Leveraging Social, Behavioral, and Health Data
Harold Rogers PDMP – National Meeting
June 26, 2019
Regional Judicial Opioid Initiatives

Components

• Judicially led effort
• Multi-state
• Champions – Chief Justice of Supreme Court (and State Court Administrators)
• Charter (purpose/membership)
• Recognition of effects (complexity/fatality) on:
  Criminal dockets
  Family Court dockets
• Courts are an active part of the solutions
• Responses should be driven by data (when available)
Statistically significant drug overdose death rate increase from 2016 to 2017, US States

[Map showing the increase in overdose death rates in various states, with Maine highlighted in a circle.]
Number and age-adjusted rates of drug overdose deaths by state, US 2017

Age-adjusted death rates were calculated as deaths per 100,000 population using the direct method and the 2000 standard population. SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.
Attention on areas around state boundary lines (access to treatment or services, data sharing, hot spots)

Appalachia/Midwest (2017)

IL, IN, KY, MI, NC, TN, OH, WV

New England (2019)

CT, MA, ME, NH, RI, VT
Consider data as a region and when appropriate allow regional data to influence decisions.

Appalachia/Midwest (2017) IL, IN, KY, MI, NC, TN, OH, WV

New England (2019) CT, MA, ME, NH, RI, VT
Data Approach

• Increase data sharing across state borders and disciplines.
  • Share aggregate data sets, including multiple systems, within and across the multi-state region. (e.g. OH merge and review of PDMP and Child Welfare data)
  • Share identifiable data across state borders (e.g. PDMPs)
  • Compare “like” data across the region to inform practices (e.g. PDMP data dictionary applied to data)

• Use data to make decisions.
  • Identify hot spots areas across the region with a focus on state borders
  • Focus interventions on the identified hot spot areas
Data Call (Researcher – Wayne State University)

**Prescription Drug Monitoring Data**
- Number of total opioid prescriptions dispensed
- Number of total opioid pills dispensed
- Number of unique patients receiving an opioid
- Number of opioid-benzodiazepine co-prescriptions
- Number of opioid prescriptions with daily dosage (MME) >50

**Vital Records**
- Number of drug overdose deaths
- Number of overdose deaths with opioids being a contributing factor
- Number of overdose deaths with undetermined substances

**Hospital and Emergency Medicine**
- Number of ED visits with opioids as a contributing factor
- Number of hospitalizations with opioids as a contributing factor
- Number of babies born with neonatal abstinence syndrome (NAS)

**Naloxone Administration (first responders)**
- Number of naloxone administrations by emergency medical services

**Substance Abuse Treatment**
- Number of opioid treatment programs (OTPs)
- Number of substance abuse treatment admissions due to opioids
- Number of patients receiving medication assisted treatment (MAT)

**Child Welfare / Family Services**
- Number of child welfare referrals
- Number of cases where a child was removed from the home
- Number of cases... because of parental drug use
- Number of cases... because of parental opioid use

**Law Enforcement / Courts**
- Number of drug related arrests
- Number of opioid related arrests
- Number of drug related prison incarcerations
- Number of opioid related prison incarcerations

Dr. Brad Ray, Director, Center for Behavioral Health and Justice, Wayne State University
### Data Availability by State

<table>
<thead>
<tr>
<th>Data Category</th>
<th>KY</th>
<th>IL</th>
<th>IN</th>
<th>MI</th>
<th>OH</th>
<th>TN</th>
<th>WV</th>
<th>NC</th>
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</thead>
<tbody>
<tr>
<td>Prescription Drug Monitoring Program (PDMP)</td>
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<tr>
<td>Vital Records (Mortality)</td>
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<tr>
<td>Hospital and Emergency Medicine</td>
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<tr>
<td>Naloxone Administration</td>
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<tr>
<td>Substance Abuse Treatment</td>
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<tr>
<td>Child Welfare/Family Services</td>
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</table>
## Data Call (Researcher – Wayne State University)

### Naloxone Administration (first responders)

<table>
<thead>
<tr>
<th>Data Points</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of naloxone administrations by emergency medical services (EMS)</td>
<td>by YEAR: KY, IN, MI, OH, WV; RANGE: KY-2017, IN-2014, MI-2015, OH-2010, WV-2015; by MONTH: IN, MI, OH, WV; by COUNTY: KY, IN, MI, OH, WV; by ZIP CODE: IN, OH, WV</td>
</tr>
<tr>
<td>Number of naloxone administrations by law enforcement</td>
<td>by YEAR: KY, IL, TN, WV; RANGE: KY-2017, IL-2013, IN-2016, TN-2017, WV-2015; by MONTH: IL, TN, WV; by COUNTY: KY, IL, TN, WV; by ZIP CODE: IN, TN, WV</td>
</tr>
<tr>
<td>Number of persons with repeat naloxone administrations (different days, not same event)</td>
<td>by YEAR: IL, IN, WV; RANGE: IL-2013, IN-2015; by MONTH: IL, IN, WV; by COUNTY: IL, IN, WV; by ZIP CODE: WV</td>
</tr>
</tbody>
</table>
Data Call (Researcher – Wayne State University)

- Establish RJOI and RJOI stakeholders as a credible source to request information
- Relationship building
- Data Agreements
- Use the state’s Judges to request the data
### Prescription Drug Monitoring Program (PDMP)
- Total opioid prescriptions dispensed
- Total opioid pills dispensed
- Unique patients receiving an opioid
- Opioid-benzodiazepine co-prescriptions
- Opioid prescriptions with daily dosage of MME >50
  ... received opioid prescriptions from 4 or more different prescribers in the past month

### Vital Records (Mortality)
- Drug overdose deaths
- Overdose deaths with opioids being a contributing factor
- Overdose deaths with undetermined substances as being a contributing factor

### Hospital and Emergency Medicine
- Emergency department (ED) visits with opioids as a contributing factor
- Hospitalizations with opioids as a contributing factor
- Number of babies born with neonatal abstinence syndrome

### Naloxone Administration (first responders)
- Naloxone administrations by emergency medical services (EMS)
- Naloxone administrations by law enforcement
- Persons with repeat naloxone administrations (different days, not same event)

### Substance Abuse Treatment
- Inpatient opioid treatment programs (OTPs)
- Outpatient opioid treatment programs (OTPs)
- Substance abuse inpatient treatment admissions due to opioids
- Substance abuse outpatient treatment admissions due to opioids
- Patients receiving inpatient medication assisted treatment (MAT)
- Patients receiving outpatient medication assisted treatment (MAT)
- Office-based opioid treatment (OBOT) programs

### Child Welfare / Family Services
- Child welfare referrals
- Cases where a child was removed from the home
- Cases where a child was removed from the home because of parental drug use
- Cases where a child was removed from the home because of parental opioid use

### Criminal Justice (arrests, court cases, incarcerations)
- Adult drug related court cases
- Adult opioid related court cases
- Juvenile drug related court cases
- Juvenile opioid related court cases
- Adult drug treatment courts
- Juvenile drug treatment courts
- Drug related prison incarcerations
- Opioid related prison incarcerations
- Locations of jails with medication-assisted-treatment (MAT) programs
- Locations of prisons with medication-assisted-treatment (MAT) programs

<table>
<thead>
<tr>
<th>Data Received</th>
<th>State does not have data</th>
<th>Have NOT received from state</th>
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</table>
Data Call (Researcher – Wayne State University)
Regional Judicial Opioid Initiative

Demographic and economic statistics compiled from the 2017 ACS 5-year Estimate dataset from the United States Census Bureau.

Select Display Value
- Rate (per 100K ppl)
- Count

Choose to display Rate or Count for the below list of available measures.

- Overdose Mortality Statistics
  - Age Adjusted Rate*
  - Crude Rate*
  - Number of Deaths*

Population Characteristics
- Socio Demographic
  - Economic

Opioid Measures
- Buprenorphine Prescribers
- Drug Related Case Filings
- Emergency Department Data
- Prescription Drug Monitoring Program Stats

Region:
- Illinois
- Indiana
- Kentucky
- Michigan
- North Carolina
- Ohio
- Tennessee
- West Virginia
What we learned about the data:

• Very difficult to leverage data across system/states to better understand trends in overdose epidemic.
• Major gaps in data infrastructure
Data – Social Network Analysis

Measure - what is the nature and quality of collaboration to address the opioid epidemic among RJOI stakeholders?

SNA is a method to understand a community by mapping the relationships that connect the network. A network map is a visualization of SNA, where each node represents an individual and each tie represents a social connection between them. Statistical analyses performed in SNA describe:

1. the size of the network,
2. how “busy” the network is,
3. the presence of any sub-groups in the network,
4. the extent to which individuals are connected/disconnected, and
5. key players in the network.
Contact

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