

# Shaping Policy Through Data Analysis: A Look at the Opioid Crisis

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## Presentation topics

- Project background
- Goals and objectives
- Study findings
- Core issues and challenges
- Case studies
- Future research topics

*“When you don’t have data that leads to rational analysis, then what you’re left with is confusion, and confusion leads to fear, and that will lead to irrational consequences.”*

*Daniel Ciccarone  
Professor, UCSF Medical School*

## Project background

- A CNA-funded research project to engage select jurisdictions and examine how data are being used to inform decision making and drive solutions—at the strategic and operational levels—to the opioid epidemic
- **Goal:** help jurisdictions harness the full potential of a data-driven response approach that more effectively and efficiently targets resources and expertise to fight the epidemic

## **Project objectives**

- Increase awareness of how local jurisdictions use data to inform opioid response policy and operations
- Identify opportunities to improve data collection, analysis, and visualization
- Identify barriers to openly sharing opioid-related data among community stakeholders and promising practices to expand access to data
- Improve collaboration across disciplines and between government, non-governmental, and private sector partners



# Participants and approach

## Jurisdictions

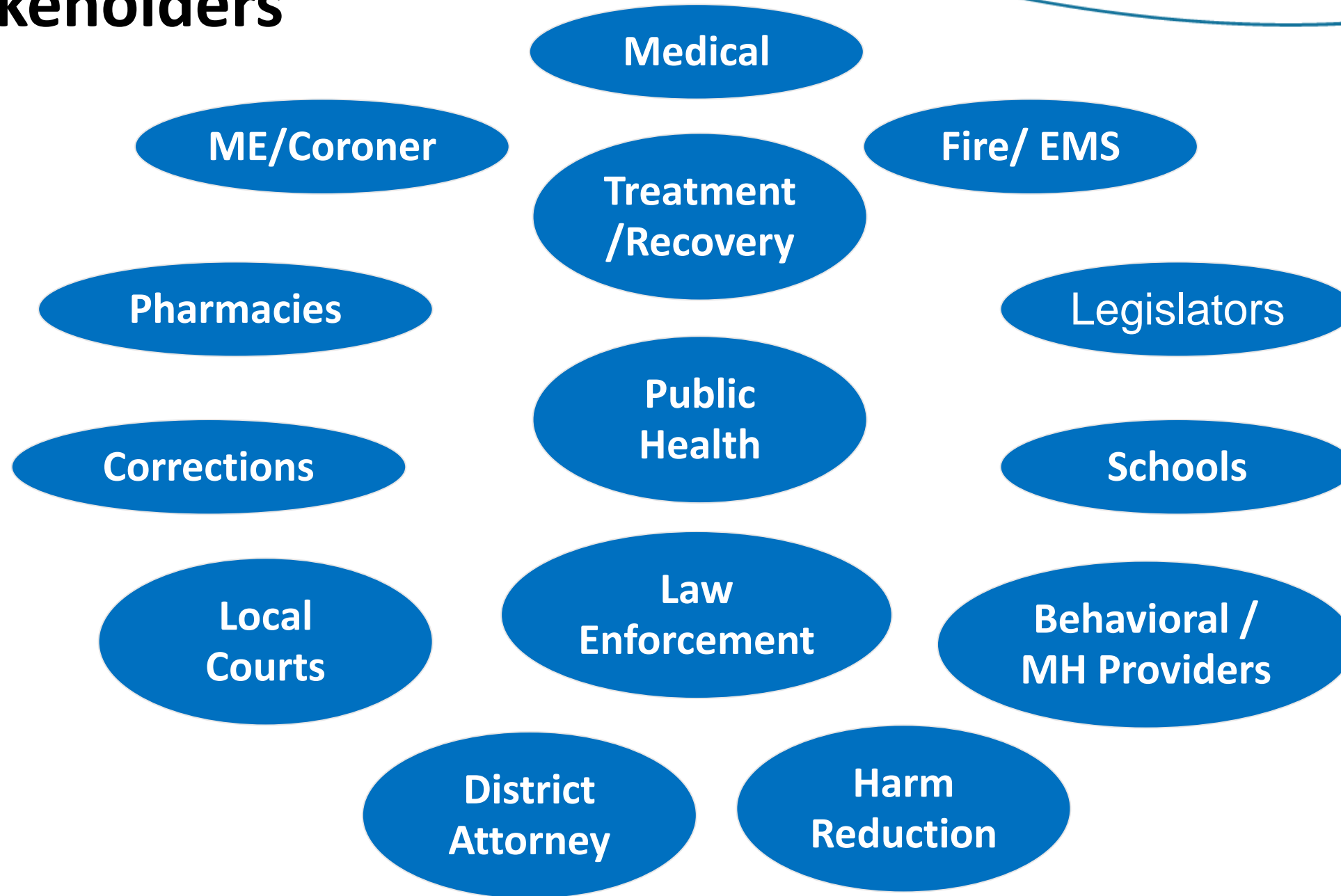
- Burlington, VT
- Lowell, MA
- Cambridge, MA
- Onondaga County, NY
- Lake County, IL
- Indianapolis, IN
- Marion, IA
- Cedar Rapids, IA
- Madison, WI
- Mohave County, AZ
- Redondo Beach, CA

## Methodology

- ✓ Web-based assessment
- ✓ One-on-one stakeholder interviews
- ✓ Group conference calls

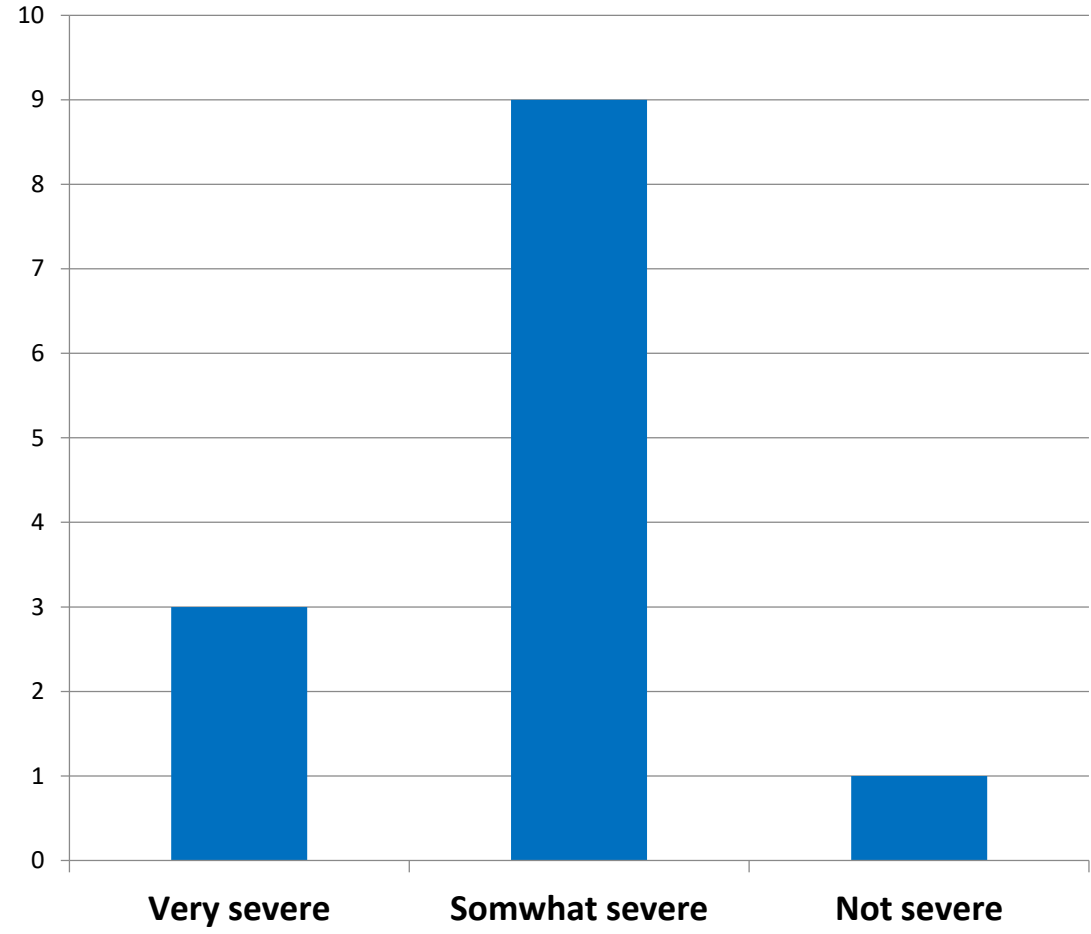


# Key stakeholders

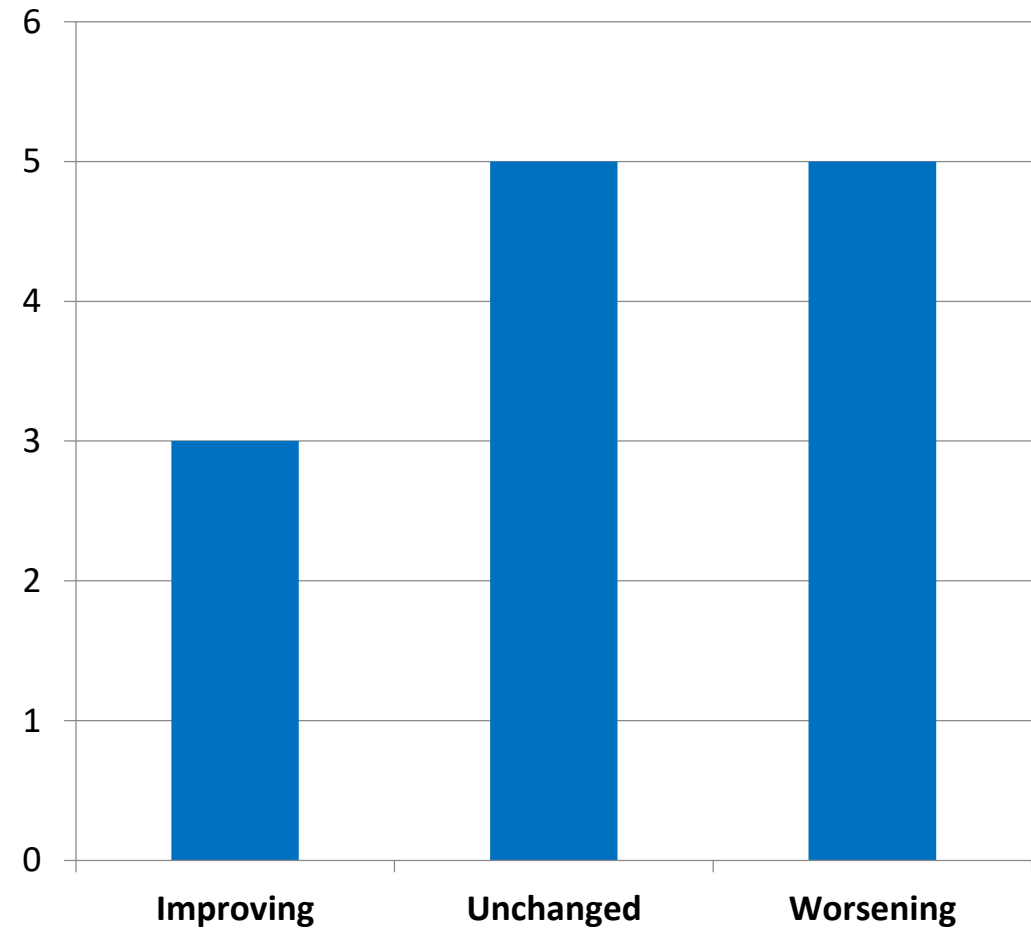


# Current state of epidemic (prescription opioids)

## Severity of *prescription* OUD



## Perceived change over last 2 years

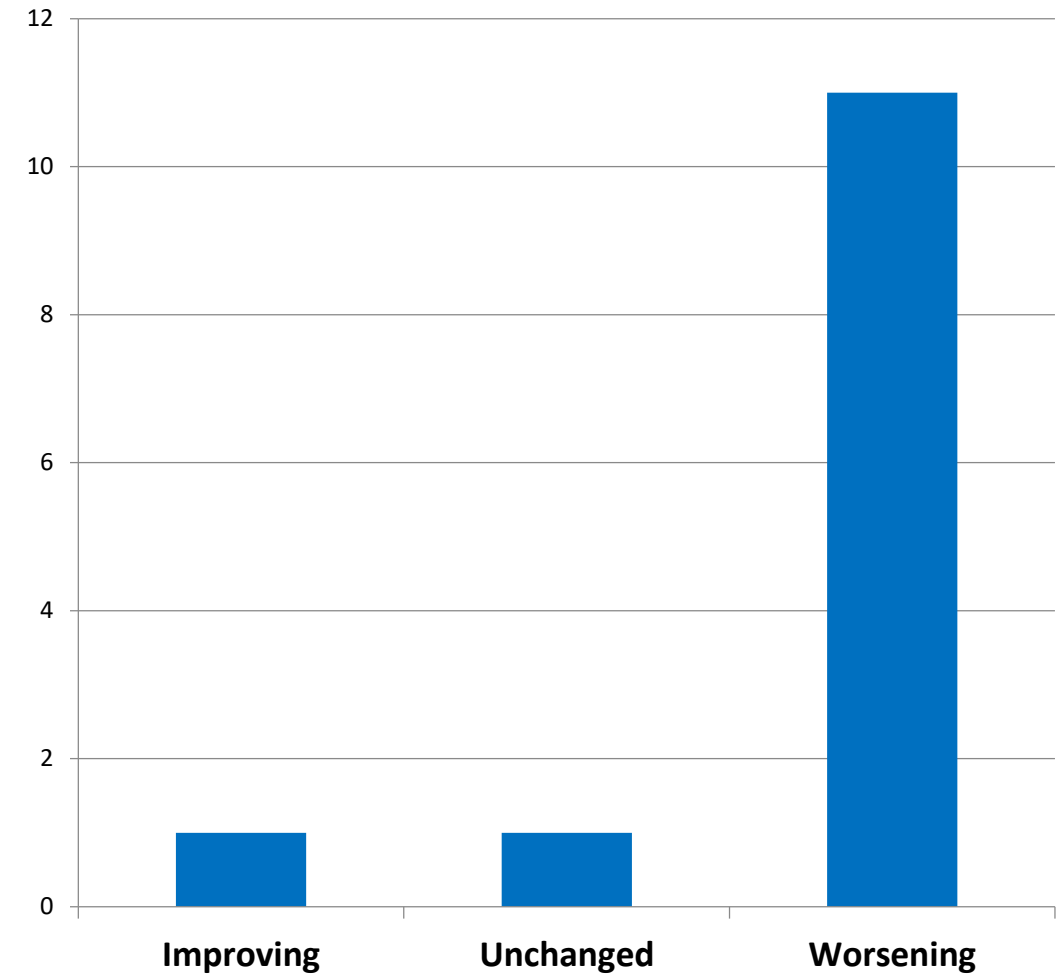
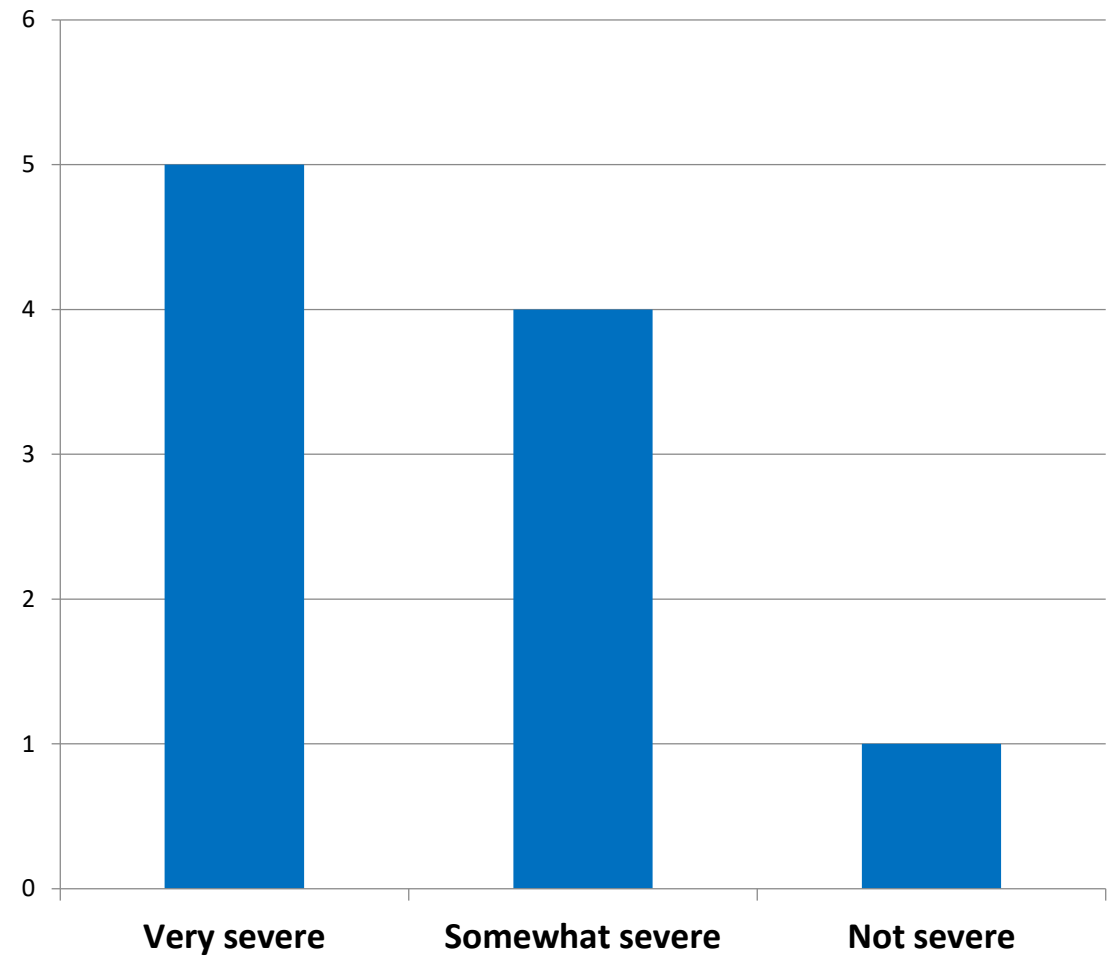




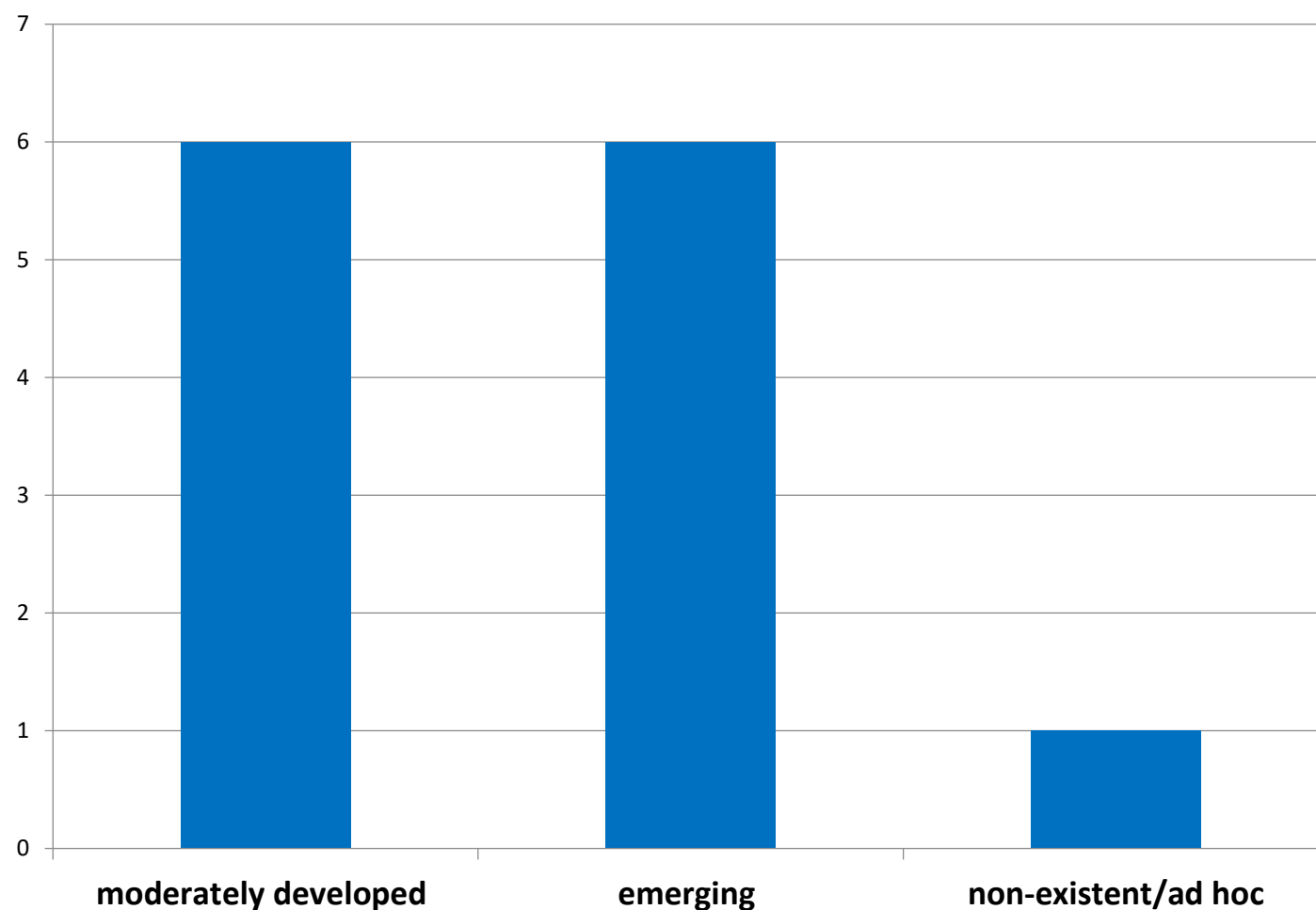
# Current state of epidemic (illicit opioids)

Severity of *illicit* opioid abuse/misuse

Perceived change over last 2 years



## Maturity of data programs



**Moderately developed:** robust data collection and analysis efforts; partners identified but *not fully integrated* in data collection and analysis; analyses are primarily *descriptive*

**Emerging:** data requirements identified; data collection and analysis activities are *irregular and/or compartmentalized* in individual agencies

## Types of data routinely collected

- Fatal and non-fatal overdose data
- Naloxone administrations and/or overdose reversals
- Death certificate data, including toxicology reports
- Criminal history information
- Opioid-related hospital and treatment center admissions
- Prescription Drug Monitoring Program (PDMP) data
- Needle exchange and prescription drop box data
- Drug seizure information
- Outreach follow-up to overdose victims
- Results of forensic laboratory analyses on drugs recovered by police

## Data collection challenges & gaps

- Absence of reliable data on overdoses not reported to police or EMS
- Varying definitions for certain data elements or metrics
- Lack of reliable data on how many doses of Naloxone were used and when and where the “save” occurred
- Lack of timely access to PDMP data
- Lack of timely access to hospital overdose data
- Lack of timely access to reports from medical examiners/coroners

## **Applying analytical results (examples)**

### **Strategic or policy level**

- Naloxone carry policy for police officers
- Naloxone distribution to LTC facility workers

### **Operational level**

- Mapping to inform locations of drug drop box or syringe exchanges
- Target education, public messaging, and outreach

### **Program assessment**

- Partnerships with universities
- Significant opportunity space for improvement

## Multidisciplinary partnerships

- Highly variable in structure and formality
- Evolved from existing relationships among stakeholders
- Goal driven (e.g., reduce deaths, get people in treatment, eliminate stigma)
- Designed to facilitate data sharing and exchange of ideas
- Focused on relationship building





## Data sharing and management

- Mostly sharing aggregated data or high-level analytical findings
  - Concerns about protecting personally identifiable information
- Identifying software to support data management and integration was a significant and time-consuming challenge
  - Establishing rules for engagement;
  - Requirements should drive the technological solution, not the other way around
- Commonly cited ways for visualizing data include bar graphs or charts, data tables, narrative summaries, geospatial maps, heat maps, and trend lines
- Storytelling is a powerful way to make the issues relatable on an individual level and to destigmatize addiction
  - Learning from survivors or the loved ones of those who have suffered addiction
  - Focuses attention on the need for action

## Common themes and lessons learned

- **Internal** challenges center mostly around resource availability—having skilled and trained staff with sufficient time to analyze and interpret the available data, while tending to other responsibilities
  - Opportunity to do more evaluation
- **Multidisciplinary partnerships** have become a fixture locally in recent years to facilitate information sharing *externally*
  - Moving towards enhanced data integration

## Common themes and lessons learned

- Data accuracy
  - Concerns about under- or over-reporting, and how big a problem it is
  - Limited confidence in reporting on non-fatal overdoses
- Data timeliness
  - Patient encounters in hospital emergency departments
  - Medical examiner/coroner data
- Balance between data accuracy and timeliness
  - Technical organizations tend to prioritize high confidence in accuracy of data
  - Response-oriented organizations tend to have higher risk tolerance

## Building and sustaining successful partnerships

- Clear understanding of what the jurisdiction hopes to achieve, defined by a set of agreed upon goals and desired outcomes
  - Direct engagement with residents (and victims) in the community
- Importance of obtaining buy-in from organizational leadership early on
- Engage community leaders (e.g., mayor, city manager or someone else within the community who is well respected and has clout)
- Identify a local champion who:
  - Understands and believes in the goals of the partnership
  - Has significant visibility and influence in the community
  - Can hold people accountable
  - Fosters an inclusive and collaborative environment

# Heroin / Opioid Overdose Deaths in Lake County, IL

## Heroin / Opioid Overdose Deaths in Lake County, IL

### Any Opioid

2013	2014	2015	2016
47	68	69	71

### Heroin

2013	2014	2015	2016
27	39	46	41

### Opioid Analgesics

2013	2014	2015	2016
19	24	29	37

\*Due to limitations with laboratory testing for heroin, some deaths reported as overdoses involving “morphine” or the generic term “opiates” may actually be heroin overdoses. Therefore, overdose deaths involving heroin may be higher than reported.



# Lake County, IL - Death by Substance

Year	All	Heroin	Fentanyl	Cocaine	RX	Heroin + Rx + Fentanyl
2009	82	30		12	40	70
2010	79	34		13	32	66
2011	81	35		5	41	76
2012	78	35		10	33	68
2013	64	25		13	26	51
2014	72	39		7	26	65
2015	69	42	5	4	18	67
2016	70	31	8	3	11	59
2017	80	29	23	12	11	62
2018	49 through April 2017	Source: Lake County Coroner and Lake County Opioid Initiative. Please note more recent numbers may be pending toxicology reports. Also numbers can vary due to multiple substances				





# Lake County, IL

- Lake County Opioid Initiative
- Programs
  - Naloxone to first responders
  - The “A Way Out” program
  - Prescription Drug Disposal
  - PDMP



The **A Way Out** Program was launched on June 1, 2016 from the Lake County Opioid Initiative, a county wide Task Force which began in 2012; modeled after the Angel Program in Gloucester, Massachusetts



## Lake County, IL



**A Way Out** - a county-wide Law Enforcement Assisted Diversion Program, to fast-track users to substance abuse programs and services.

- Available 24 Hours a Day, 7 Days a Week, 365 Days a Year
- Participants will **NOT** be charged for possession of narcotics or paraphernalia as long as participant voluntarily presents to police station or officer for assistance.

# Pre-arrest Diversion



- Pre Arrest Diversion – diverting eligible individuals away from criminal justice systems and into behavioral health interventions.
  - Reduces crime and recidivism.
    - Half of violent crime offenders and theft of property offenders say they committed crimes while under the influence.
  - Improves community / law enforcement relations.
  - Reduces burden on the justice system.
    - About 80,000 Americans are incarcerated for Opioid related crimes alone.
  - Restores lives / families
  - Reduces costs
    - Every dollar spent on treatment, saves up to three dollars in crime reduction.

# Partners

- Lake State's Attorney's Office
- Antioch Police Department
- Deerfield Police Department
- Grayslake Police Department
- Gurnee Police Department
- Lake County Sheriffs Department
- Libertyville Police Department
- Mundelein Police Department
- Lake Forest Police Department
- Round Lake Beach Police Department
- Round Lake Park Police Department
- Zion Police Department
- Lake Zurich Police Department
- Waukegan Police Department
- Lake County Health Department
- Nicasa Behavioral Health Services
- Lake County Probation
- Lake County Bar Association
- Lake County Judges
- 12 Step Community
- Advocate Condell Hospital
- Advocate Good Shepard
- Northwestern Memorial Health Care (Lake Forest/Grayslake)
- Vista Health
- Live4Lali
- Gateway Foundation
- Soft Landing Recovery
- Rosecrance
- Omni Youth Services
- Brightside Clinics



# Program documents



- Memorandum of Understanding Between Partners
  - [http://police.mundelein.org/sites/default/files/shared-files/A Way Out MOU.pdf](http://police.mundelein.org/sites/default/files/shared-files/A%20Way%20Out%20MOU.pdf)
- Program Participant Waiver
  - [http://police.mundelein.org/sites/default/files/shared-files/A Way Out Waiver.pdf](http://police.mundelein.org/sites/default/files/shared-files/A%20Way%20Out%20Waiver.pdf)
- Brief Screening Tool-conducted via phone
  - [http://police.mundelein.org/sites/default/files/shared-files/A Way Out screening tool.pdf](http://police.mundelein.org/sites/default/files/shared-files/A%20Way%20Out%20screening%20tool.pdf)



# Combating the Opiate Crisis in the City of Lowell: A Multifaceted Approach

Lowell, Massachusetts Police Department

# Investigation, Collaboration, Intervention, Treatment and Research

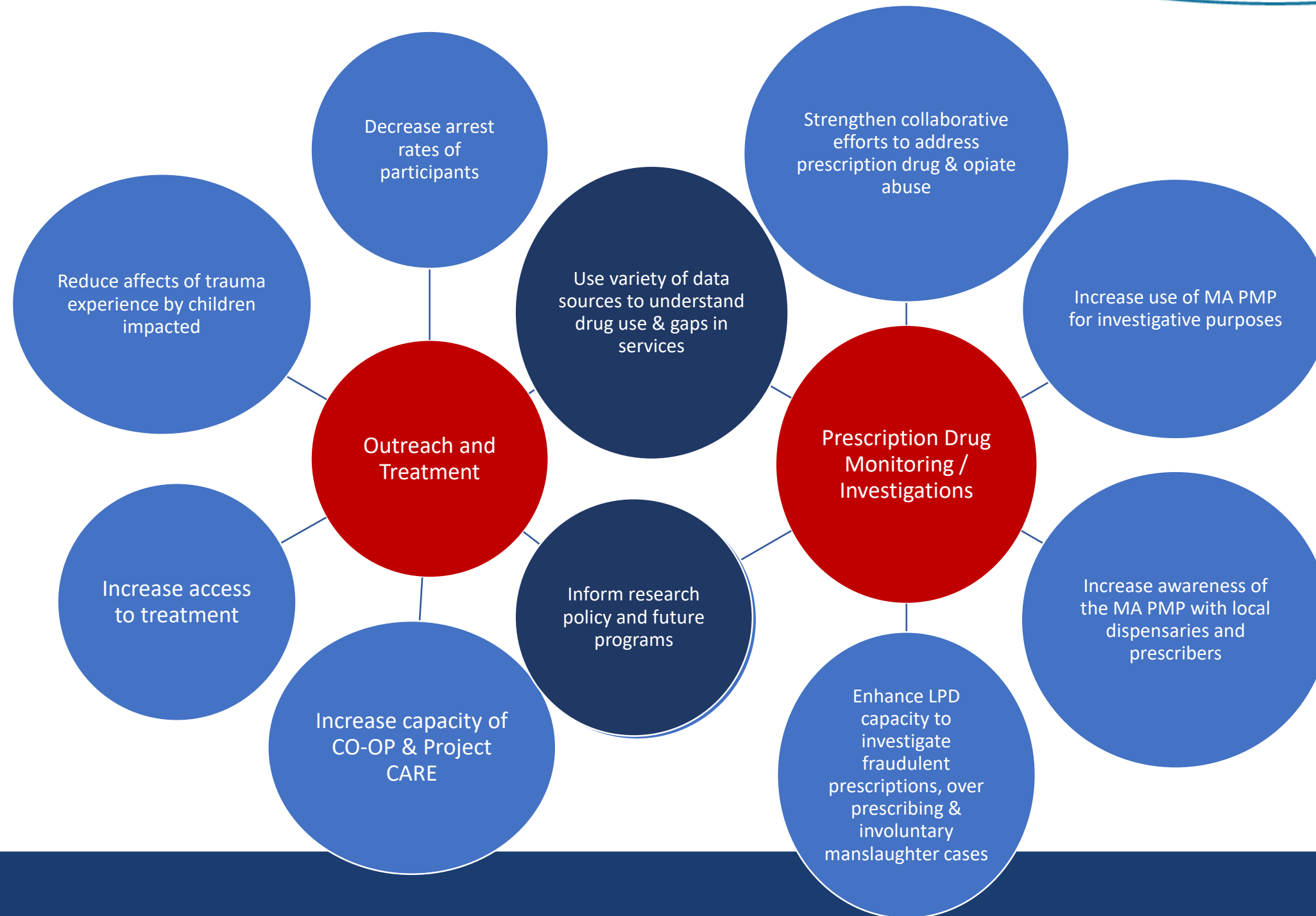
Community Opioid Outreach Program (CO-OP)

Project CARE

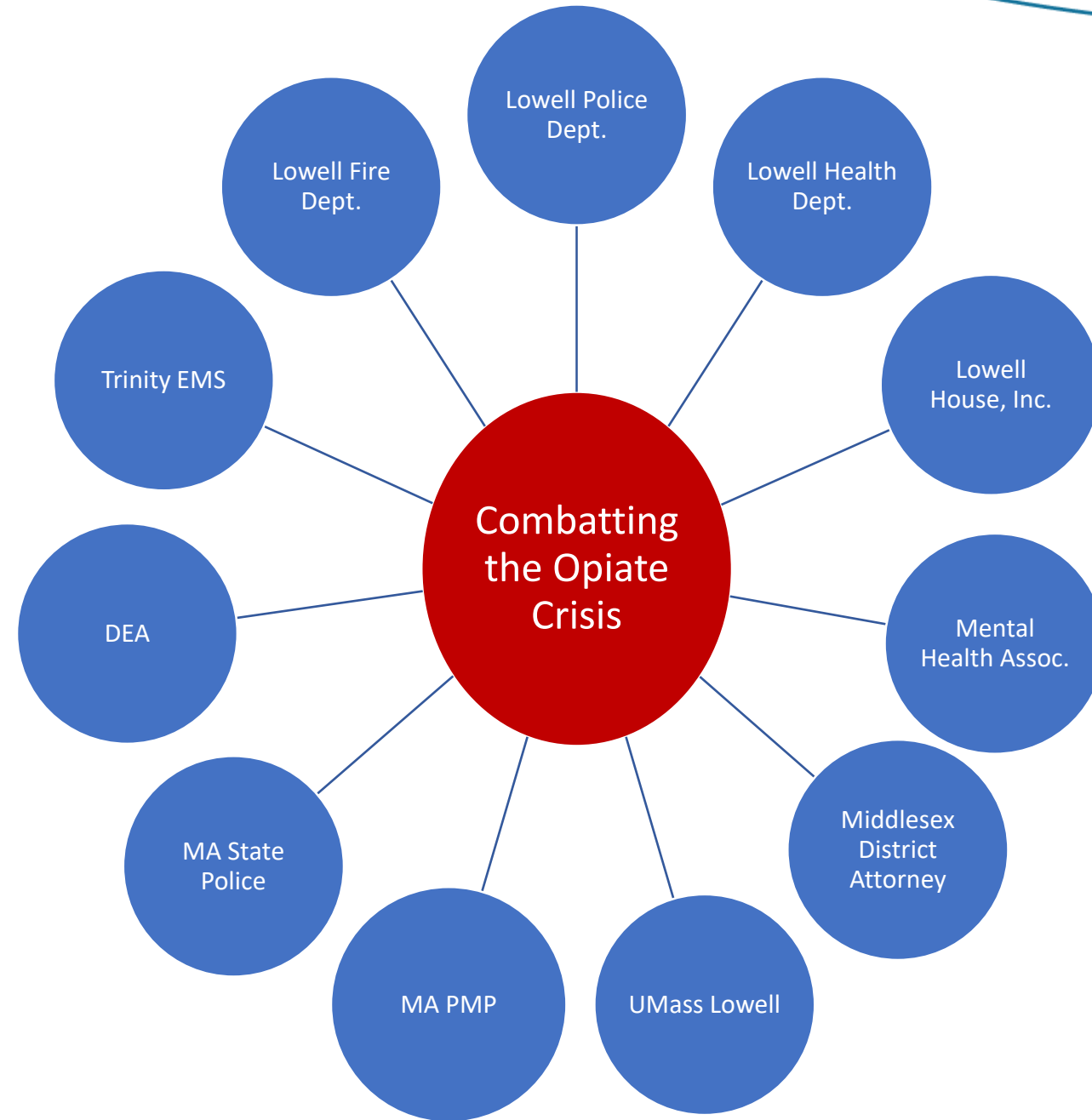
MA Prescription Monitoring Program

LPD & other Local, State & Federal LE Partners

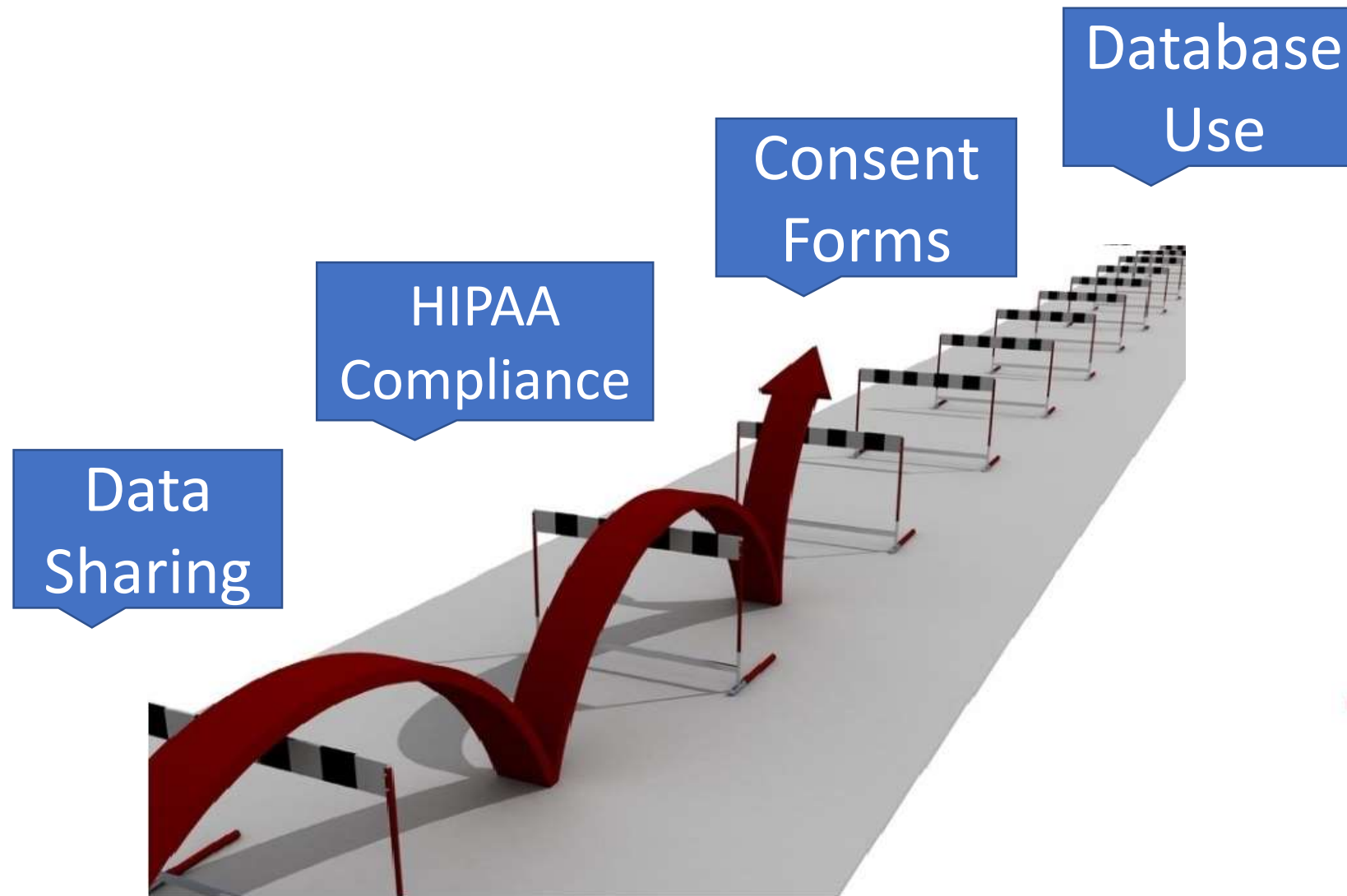
# Program Connections



# Community Partners



# Data Sharing and HIPAA



KNOW THE RULES!



## Program (CO-OP) and Project CARE

CO-OP involves the PD, FD, EMTs, public health partners, social workers, etc.

- First responders interview recent overdose survivors to connect them with treatment
- UMass Lowell is partnering with the team on the CO-OP program

Project CARE focuses on children who witness overdoses

- Provide rapid response intervention within 24 to 48 hours
- First responder contacts the health clinician on scene if evidence of a child present (car seat, toys, etc.), or as soon as information of a child in the home arises
- Recommend child sees a health clinician (this is **voluntary**)
  - Guardian contacted to offer the child a variety of services, then child goes through a **trauma informed care** process.
  - Goal to break the cycle of drug use
  - Team works closely with the MA Institute of Families and Children



# Remaining challenges and research agenda

## Opportunities for focused research

- Studying Collaboration
- Life Course Trajectory Analysis
- Social Network Analysis

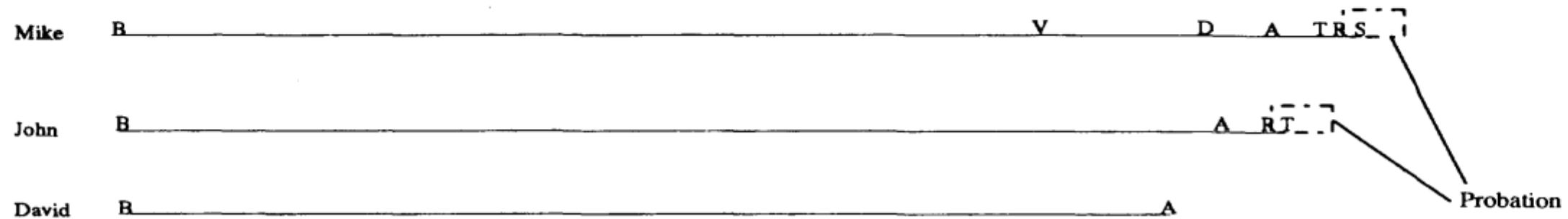
# Studying collaboration

- Consider collaboration as an ‘outcome’, not a ‘process’
- Measure several dimensions of collaboration over time, and adjust according to what is learned:
  - Breadth
  - Depth
  - Trust
  - Information sharing
  - Defined roles
  - Participation
  - Communication
  - Organizational structure and sophistication

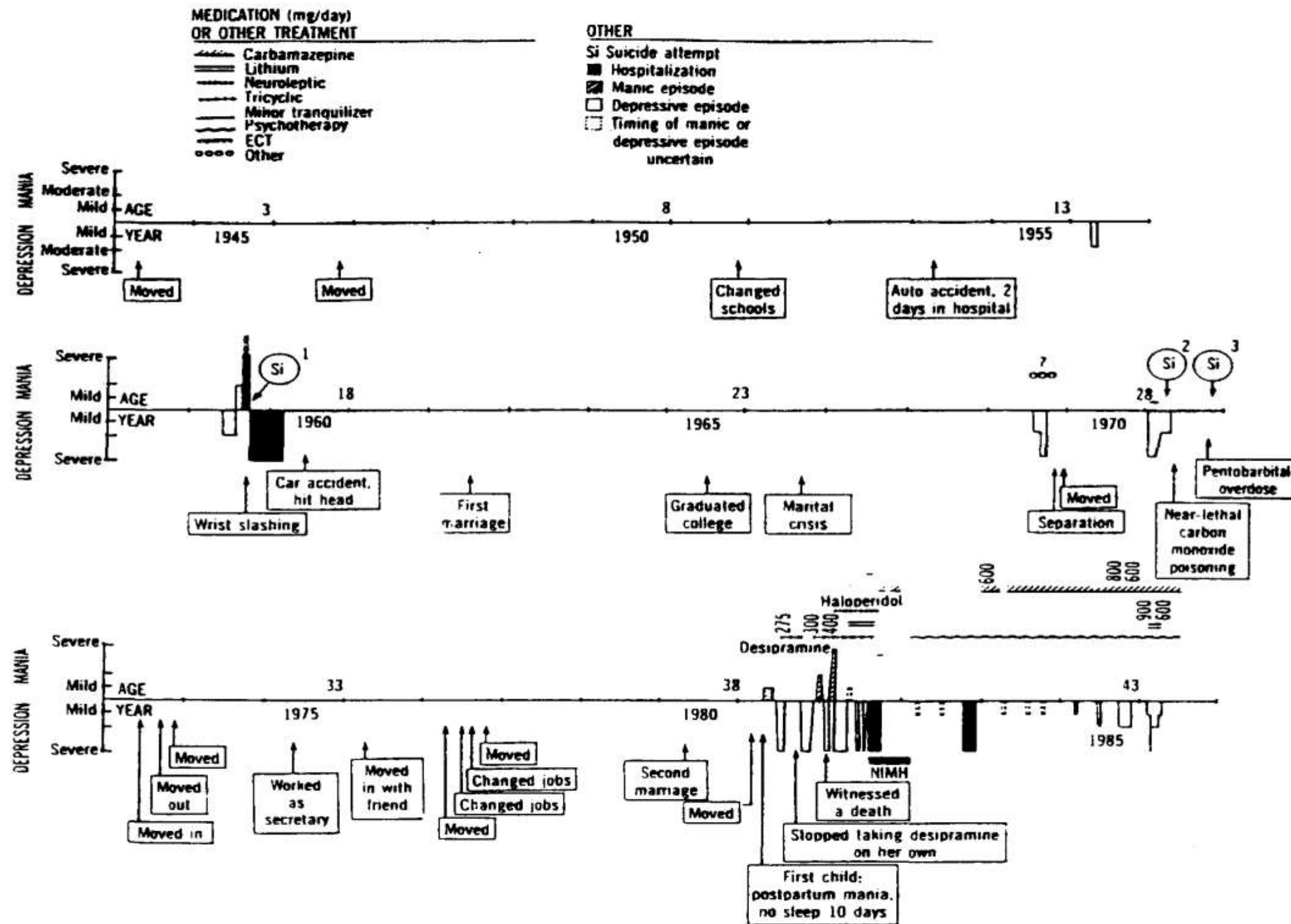
# Life course analysis

- Life course criminology

**Figure 1: Arrest Career Patterns of Three Youths**



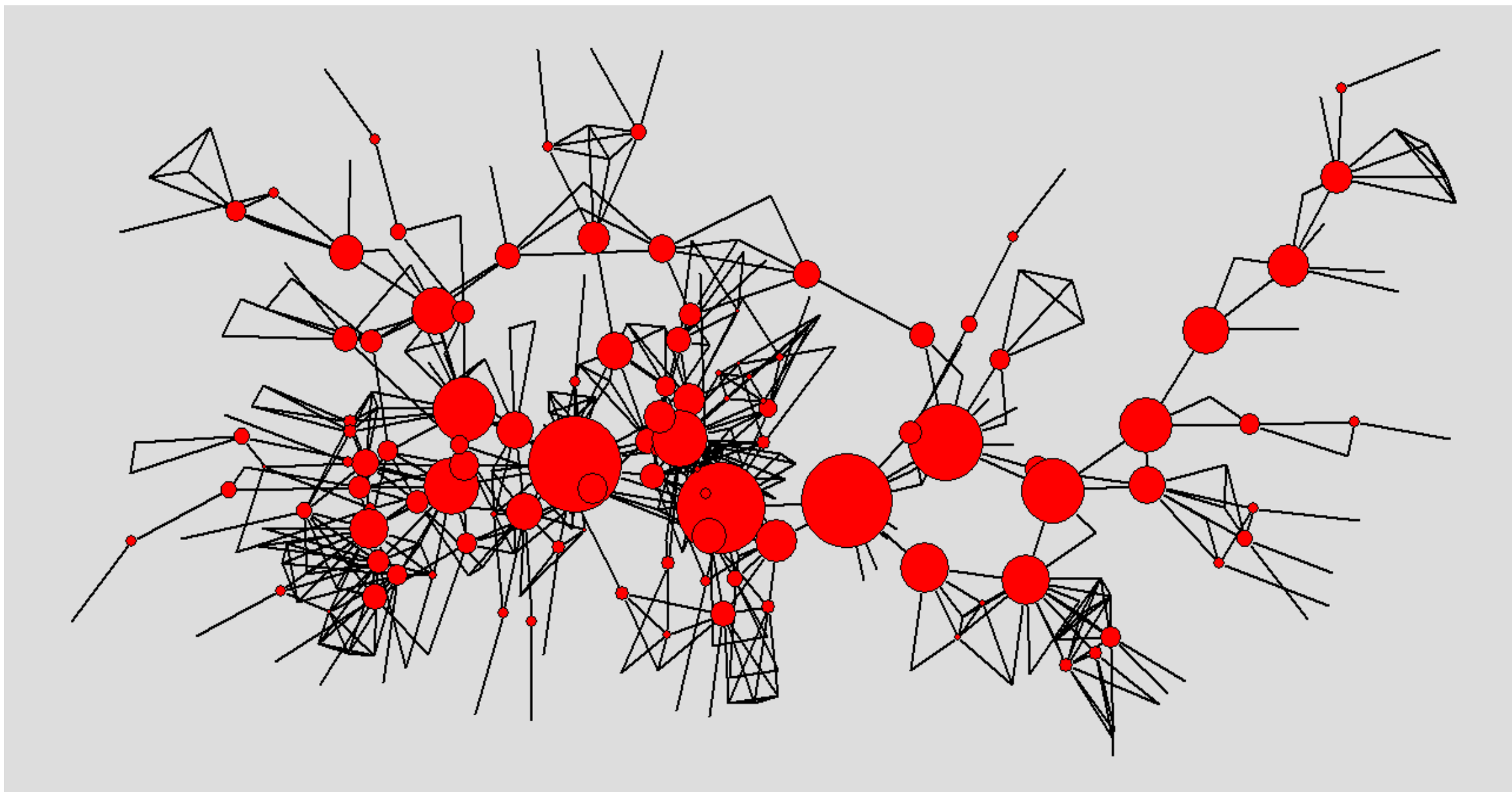
**LEGEND:**  
 A: Aggravated assault  
 B: Birthdate  
 D: Drug possession  
 R: Armed robbery  
 S: Disorderly conduct  
 T: Theft  
 V: Vandalism



## Trauma-informed care and child exposure to overdose

- Safety
- Trustworthiness and transparency
- Peer support and mutual self-help
- Collaboration and mutuality
- Empowerment, voice, and choice
- Cultural, historical, and gender issues

# Social network analysis



# Conclusions

- Opioid planning and strategizing is mired in traditional data sharing and access problems
- The epidemic is not behind us, and it points toward a larger, broader concern with illicit substances
- There are many, many affected stakeholder communities
- Law enforcement is moving towards a service-oriented approach
- Opportunities for creative data analysis and visualization
- Current information gaps may pave the way toward more collaborative approaches to data collection



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