
– Person who was out of care for many years



Response Outcomes



- Reduced diagnoses or transmission, or a lack of new linked cases
- Improved HIV testing and diagnosis
- Improved viral suppression, or improved linkage to and retention in HIV care
- Improved PrEP uptake or SSP utilization
- Improved prevention and care for other conditions, such as hepatitis A vaccination, hepatitis C treatment, improved opioid use disorder treatment, prevention of endocarditis



Response Examples

Response to a Molecular Cluster Led to Accelerated Linkage to Care in Texas

- Cluster affected Hispanic/Latino gay and bisexual men
- Providers, community members, and HD staff established the End Stigma, End HIV Alliance

From 13 days

<https://www.cdc.gov/hiv/policies/cdr/spotlights/index.html>

Pack *et al.* Natl HIV Prev Conf 2019

Response to an Outbreak Led to Community-Centered Program Changes in Minnesota

- Outbreak affected tribal communities including people experiencing homelessness
- HIV services integrated into clinics serving tribal communities

“PrEP typically is provided within a clinic-based model, but our clients don’t go to clinics, so we’ve learned to offer it using a street-based model.”

— SARAH JANE KEAVENY
MINNEAPOLIS, MN

<https://www.cdc.gov/hiv/policies/cdr/spotlights/index.html>



Conclusions

Cluster and Outbreak Response Can Help Bring the Nation Closer to Ending the HIV Epidemic



A cluster or outbreak is a failure of our care and prevention services that needs to be addressed to improve access to services and stop transmission.



Cluster and outbreak response involves curating care and prevention services to be more accessible to the people who need them most.



Response is most successful when community engagement is an integral part of response efforts.



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

HIV Cluster Detection and Response in Action: Stories from the Field



www.cdc.gov/hivcluster





MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES



Michigan Department of Health and Human Services
Katie Macomber, MPH and Mary-Grace Brandt, PhD, MPH

Putting people first, with the goal of helping all Michiganders lead healthier and more productive lives, no matter their stage in life.

AGENDA

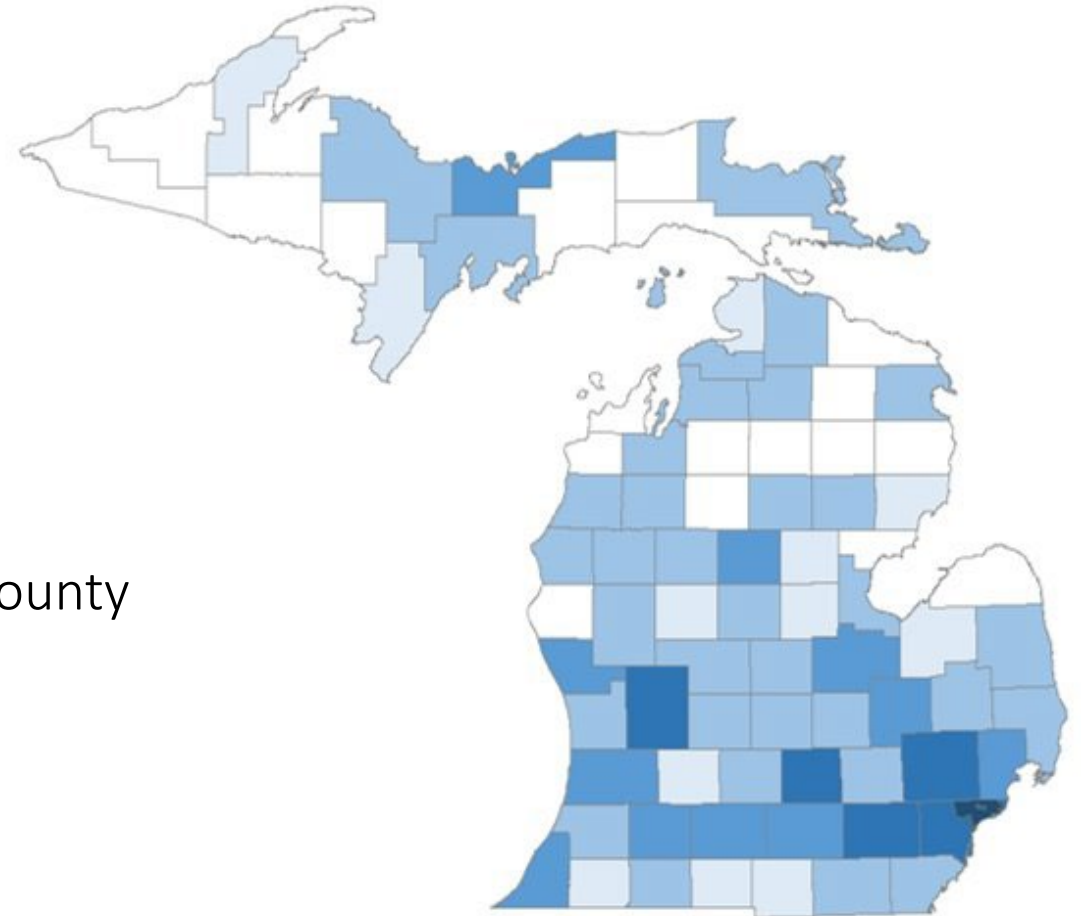
- Michigan Background
- Funding/Staffing
- Legal Landscape
- Outbreak Planning
- Communications Strategy and Engagement
- Response

OVERARCHING THEMES

- Effective intervention and response **efforts cannot be based on data alone, or one specific set of data**
- SHiNe **does not replace or negate** other methods of surveillance and/or intervention
- SHiNe is part of **a comprehensive set of tools** utilized to ensure that individuals and opportunities for intervention and **assistance do not fall through the gaps**
- No single approach or intervention will be enough, interventions and outreach must be:
 - Client-Centered
 - Account for the needs of the whole person, not just HIV
 - Dynamic and flexible to fit the needs of the client and community
 - Collaborative

NETWORK RESPONSE IN MICHIGAN

- Mid-Morbidity Jurisdiction
- Approximately 650 new diagnoses annually
- 12 Networks- 2020-2022
 - 7 SHiNe, 4 Time space, 1 PS alert
- 206 Network Members
 - 86 in client focused network
 - 120 part of general Time space in SE Wayne County
- 40 Re-Interviews



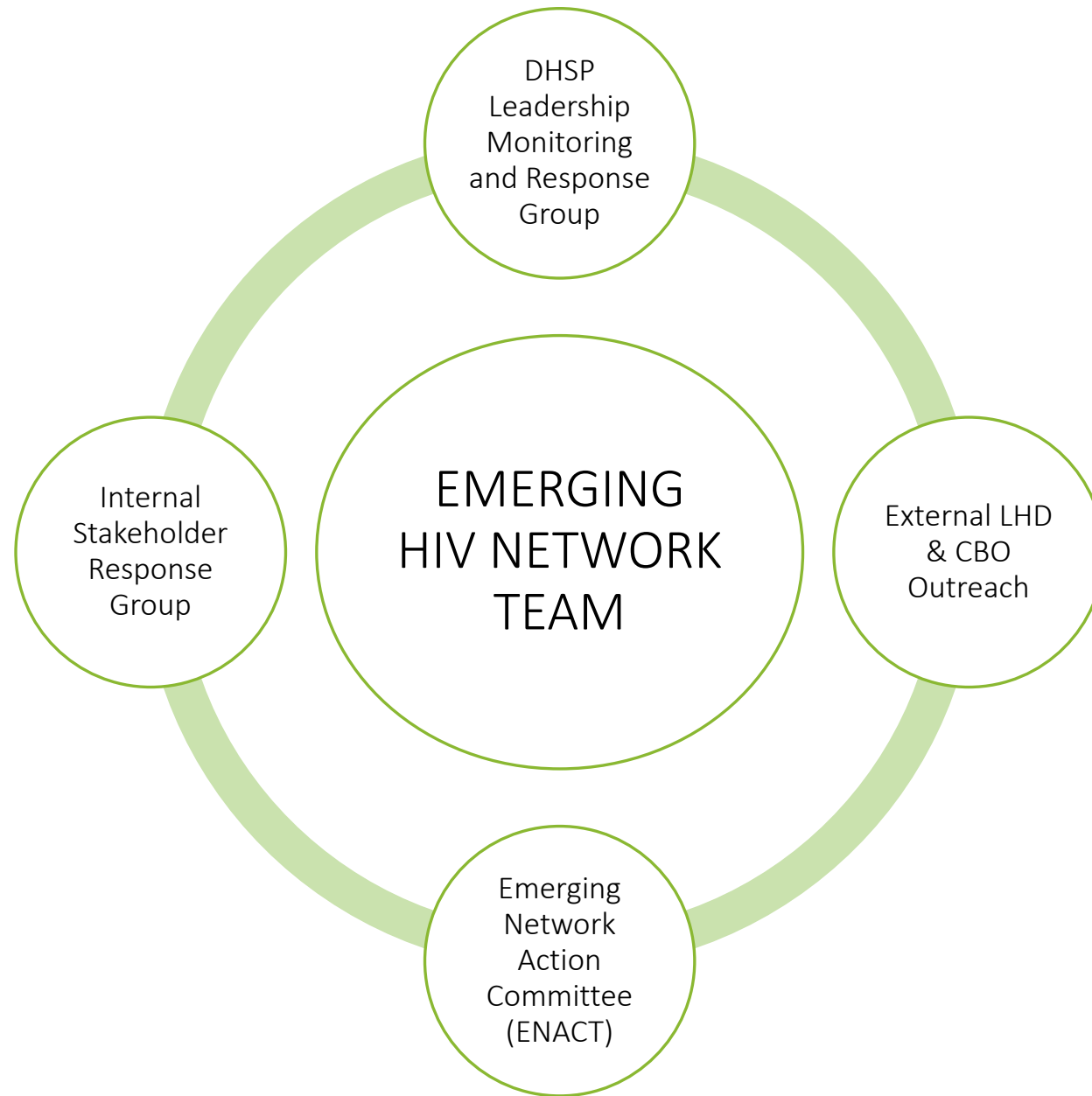
FUNDING AND STAFFING

- Staff:
 - 1 HIV Epidemiologist
 - 1 DIS
 - 1 Departmental Analyst
- Braids Ryan White Rebate, 1802, and Ending the Epidemic Funding
- Emergency fund for rapid program needs at local level

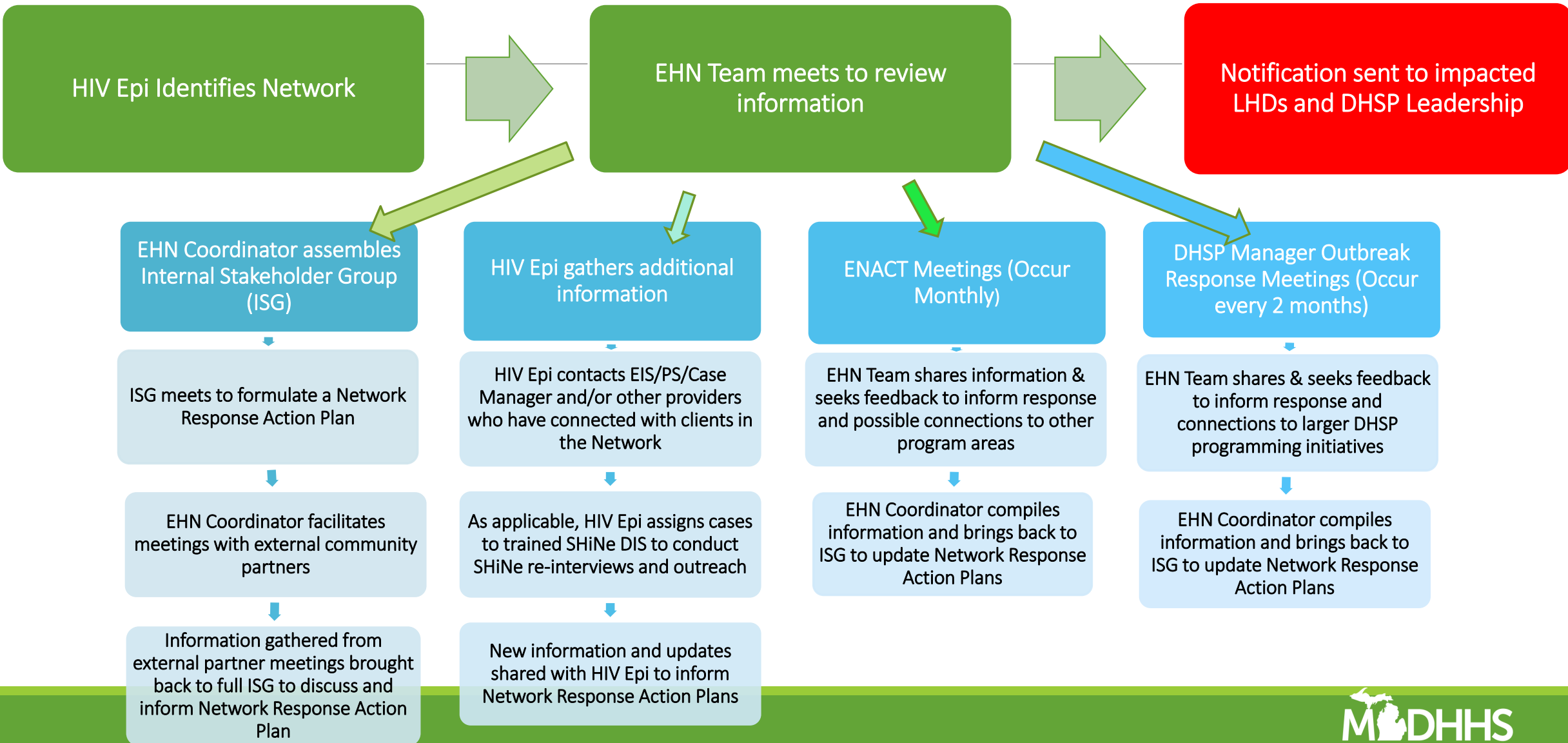
PUBLIC HEALTH CODE

- Public Health Code has electronic laboratory reporting of genotype data
- Public Health Code has permissive data sharing for the care and treatment of HIV
- HIV Criminalization Reform occurred in 2018
- Robust SSP program

IF	AND (BEFORE VAGINAL OR ANAL SEX)	AND	AND	THEN
IS NOT MEDICALLY SUPPRESSED- HAS A DETECTABLE VIRAL LOAD	Did not disclose HIV status	Did not transmit HIV	Did not intend to transmit HIV	1 year misdemeanor and or \$1,000 fine
IS NOT MEDICALLY SUPPRESSED- HAS A DETECTABLE VIRAL LOAD	Did not disclose HIV status	Transmitted HIV	Did not intend to transmit HIV	4 year felony
IS NOT MEDICALLY SUPPRESSED- HAS A DETECTABLE VIRAL LOAD	Did not disclose HIV status	Transmitted HIV	intended to transmit HIV	4 year felony
IS MEDICALLY SUPPRESSED	Did not disclose HIV status	Did not transmit HIV	intended to transmit HIV	4 year felony
IS MEDICALLY SUPPRESSED	Did not disclose HIV status	Did not transmit HIV	Did not intend to transmit HIV	Can not be prosecuted



SHiNE Network Process



STANDARDIZED RESPONSES TO SHINE AND TIME-SPACE NETWORKS

A phased response plan is integrated within Michigan's larger HIV response plan

Developed in order to ensure uniform response to clusters/increases in diagnoses

- Ensures the right people get the right data at the right time
- Provides a base on which a response can be tailored

Plan is based on Time-space and SHiNe monitoring programs

- Monitoring programs create flags based on increased diagnoses among populations of interest or growth of SHiNe clusters
- Data produced by monitoring programs is compared to indicators to determine phase

Phased response plan consists of 5 phases that each contain:

- Indicators
- Action items
- Individuals/teams to be alerted

HIV NETWORK RESPONSE AND ELEVATION

Indicators



- Dictates what specific rate, count, or other factor is required to enter a specific phase
- Includes guidance for:
 - Monthly, quarterly, and annual time-space alerts
 - SHiNe (molecular HIV surveillance) alerts



Surveillance actions



- Details steps to be taken by the Surveillance staff
- Common steps include creation of:
 - Line lists, tables, custom reports based on need

Prevention/Care and LHD actions



- Details steps to be taken by the prevention/Care and Local health department staff
- Common action items include :
 - Targeted testing
 - Linkage activities
 - Enhanced partner services
 - Care engagement activities

Surveillance actions



- Dictates what specific rate, count, or other factor is required to enter a specific phase
- Includes guidance for:
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Prevention/Care and LHD actions



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Surveillance Actions

ection managers, and STI epidemiologist, and Communicable Disease Report CDR. Include reminder not to respond with any PII

Surveillance Actions			Prevention/LHD Activities
<p>Monthly: Provide tables detailing county, sex, race, sex/race, age, risk, repeat tester, facility of dx, linkage status, and viral suppression status. If a city is driving the increase in new diagnoses within a county/PR region, surveillance may produce one table. Surveillance will create running line lists with HIV, Partner services, and STD data.</p>	<p>Quarterly: Provide tables detailing county, sex, race, sex/race, age, risk, repeat tester, facility of dx, linkage status, and viral suppression status. If a city is driving the increase in new diagnoses within a county/PR region, surveillance may produce one table. Surveillance will create running line lists with HIV, Partner services, and STD data.</p>	<p>Annual: Provide tables detailing county, sex, race, sex/race, age, risk, repeat tester, facility of dx, linkage status, viral suppression status, and census counts. Surveillance will create running line lists with HIV, Partner services, and STD data.</p>	<p>Monitor new diagnoses and update locals, regional epis, and prevention regarding new diagnosis counts.</p> <p>Increase targeted testing based on Surveillance report</p> <p>Initiate or enhance care linkage, and re-engagement activities as well as treatment adherence</p> <p>Provide TA</p>
<p>Provide tables detailing county, sex, race, sex/race, age, risk, repeat tester, facility of dx, linkage status, and viral suppression status. If a city is driving the increase in new diagnoses within a county/PR region, surveillance may produce one table. Surveillance will create running line lists with HIV, Partner services, and STD data.</p>			<p>Linkage to care activities and additional Partner services</p> <p>Increase targeted testing based on Surveillance report</p> <p>Initiate or enhance care linkage, and re-engagement activities as well as treatment adherence</p> <p>Initiate SHiNe Re-interviews on select clients</p> <p>Provide TA</p>
<p>Dependent on situation</p>			<p>Dependent on situation</p>

NETWORK NOTIFICATION EMAIL'S

Notification sent to local Health departments upon network identification

- Sent via designated MDHHS email; mdhhs-hiv-sti-monitoring@michigan.gov
- Sent within 3 days of network identification

Notification includes

- Demographic data
- Care data
- Local health jurisdictions involved
- Next steps at the state level

Notification requests

- Any insight local jurisdictions may have
- Any potential interventions jurisdictions may be exploring



EXAMPLE NETWORK NOTIFICATION EMAIL

Active Networks of HIV Transmission in Wayne County, Need for Increased Comprehensive HIV/STI Testing and Outreach

- MDHHS Surveillance has identified active networks of HIV transmission in Wayne County.
 - Disproportionate impact of new HIV cases among the following populations within these networks:
 - Trans women
 - Individuals indicating connections to sex work/exchange sex
 - Black/African American
 - Under the age of 35
- Statewide gonorrhea and syphilis rates increased significantly in 2020 (despite a decrease in testing due to COVID)
- Concurrent STIs increase the risk of acquiring and transmitting HIV and other STIs - [Factors Increasing HIV Risk | CDC](#)
- Active networks of transmission and rising STI rates emphasize the need to increasing comprehensive HIV/STI testing and outreach efforts in Wayne and surrounding counties.
 - Efforts should emphasize the importance of community engagement and align with the needs and values of the community.
- Availability of HIV Self-Tests from two organizations in Detroit, Wayne State University Prevention (W'SUP) Horizons and the Detroit Health Department. The kits are free to those who qualify and can be found at the following websites:
 - Please check out www.mihivstatus.org for more information on Horizons' project
 - Please check out www.detroitmi.gov/HIVtest for information on Detroit Health Department's program
- It is essential to have a process for distributing, receiving, and reporting the results of self-testing as well as avenues for follow-up with clients to connect them to HIV/STI care, prevention, and support services, as needed.
 - For more information and/or assistance with self-testing, please contact Mary Roach at RoachM@michigan.gov.

WAYNE CO SHINE NETWORK 9.8

BACKGROUND

- Identified **mid-May 2021**, highly related HIV sequence and recency diagnosis indicate recent and rapid transmission
 - **5 individuals diagnosed within a year, 12 network members total**
 - **10 new network members since identification**
- **60%** of original network members either engage in sex work, frequent sex workers, or have partners who engage in sex work



DEMOGRAPHICS AT IDENTIFICATION (N=12)

- **75%** African American
- **75%** below 35 years of age
- **60%** identify as transgender women
- **60%** virally suppressed at time of identification
 - Of original network members:
 - **83%** virally suppressed; **75%** undetectable

CURRENT DEMOGRAPHICS (N=22)

- **82%** African American
- **69%** below 35 years of age
- **45%** identify as transgender women*
- As of **5/16**
 - **59%** virally suppressed
- ***NOTE: 10 new diagnoses since identification, 7 added since 1/1/2022**
- **3 cis-females**
- **3 TG**

TIMELINE OF OUTREACH AND ENGAGEMENT



05/2021:
SHiNe
Network 9.8
Identified

7/8/21: 1st
ISG formed
for
Response
(13
meetings to
date)

7/16 –
8/25/21: Met
with key
community
partners and
organizations

10/2021:
Began
process to
create
mobile unit
initiative

01/2022:
Identified
PS22-2209
Grant
Opportunity

05/2022:
Pull-Up
Project
Planning
Summit

6/1/21: EHN
Coordinator
Onboarded

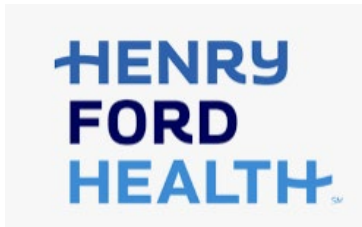
7/16/21:
SHiNe
Network 9.8
community-
oriented
message

09/2021:
Began
process to
create
ENACT

12/2021:
First official
ENACT
Meeting

04/2022:
First large
group
meeting for
"The Pull-Up
Project"

06/9/2022:
Community
Day event to
launch "The
Pull Up
Project"



SE MICHIGAN INTERVENTION AND RESPONSE EFFORTS

Increasing Internal and External Communication



Mobile Unit Services



Social Media Campaigns



Promoting and Expanding Testing Options



ONGOING COMMUNITY ENGAGEMENT

- Make sure that before we talk to a network member we interact with the provider, case manager, etc.
- Presentations to planning bodies
- 1-day summit
- Presentations and updates at conferences
- Community input on branding, brochures
- Emphasize role of data in resource allocation
- MHS is a part of over epidemiologic methods including all CDR activities
- MHS allows us to customize the response to unique settings (rural, drug user health, trans health, etc.)

NETWORK DETECTION AND RESPONSE PRESENTATIONS

Presentation	Date
MDHHS Detection and Response to HIV Networks Presentation through Michigan AIDS Training and Education Center (MATEC)	11/11/2021
Shared HIV Networks (SHiNe) Presentation to Southeast Michigan HIV/AIDS Council (SEMHAC) Learning, Empowerment, Advocacy, Participation (LEAP) program	12/9/2021
Shared HIV Networks (SHiNe) Presentation to HIV/AIDS Alliance of Michigan (HAAM)	1/14/2022
Meeting with Matrix to discuss Network detection and response	2/4/2022
Network detection and response presentation to Henry Ford Hospital medical staff	2/23/2022
Network detection and response presentation to Detroit Health department	3/9/2022
Network detection and response discussion with staff from Ruth Ellis Center	3/11/2022
Bi-Annual SHiNe training for new DIS	3/22/2022
Network detection and response Presentation to Detroit HD RW All Providers Meeting	4/26/2022
SHiNe presentation to Michigan HIV/AIDS Coalition	5/19/2022

SHiNe



What is a Shared HIV Network?

After an HIV diagnosis, a genotype test is performed to determine if the specific HIV strain is resistant to certain drugs. This allows medical professionals to prescribe the most effective anti-viral regimen that will allow their patient to reach an **undetectable viral load**. Like all tests (CD4, viral loads, etc.) related to HIV, these genotype tests are reported to the state to provide insight on trends and patterns in the community with the goal of decreasing new transmissions to zero. Using the results of the genotype test, public health workers can detect **Shared HIV Networks** consisting of people whose strains of HIV are closely related (**THE SPARK**).

We can create these groups because the HIV virus changes and mutates at a consistent, rapid rate. For instance, if two people have a similar strain of HIV it may indicate a connection between these individuals. After living with HIV for a period of time, each person's strain will evolve in its own unique way and no longer resemble other people's individual HIV strains. Identifying related viral strains within a short period of time can indicate that transmission is occurring rapidly within a group (Shared HIV Network).

When these groups of individuals with similar HIV strains are identified, the health department **CANNOT** tell who infected whom. Additionally, these groups may represent only a few out of the actual number of cases within the transmission group (**THE LIGHT**) or the larger network of people at risk (**THE GLOW**).

Groups with similar HIV strains only provide evidence of some type of connection. We can infer that there is a direct or indirect epidemiologic link, but we CANNOT infer who may or may not have transmitted HIV to whom. There could be multiple different scenarios in play as indicated in the figure below.

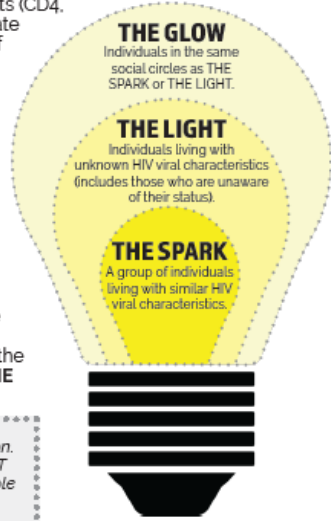
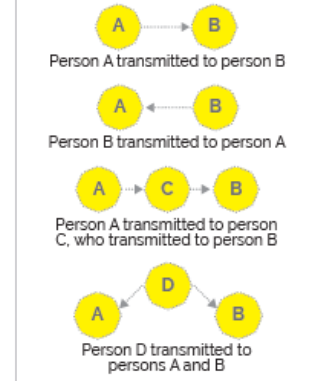


Figure: Four Possible Transmission Paths



What is a transmission group?

A transmission group is a larger piece of a Shared HIV Network (**THE SPARK and THE LIGHT**). Individuals within this transmission group are persons with HIV (PWH) who have a direct or indirect relationship to each other. There could be a few reasons why a person in a transmission group might not be detected initially as part of a Shared HIV Network (**THE LIGHT but not THE SPARK**):

- Persons living with undiagnosed HIV
- Persons diagnosed but have not yet received genotype testing
- Results of genotype testing has not been reported to the health department

What is the greater risk network?

The overarching network that contains both PWH as well as those at risk of acquiring HIV (**THE GLOW**) is called a risk network. Every individual is involved in a risk network to some degree, however certain people are 'more at risk' or more likely to contract HIV. Those 'more at risk' individuals within a risk network who do not have HIV are the focus of effective preventative interventions, such as Pre-Exposure Prophylaxis (PrEP).

OTHER PARTNERSHIPS

Medical Monitoring Project (MMP)

The goal of MMP is to provide a deeper understanding of the health related experiences of people living with HIV in the US. The information gathered helps inform policy makers on health funding decisions.

Partner Services (PS)

PS are offered to people who are newly diagnosed with HIV or syphilis, or to people who are new to Michigan and already living with HIV. Health department staff contact clients to talk over their diagnosis, offer referrals, and discuss the importance of partner notification. Health department staff also help with partner notification, confidentially notifying partners of the client that they have been exposed to a sexually transmitted infection, and offering free testing. Health department staff can also offer referrals to partners, including referring to Pre-exposure prophylaxis (PrEP). aidsvu.org/services/#/

Link Up Michigan

Link Up Michigan is a program that aims to help people living with HIV stay in medical care. If a person living with HIV hasn't seen a medical provider in over a year, or hasn't picked up their medication recently, local health department staff will reach out and see if they would like any help getting back into medical care. The local health department staff can also offer other services a client may need, like health insurance or housing assistance. The goal is to ensure consistent HIV medical care.

www.LinkUpMi.com

For more information regarding SHiNe or other HIV related activities, find us at www.Michigan.gov/HIVSTD



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PREVENTING
HIV BY
EMPOWERING
THE COMMUNITY.



Michigan Department of Health & Human Services



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CONCLUSIONS

- MDHHS has multiple tools to assist in the monitoring of new HIV networks
- SHiNe is powerful tool in our prevention toolbox
 - We have a responsibility to use it to prevent new diagnoses
- Identifying and responding to ongoing networks is a crucial step in the EHE framework
- Actively seeking partners to help collaborate and improve Michigan's Network detection programs
- Partners and MDHHS together can allocate resources to help unique networks of transmission

How To Claim CE Credit

If you would like to receive continuing education credit for this activity, please visit:

ryanwhite.cds.pesgce.com

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Questions and Answers

