



Advancing the Syndemic Model



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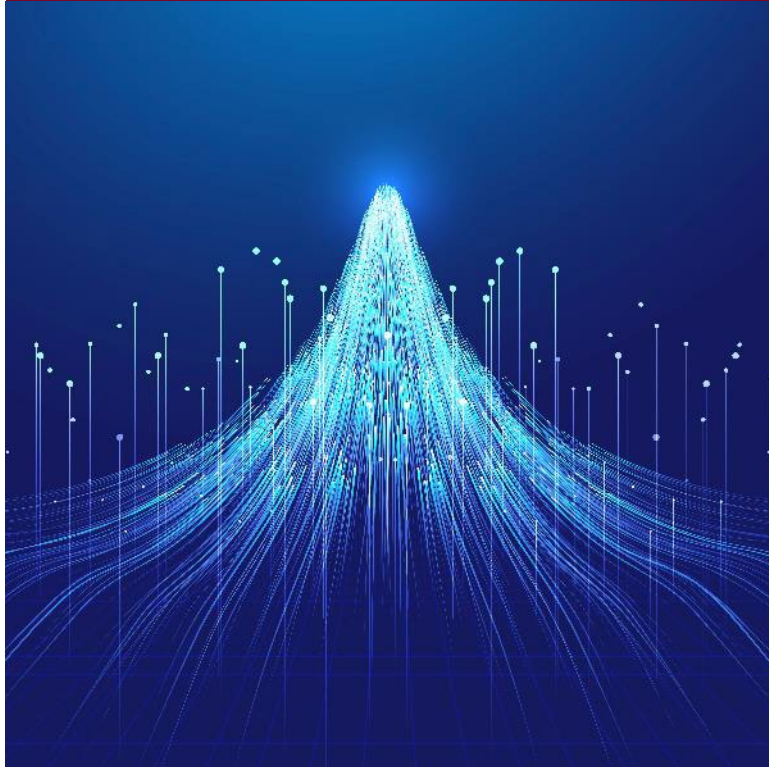
Question for the Viewers



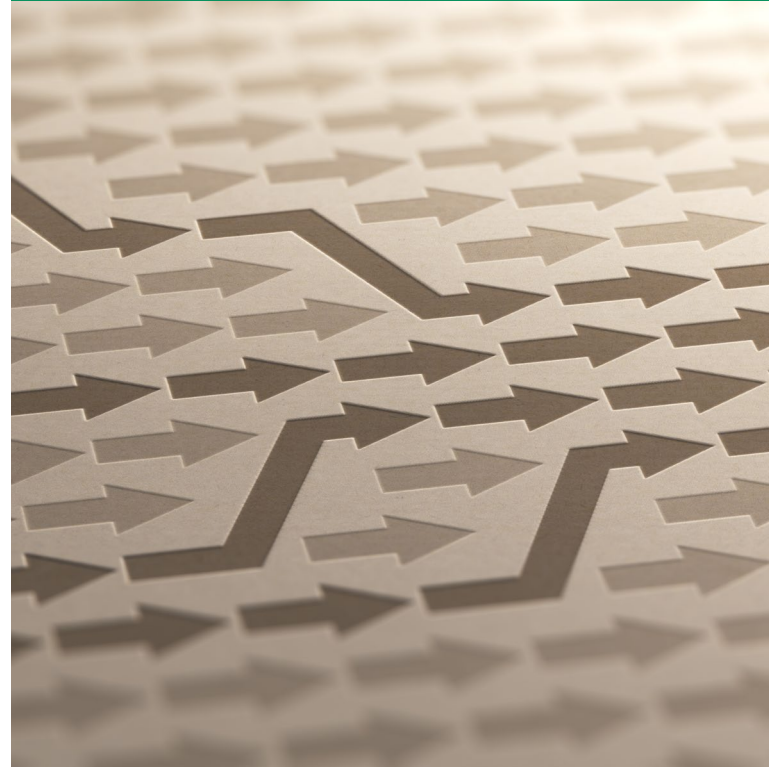
How familiar are you with the syndemic approach?

- A. Very familiar
- B. Somewhat familiar
- C. Not familiar
- D. Other (please type in chat)

Syndemics and the Syndemic Approach




The Syndemic Approach and CDPH



Implementation: Syndemic Approaches in Practice





Syndemics and the Syndemic Approach

Syndemic */sin-dem-ik/ n.*

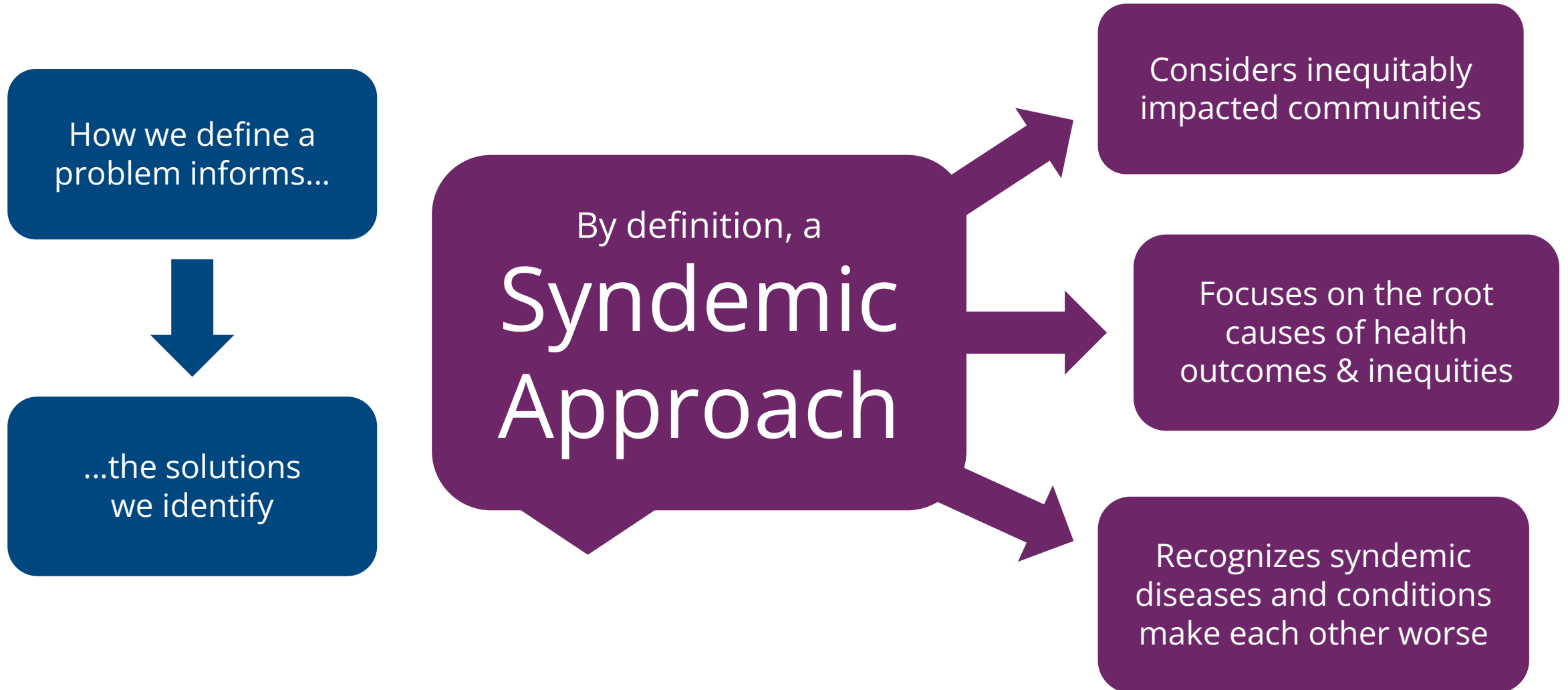
Population-level clustering of social and health problems, defined by 3 characteristics:

- **2+ diseases or health conditions** cluster within a **population**
- As a result of **contextual and social factors**
- Resulting in adverse disease interaction—either biological, social, or behavioral—resulting in **worse health outcomes** for the population¹

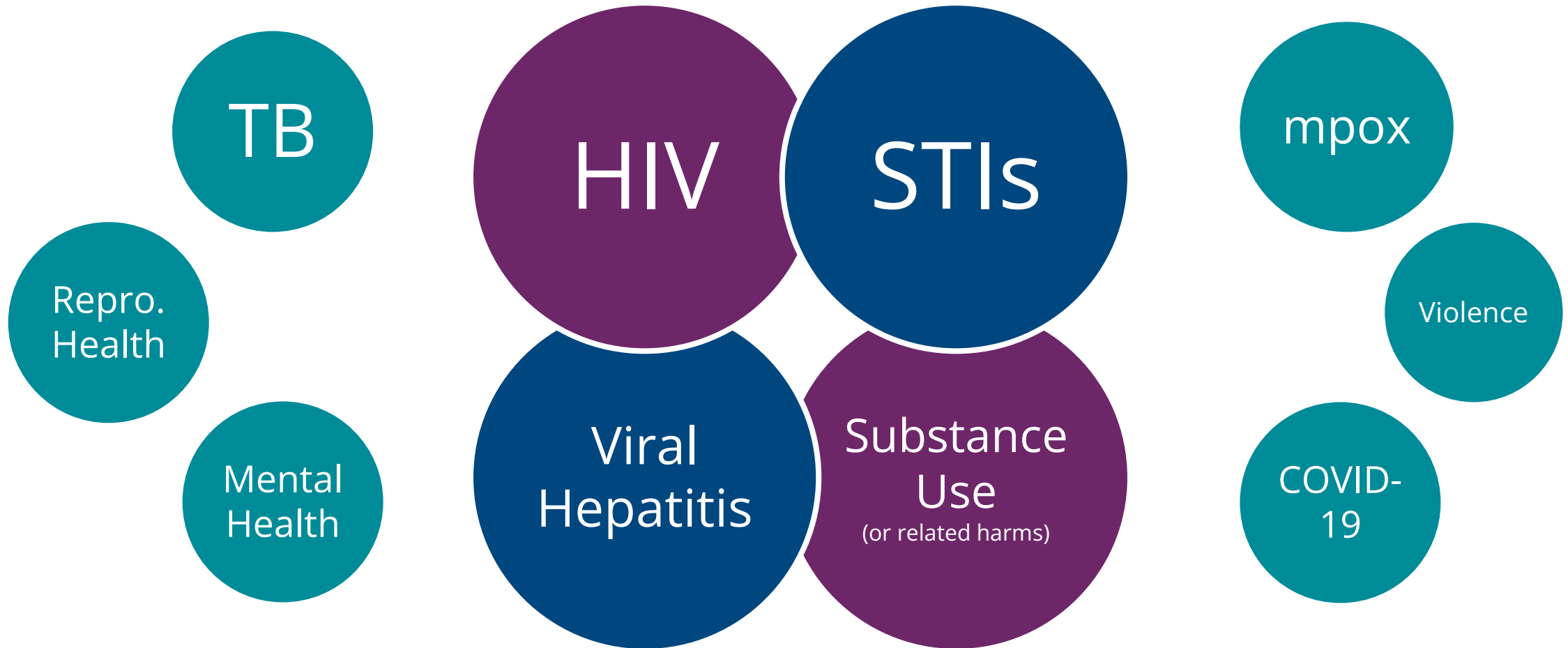
What's in a Name?



What's in a Name?



How Local Health Departments Define “the” Syndemic



The State of the Syndemic



More than **100,000 overdose deaths** annually²



STIs are at record highs, and people who use drugs (PWUD) represent a **substantial and growing proportion** of cases³⁻⁵



Hepatitis C **cases have skyrocketed** over the past decade, and injection drug use is a leading risk factor for hepatitis A, B, and C⁶



HIV outbreaks among PWUD have been reported in **at least 10 jurisdictions** since 2015⁷⁻¹⁰

Drivers of the Syndemic

Shared Social & Structural Factors

Housing
Education
Employment
Transportation
Food security
Discrimination
Stigma
Policy

Shared Individual & Interpersonal Factors

Shared transmission routes
Substances can ↑libido, ↓inhibitions
Sex & drug use occurring in same settings
Higher rates among social, sexual, and drug using networks

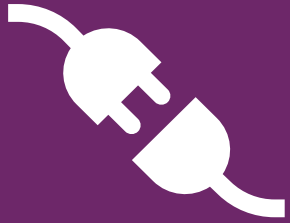
Barriers to Services

Affordability, accessibility, availability of services
Policies that restrict service delivery
Fear of stigma, discrimination, criminalization
Competing priorities

Syndemic

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graph TD; A[Shared Social & Structural Factors] --> C[Barriers to Services]; B[Shared Individual & Interpersonal Factors] --> C; C --> D[Syndemic]; A --> D;
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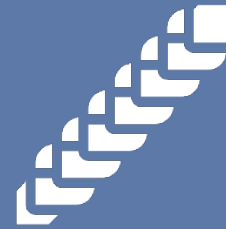
What's a Syndemic Approach?



Integrate
programs &
services



Prioritize
people &
places

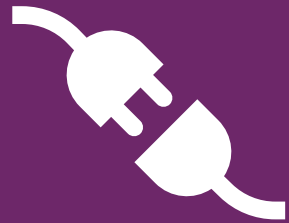


Braid & pool
resources &
infrastructure



Address
drivers of the
syndemic

What's a Syndemic Approach?



Integrate
programs &
services

- Integrate clinical services
- Integrate clinical, harm reduction, and social services
- Expand scope of programs and initiatives (e.g., mail-based testing, Rapid Start)
- Integrate at departmental/organizational level

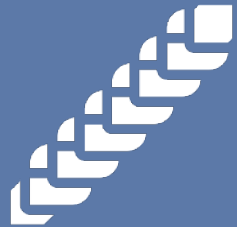
What's a Syndemic Approach?



Prioritize people
& places

- Offer services in the community (e.g., via mobile vans, in encampments)
- Offer services at partners' facilities (e.g., correctional facilities, food banks)
- Offer services where priority populations hangout, dine, shop, worship, etc. (e.g., Pride, immigrant-owned restaurants, Black-owned barbershops)

What's a Syndemic Approach?



Braid & pool
resources &
infrastructure

- Braid **funding** sources to support integration
- Cross-train **staff**
- Utilize **staff** models (e.g., community health workers, navigators, peers, DIS) that affectively reach, build trust with priority communities
- Expand scope of **partnerships** and contracts
- Use **data** from one program to inform others

What's a Syndemic Approach?



Address drivers
of the syndemic

- Provide or connect to services that address social determinants of health
- Provide financial or other forms of support to organizations that address social determinants
- Support local policy change or conduct stakeholder education to influence policy implementation

Siloed funding, staff, reporting mechanisms, data systems

- Addressing siloes requires buy-in and action, often from outside your program (Finance, HR, leadership, funders, partners)

Lack of funding for:

- Addressing social determinants of health
- Partnership building
- Workforce development
- Policy, stakeholder education

Policy and legal barriers

Limited (but growing!) evidence, guidance

- To make the case for this work
- Best practices

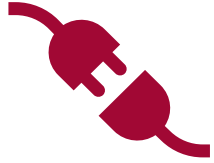


Facilitators



- Flexible funding & funders
- Partnerships
- Meaningful community engagement
- Leadership support / having a champion

Why Take a Syndemic Approach?



✓ **Maximize** limited resources (e.g., make the most of a client encounter)



✓ **Prioritize** limited resources

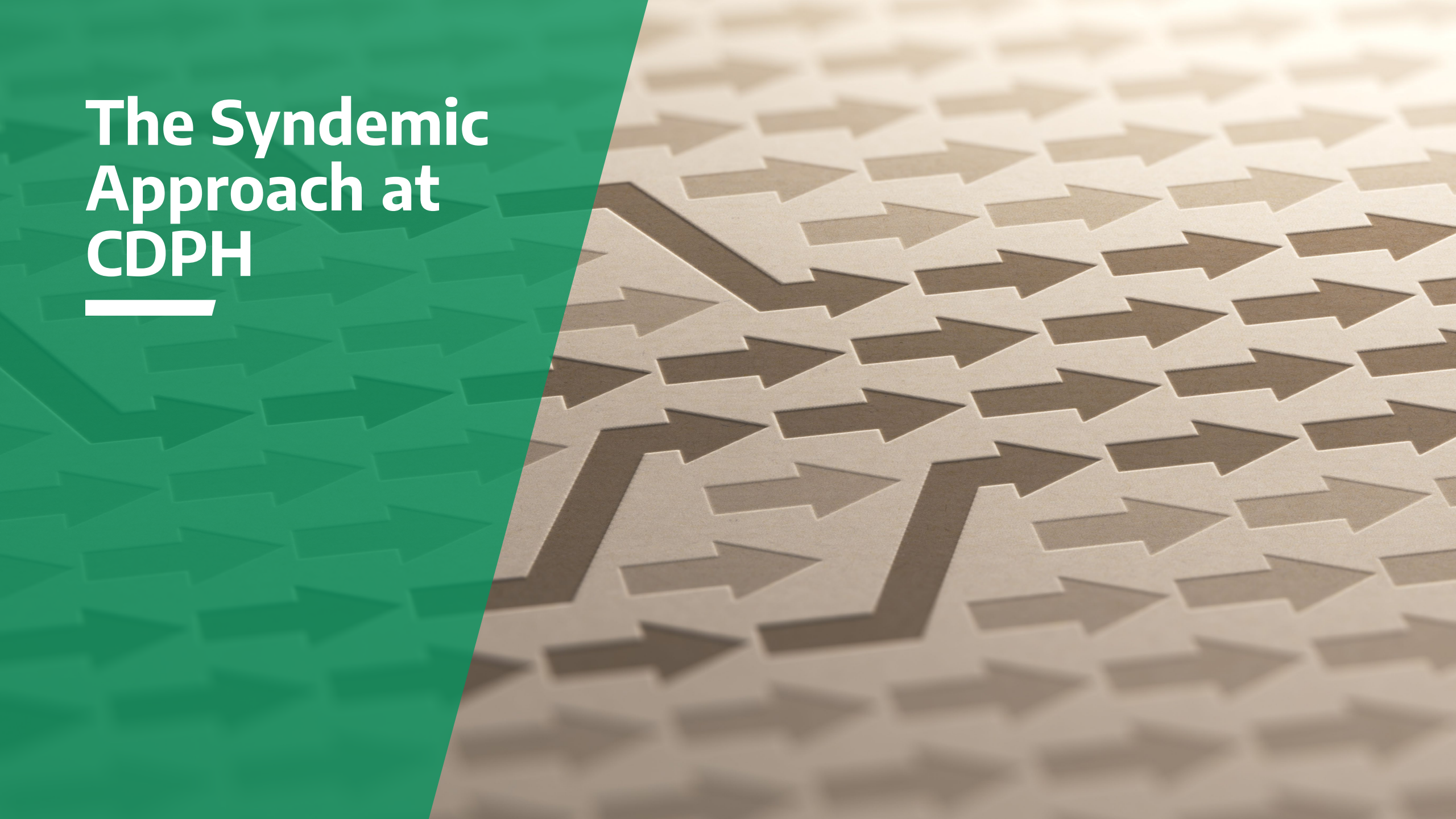


✓ Address **root causes** of multiple diseases, conditions and **shared barriers** to multiple services

✓ Promote health and well-being **holistically**



The Syndemic Approach at CDPH



Rationale for Syndemic Classification at Chicago Department of Public Health (CDPH)

Similar behaviors and conditions lead to risk for these diseases.

- Sexual activity and use of injection drugs are primary behaviors associated with HIV, STI, HCV, and HBV infection diagnoses.

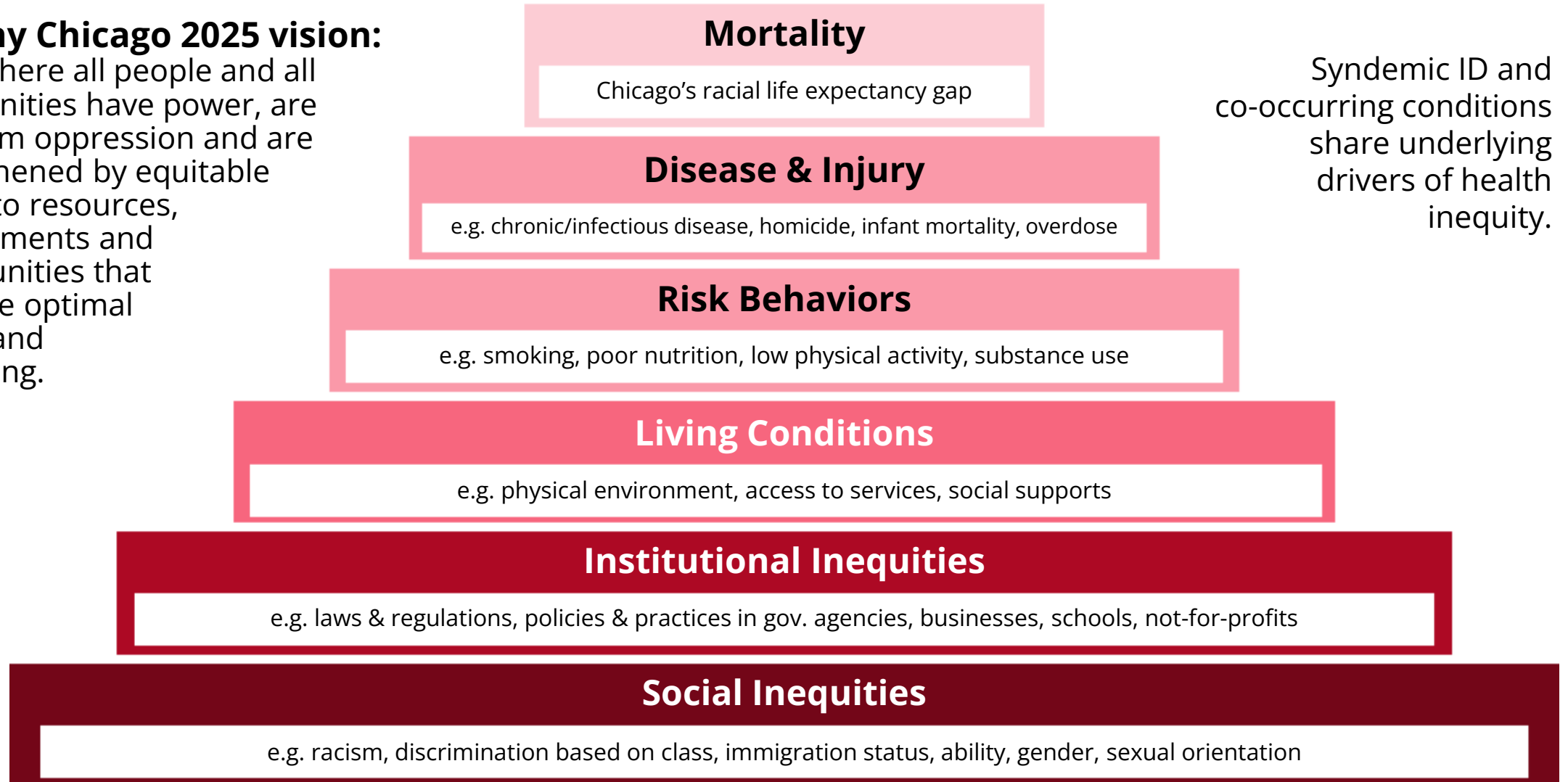
Diseases have reciprocal and interdependent factors:

- **HIV, STI, Mpox, HBV, and HCV** share common risks and modes of transmission.
- **STIs** increase **HIV** infectiousness and susceptibility.
- Advanced **HIV** disease increases risk for severe **Mpox**
- **HIV** is a risk factor to **TB** progression.
- **TB** is an **HIV** opportunistic infection.
- **TB** accelerates **HIV** disease progression.
- **HBV, HCV** co-infection makes **HIV** management more challenging.

Syndemic Approach in Chicago: Alignment with Healthy Chicago 2025

Healthy Chicago 2025 vision:

A city where all people and all communities have power, are free from oppression and are strengthened by equitable access to resources, environments and opportunities that promote optimal health and well-being.



Public Health Interventions Team in the Syndemic Infectious Disease (SID) Bureau

Disease Intervention Specialists (DIS) are trained to work on multiple conditions

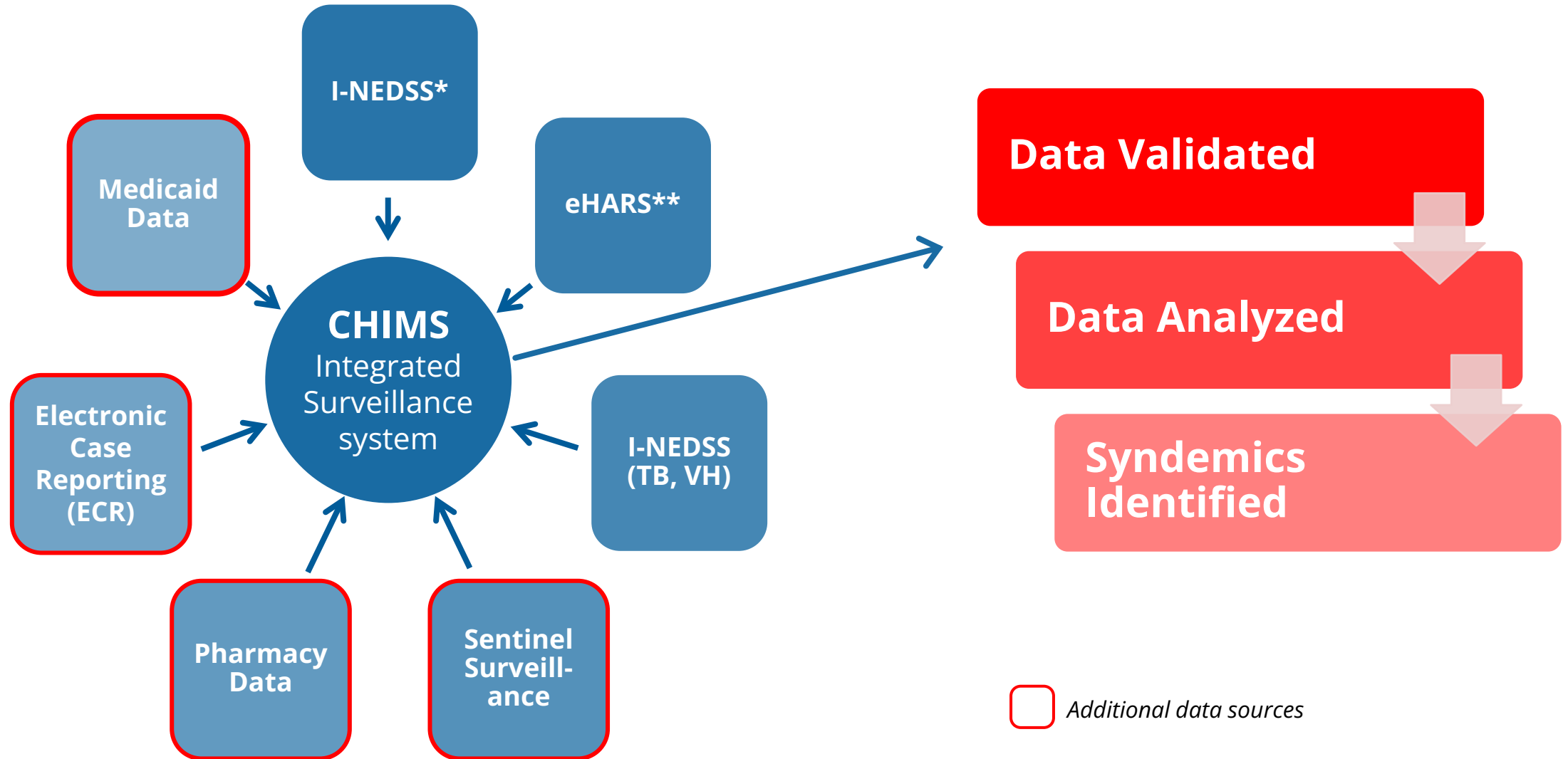
- Benefits individuals co-infected with 2+ syndemic ID
- Ex. DIS are trained to investigate chlamydia, HIV, gonorrhea, etc. to minimize number of individuals who must reach out to client and streamline referrals



Syndemic conditions are integrated into one data system

- Chicago Health Information Management System (CHIMS) on Maven surveillance platform
- Allows for documentation under one system
- Allows for **timely interventions** as outlined in Health Chicago 2025
- **Eases reporting** across multiple conditions

Syndemic Surveillance Systems: Current vs Future



* Illinois National Electronic Disease Surveillance System
** Enhanced HIV/AIDS Reporting System

Surveillance in SID Bureau

Division of Public Health Services, Office of Syndemic Surveillance

Role	HIV	Gonorrhea & Chlamydia	Male Syphilis Desk	Female & Congenital Syphilis Desk	OOJ Desk (All Conditions)	Viral Hep B & C Desk	Mpox Desk
Disease Intervention Specialist	2		1	2	1	1	
Senior Data Entry Operator		5					
Public Health Administrator		1	1	1		1	1
MD Intern				2			
Supervising Communicable Disease Investigator			1				
CDC Public Health Associate Program Staff						1	

- **Desks** are **supported** by DIS, Data Entry Operators (DEOs), Supervisors, Team Leads.
- Co-infections addressed in a syndemic way to provide **holistic experience** for provider and client, if possible.
- This approach allows for a more **focused, accessible** care model and **efficiency** in disease investigation and mitigation.

Data and Epidemiologic Context: Co-Infections, Chicago, 2022

Condition	Number of Cases	Number Coinfected with HIV	Percent Coinfected with HIV	Percent Coinfected Who are Cis Male	Percent Coinfected Who are Cis MSM
P & S Syphilis	806	203	25.2%	96.6%	85.7%
Gonorrhea	12,382	1,550	12.5%	97.3%	82.3%
Chlamydia	27,596	1,562	5.7%	93.2%	78.7%
Mpox	1,116	488	43.7%	91.8%	88.1%
Tuberculosis	111	20	18.0%	90.0%	55.0%
HCV (New Dx)	956	59	6.2%	89.9%	70.0%
HCV (Prevalent)	20,747	945	4.6%	78.3%	50.3%

Advantages: Syndemic Surveillance

- **Communication** improvement between surveillance and HIV, STI, Mpox, VH, and TB care and prevention programs
- Allows **data sharing** between programs within the Bureau with little to no effort
- **Timely** identification and **analyses** of co-morbidities and syndemics
- **Link** surveillance data with care and prevention programs (e.g., Ryan White)
- **Link** clinical services data with surveillance data
- Understand **how** quantitative data can be used for:
 - Programmatic decisions
 - Measuring effectiveness of healthcare providers in this new environment
- **Decrease Transmission/Reduction in new HIV cases through:**
 - Increased **treatment pathways**/continuity of care for those living with HIV
 - Increased **prevention pathways**
- Better tracking of **socio-behavioral** data to address identified factors using **optimized interventions**

Question for the Viewers



Which of the following elements of a syndemic approach do you think would pose the greatest challenge to your organization?

- A. Integrating programs and services
- B. Prioritizing people and places to address inequities
- C. Braiding and pooling resources and infrastructure
- D. Addressing drivers of the syndemic directly
- E. Other (please type in chat)

Implementation: Syndemic Approaches in Practice





Programmatic

- **VH** RFP for services for people who use drugs will be released as part of a long-standing **HIV** RFP
 - Braiding** funding and conditions
- **Build** current delegates' **capacity** to provide syndemic services
 - TB **housing** can perhaps be combined with SID Bureau housing in other programs
- **Resource sharing**
 - HIV Resource Hub** provides information / referrals for HIV, STI, and Mpox and is utilized by HIV and TB teams
 - Substance Use Health organizations with **linkage agreements** to TB Program can be engaged to support VH work

Collaborative Resources



Clinical

- Syndemic services at **CDPH STI** clinics
 - Screening for STIs, viral hepatitis, HIV
 - DoxyPEP and HIV PrEP initiation
 - PHQ-9 assessments and referrals for mental health
 - Vaccinations



Community Engagement

- Chicago Methamphetamine Task Force
- LGBTQ+ Health Forum
- Community Health Activations

Optimizing Contractual Resources



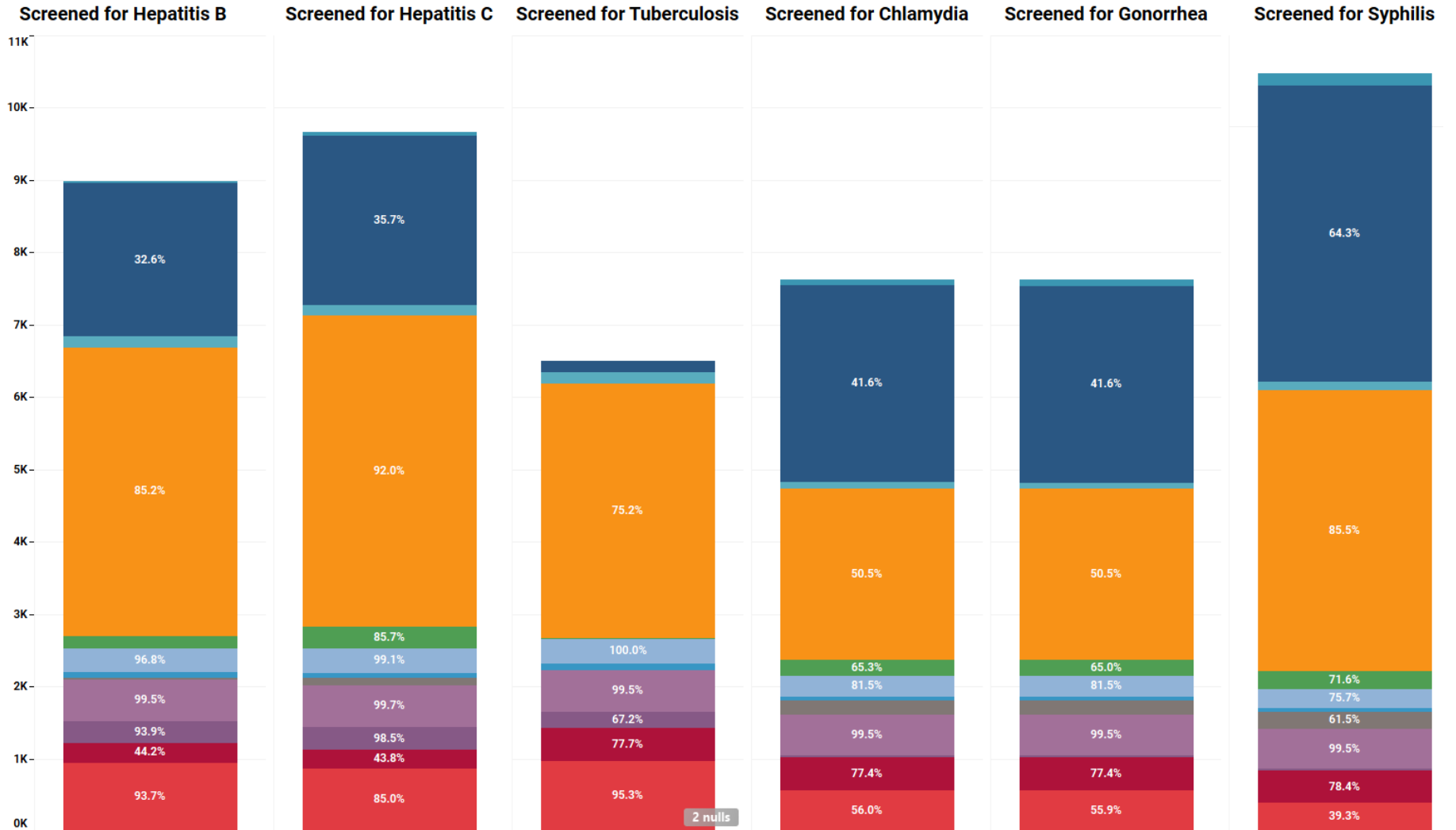
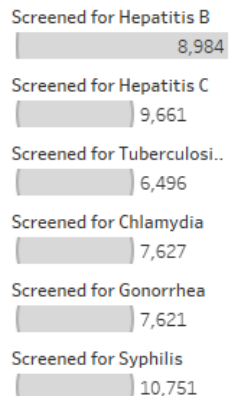
Practical Example: Population Centered Health Homes (PCHH)

- Collection of CDPH **delegate agencies** funded to care and support services that are provide **holistic, status-neutral, and syndemic-focused**
 - Local Federally Qualified Health Clinics (FQHCs) and hospitals
- Benefits
 - Well-resourced, comprehensive and integrated services, including behavioral health, subject matter experts, equipped with laboratory services as needed, multiple locations around the city, high-performing institutions, relatively low degree of needed oversight by CDPH



Practical Example

People Living with HIV Screened for Syndemic Infectious Diseases through Population Centered Health Homes Program by Agency*



Optimization of CDPH Resources



Services in CDPH STI Clinics

- Screening and treatment gonorrhea, chlamydia, syphilis
- Physical evaluation
- Rapid HIV screening
- Ancillary services such as expedited partner therapy (EPT) and Partner Services
- PrEP services
- Doxycycline Post-Exposure Prophylaxis (doxy-PEP)
- Adult vaccines
- Patient Health Questionnaire – 9 (PHQ-9) for assessment of depression symptoms
- Pregnancy tests

Future state: can we expand services to be more syndemic for the benefit of Chicago residents?

Overall Benefits and Future State



- ✓ Surveillance
- ✓ Public Health Interventions
- ✓ Epidemiology
 - Data analysis and dissemination



- ✓ Current Progress
 - Syndemic ID programs came under the same bureau in 2021
 - Increased CDC funding to enhance HBV- and HCV- delegate work



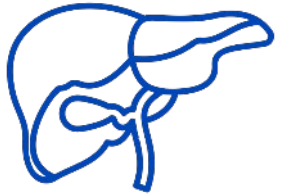
- ✓ Current Barriers
 - Funding
 - Federal funder restrictions and limitations (e.g., Ryan White)
 - TB DIS perform ancillary roles
 - Case management system implementation
 - Due to TB understaffing data migration into CHIMS is on hold.

Supporting Areas Strained by Funding



VH and TB activities are hindered by inadequate funding

- TB CDC grant continues to decrease
- Viral Hepatitis funds only two of six fully-dedicated FTEs



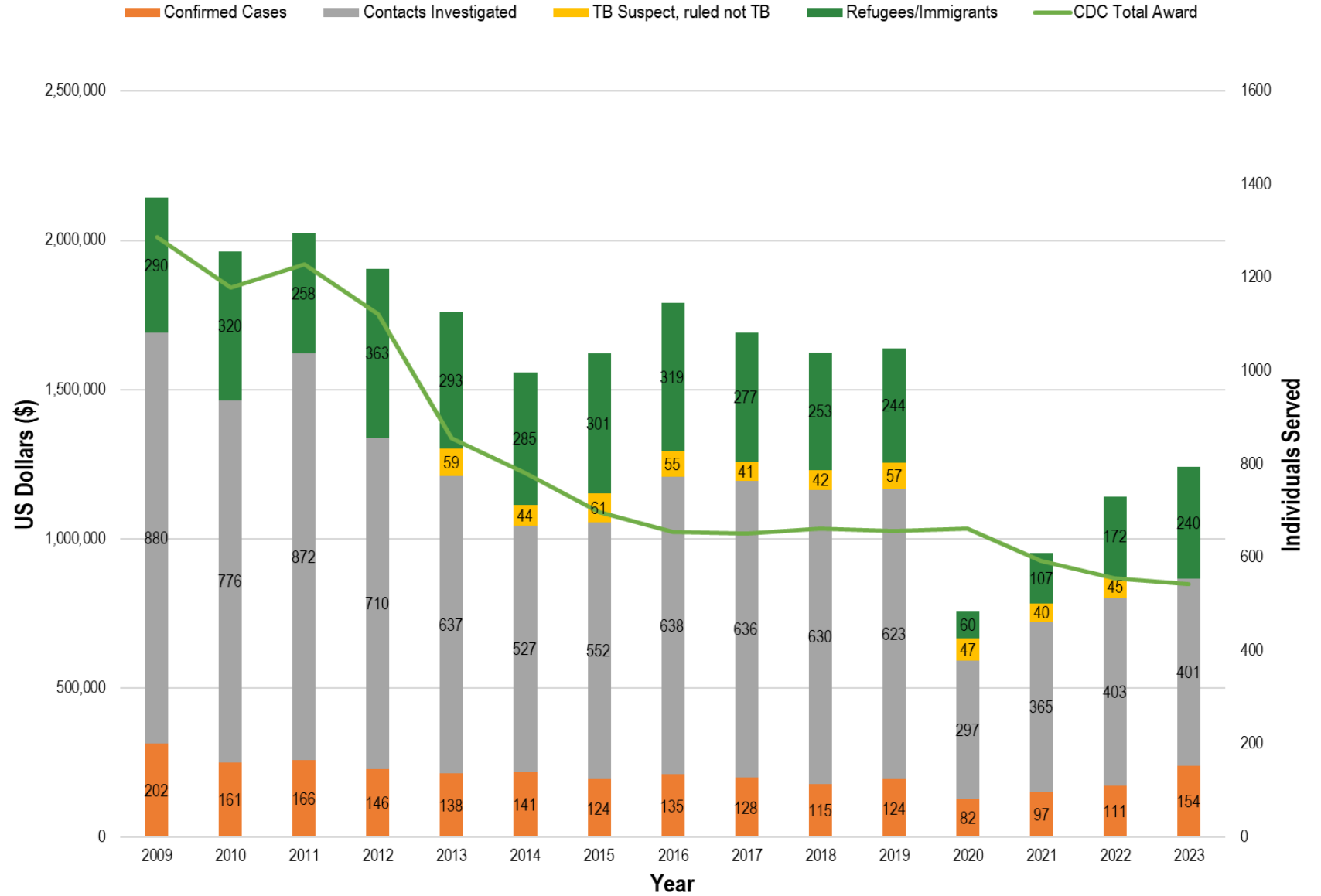
Braiding HIV, STI, VH, TB and City of Chicago **funding** supports work in underfunded areas

- Prevents loss of personnel, introduces cross-training opportunities to further syndemic approach
- **Benefits** syndemic work by funded **delegates**
- **Optimizes utilization** of current resources



Supporting Areas Strained by Funding

Trends in CDC TB Funding and Individuals Served by CDPH TB Program 2009-2023



Implementation: Future State



Successes

- Community **engagement** and increasing buy-in
- **Braiding** funding
- **Implementation** of VH activities
- **Population Centered Health Homes**

Challenges

- Getting **data** all in one place
 - Data is often housed in **disparate systems**. Matching and merging them to analyze data in a syndemic minded way can be difficult to start or maintain.
 - Case management **system implementation**
 - TB is understaffed: Data migration into CHIMS vs. use of state surveillance system, EDSS



Acknowledgments

We want to thank all members of our incredible SID Bureau team for their hard work and dedication to Chicago.

Without them none of what we've discussed today could be possible!

Key Takeaways

- ✓ A syndemic approach prioritizes and maximizes resources by **taking a coordinated approach** to intersecting epidemics.
- ✓ Syndemic approaches can be **incorporated into all areas of public health**—from surveillance to service delivery to policy.
- ✓ Implementing a syndemic model **doesn't happen overnight** and must be achieved through intentional efforts to blend programmatic and reporting structures.
- ✓ A syndemic approach **streamlines data analysis** by blending surveillance systems and reducing the red tape often required to share information between departments.
- ✓ A syndemic approach doesn't look the same at every organization. It's structured to **help your organization serve your communities best.**

A Chat with Sylvia, Kat, and Garrison



Sue
Grinnell



Sylvia
Dziemian



Kat
Kelley



Garrison
Carruth

QUESTIONS?

To ask a question, please click the



icon in the Zoom toolbar to open your Q&A Pod.

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