



**REGIONAL JUDICIAL
OPIOID INITIATIVE**

Multi-State Regional Approach
Data Provides Direction
2020 COAP National Meeting

March 11, 2020

Regional Judicial Opioid Initiatives

Components

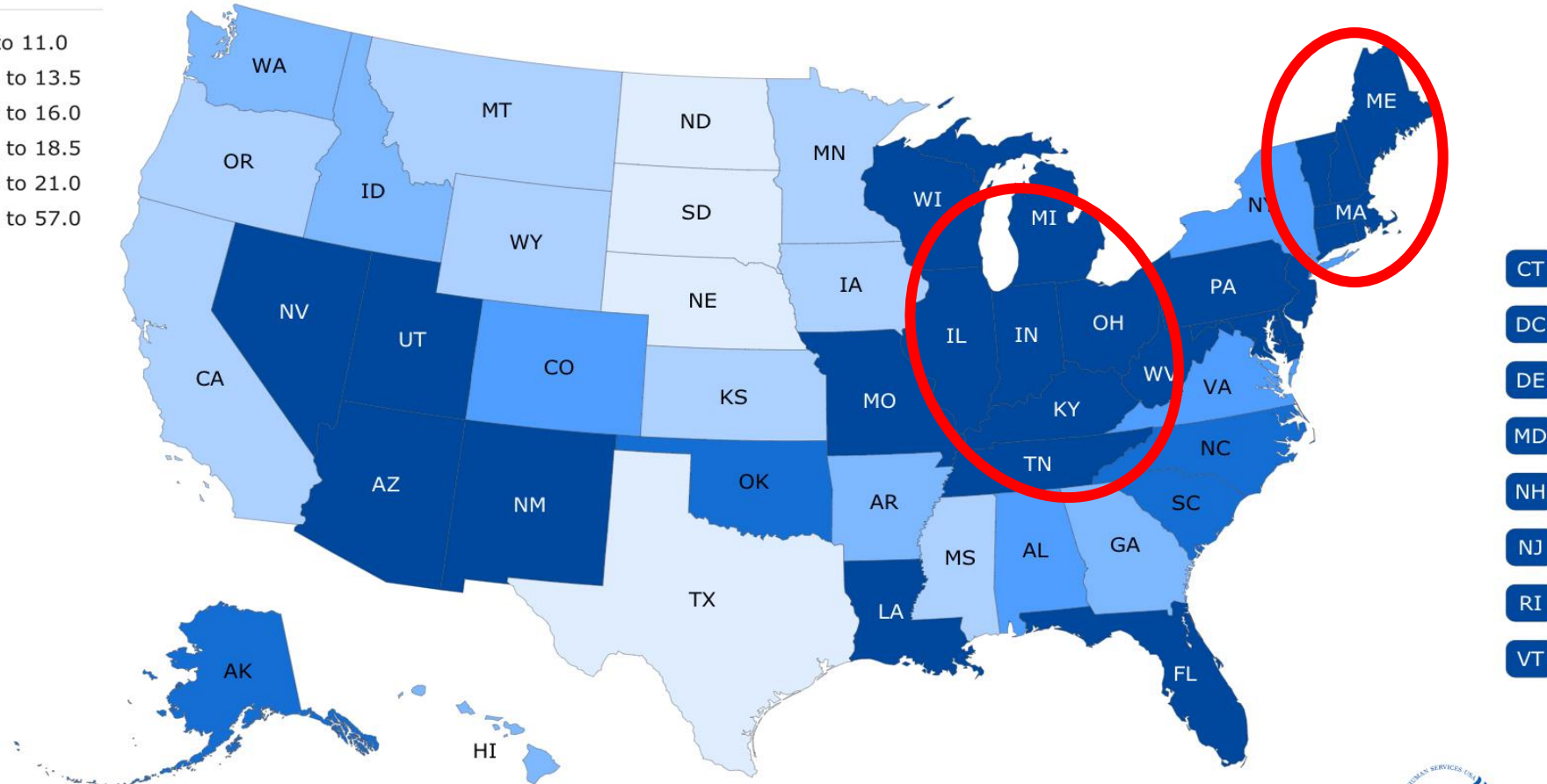
- Judicially led effort
- Multi-state
- Champions – Chief Justice of Supreme Court (and State Court Administrators)
- Charter (purpose/membership)
- Recognition of effects (complexity/fatality) on:
 - Criminal dockets
 - Family Court dockets
- Courts are an active part of the solutions
- Responses should be driven by data, when available



Number and age-adjusted rates of drug overdose deaths by state, US 2017

Legend

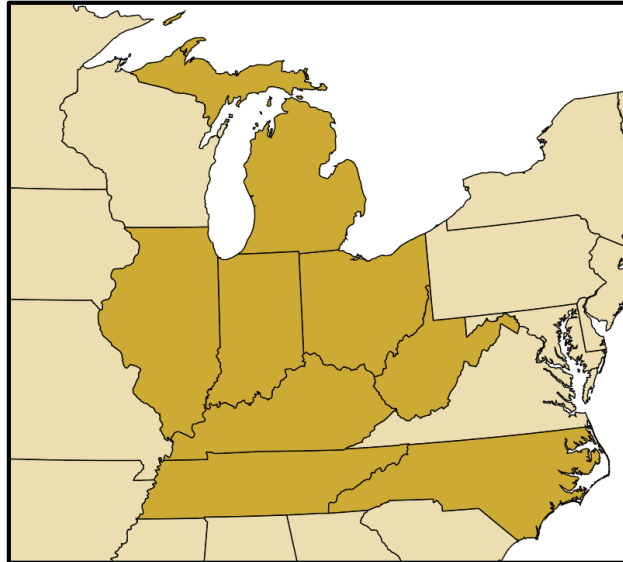
- 6.9 to 11.0
- 11.1 to 13.5
- 13.6 to 16.0
- 16.1 to 18.5
- 18.6 to 21.0
- 21.1 to 57.0



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.

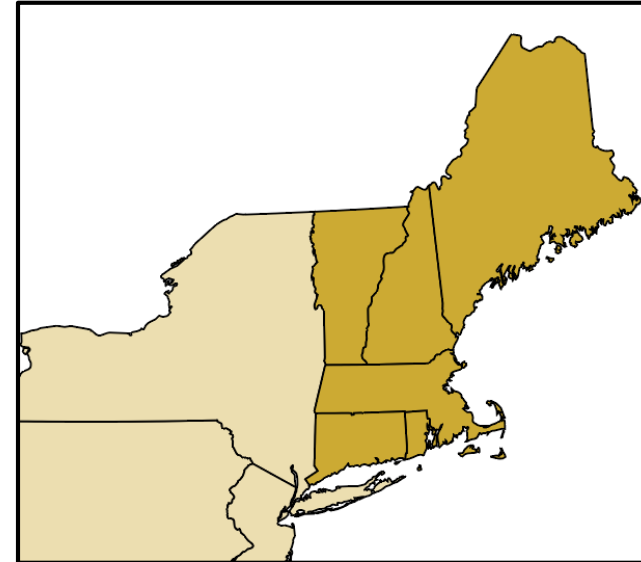


Appalachian/Midwest (2017)



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

New England (2019)

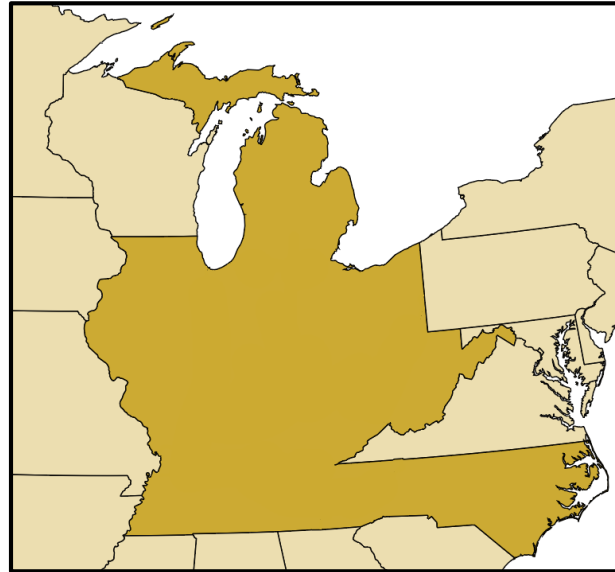


CT, MA, ME, NH, RI, VT

Attention on areas around state boundary lines
(Access to treatment or services, data sharing, hot spots)

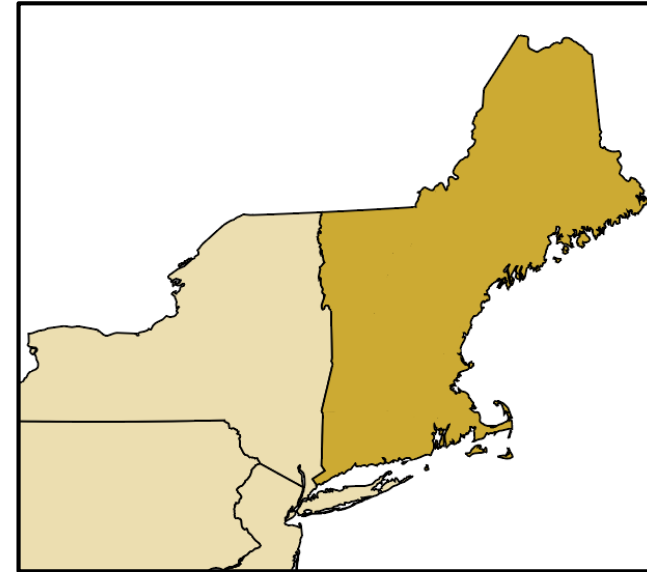


Appalachian/Midwest (2017)



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.



Regional Judicial Opioid Initiative

Areas of Work

Appalachian/Midwest (2017)

- PDMP
- Child Welfare
- Evidence Based Practices (awareness/training)
- Treatment Capacity
- Pilot Programs
 - Project ECHO
 - Telemedicine

New England (2019)

- Training/Education (regionally)
- Regional Resources (leverage the collective)
- Access to Services Across State Boundaries
- Evidence Based Practices
- Regional Outreach and Public Information



Regional Judicial Opioid Initiatives

Success during implementation:

- Judiciary engagement in the Opioid/Substance Use Disorder effort is increased;
- Building a network for judges;
- Access to regional data;
- Platform to share promising practices and learn from each other (state to state; discipline to discipline);
- Leverages the ability of the judge to bring people to the table;
- Collective social capital;
- State teams have strengthened.



RJOI - Making Informed Decisions

What we learned about the data:

- Very difficult to leverage data across system/states to better understand trends in overdose epidemic.
- Measurements from one state to another are not standardized.
- Major gaps in data infrastructure.



We work with local communities, organizations, and behavioral health and law enforcement agencies across Michigan to provide

EXPERTISE, EVALUATION, TRAINING, and TECHNICAL ASSISTANCE

to optimize diversion of individuals with mental health or substance use disorders from jail or prison.

We Help Stakeholders

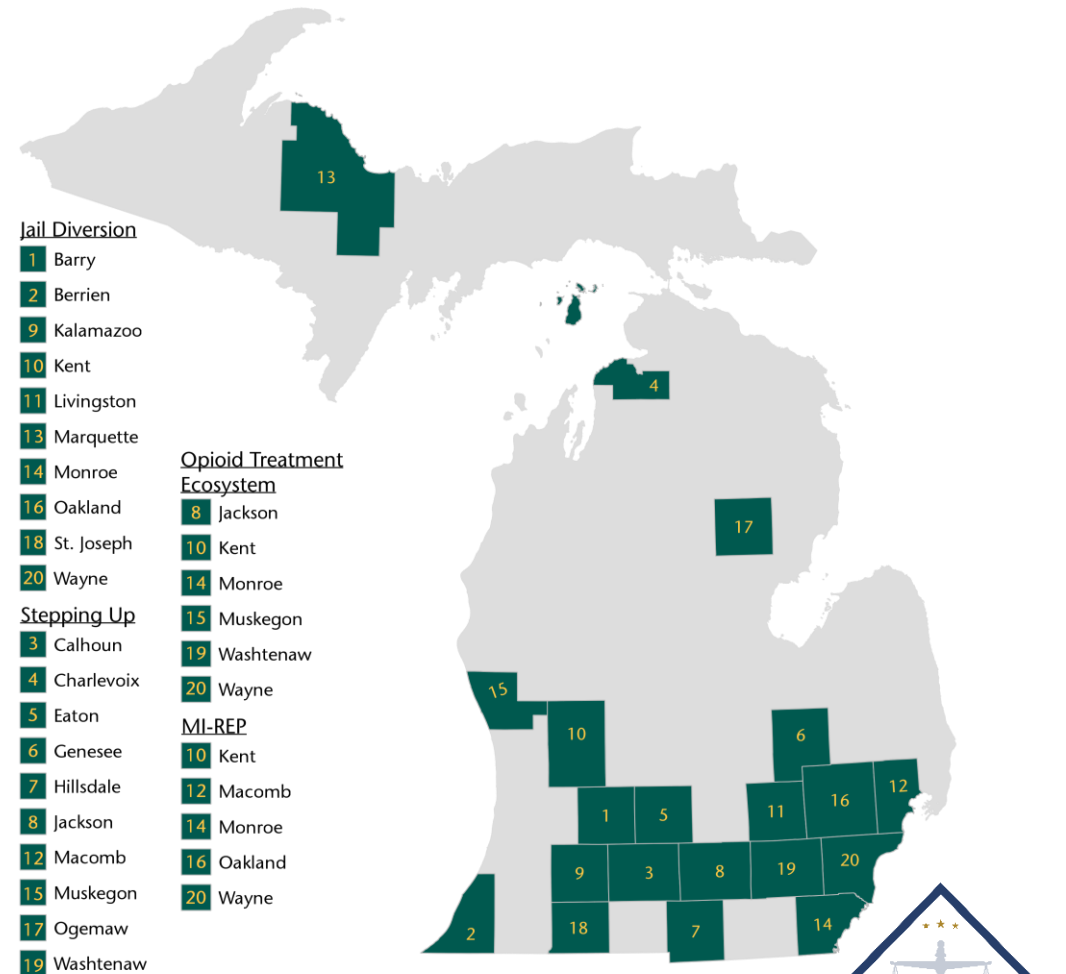
Implement best and innovative practices at every intercept of the criminal/legal continuum.

Collect and use data to drive decisions.

Create linkages to solve problems.

Develop action plans to achieve goals and sustain initiatives.

We currently serve **20 counties** across Michigan, encompassing a range of rural, urban and metropolitan communities.



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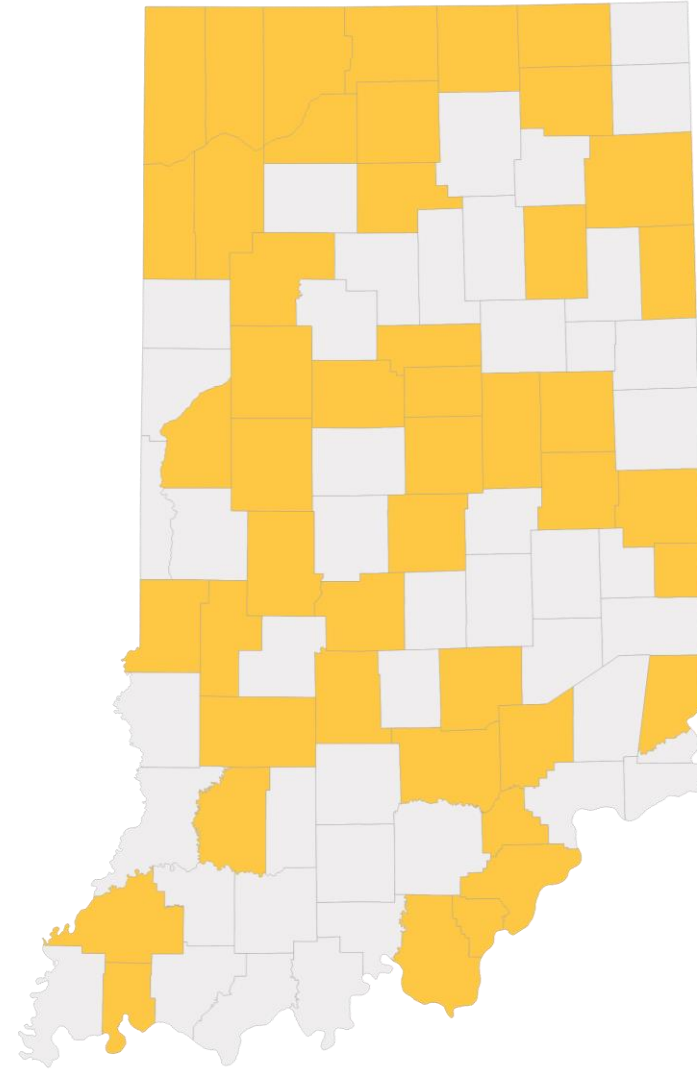
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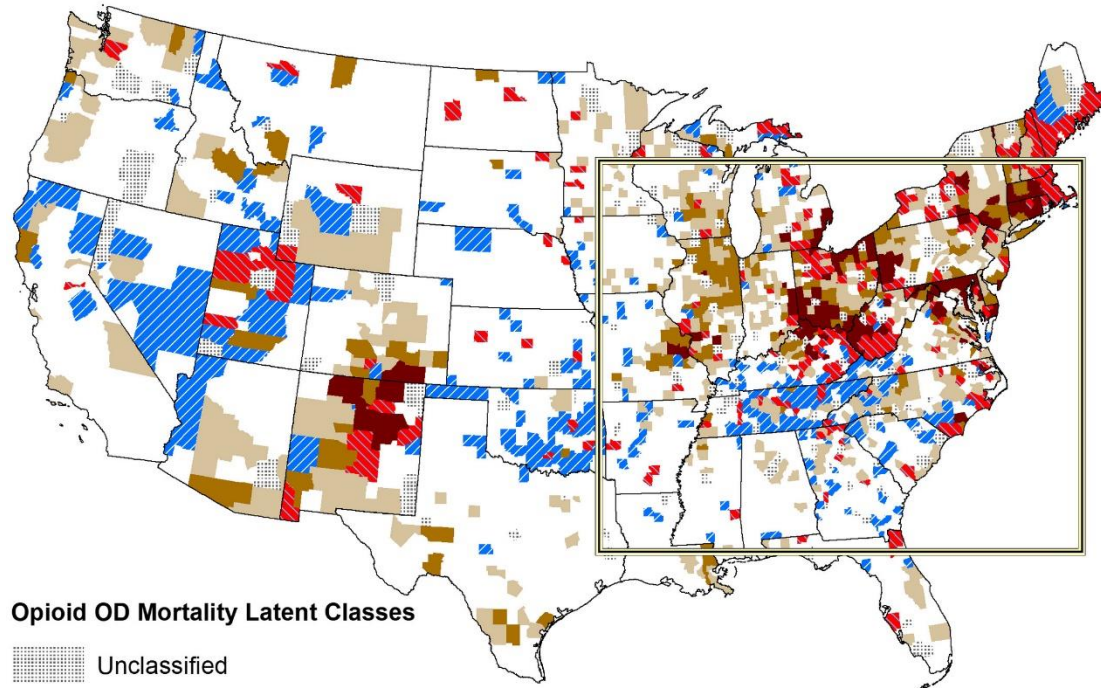
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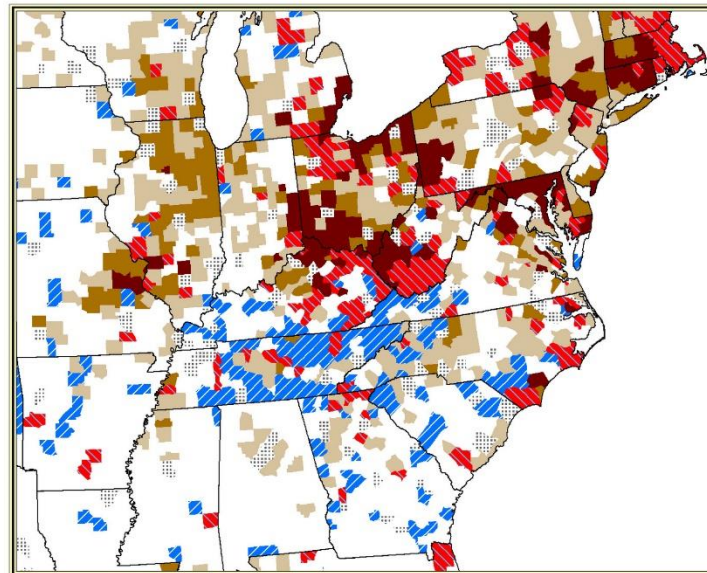
We currently analyze data from **over 40 counties** in Indiana and serve Marion County through Harm Reduction initiatives.



Regional Approach



Opioid OD Mortality Latent Classes



- Research on Regional Overdose
 - Opioid crisis no longer driven solely on prescription opioids
 - Shifts from prescription → heroin → synthetics opioids (fentanyl) and polysubstance use
 - Rural-Urban continuum shows rural areas commonly more prescription deaths and urban heroin deaths
 - Low opioid areas (Southeast) have more non-opioid overdose problems such as cocaine and methamphetamine
 - Higher opioid death areas (Northeast) have prescription and synthetics mixture-involved deaths

From: Peters, D. J., Monnat, S. M., Hochstetler, A. L., & Berg, M. T. (2019). The Opioid Hydra: Understanding Overdose Mortality Epidemics and Syndemics Across the Rural-Urban Continuum. *Rural Sociology*.



“Action Researcher”

- **Simultaneous process of taking action and doing research**
 - Supporting effective local, state, and tribal responses to the opioid epidemic in order to reduce overdose deaths, promote public safety, and support access to treatment and recovery services in the criminal justice system
 - Facilitating action research for a cross-state judicial initiative
-



Morgan Farnworth
Doctoral Student



Emily Sights
Project Coordinator



Philip Huynh
Data Analyst

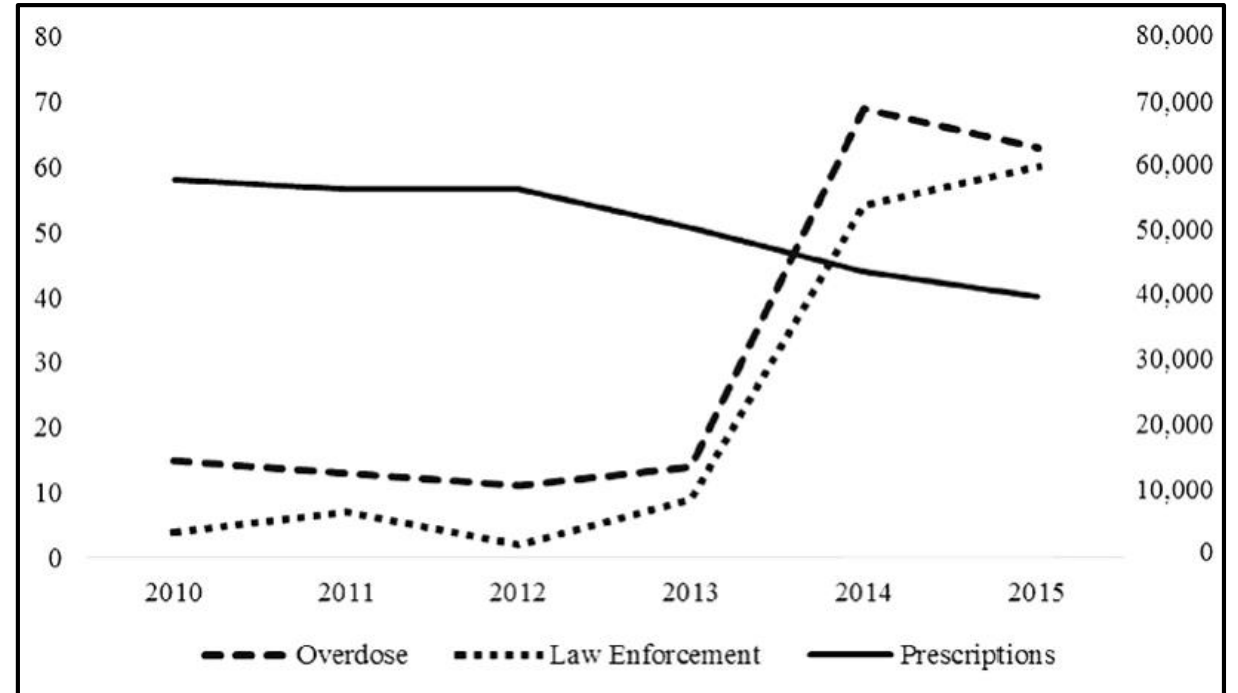
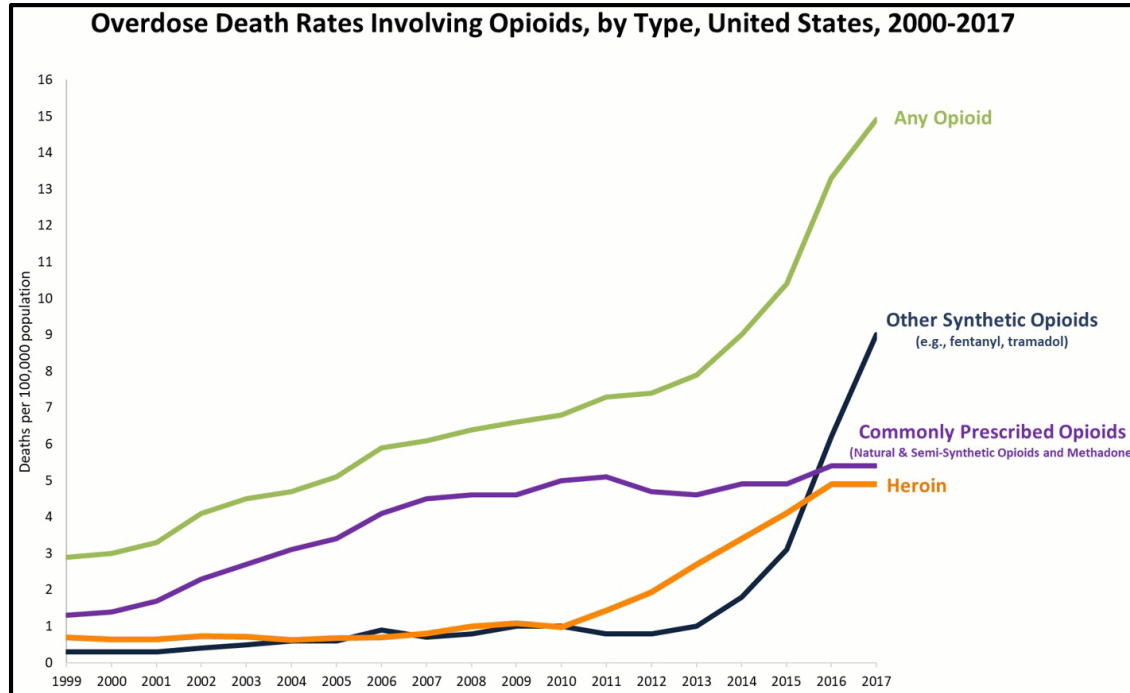


Katie Bailey
Project Manager

MANAGEMENT
PERFORMANCEHUB



Data Driven Approach: Educational



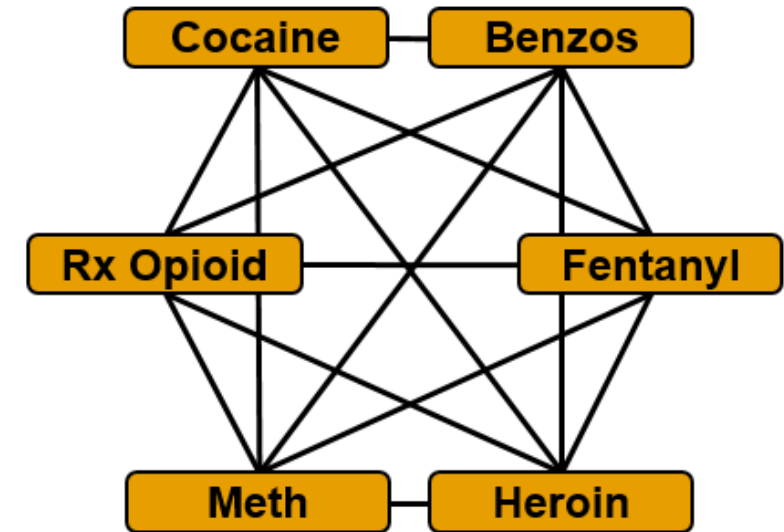
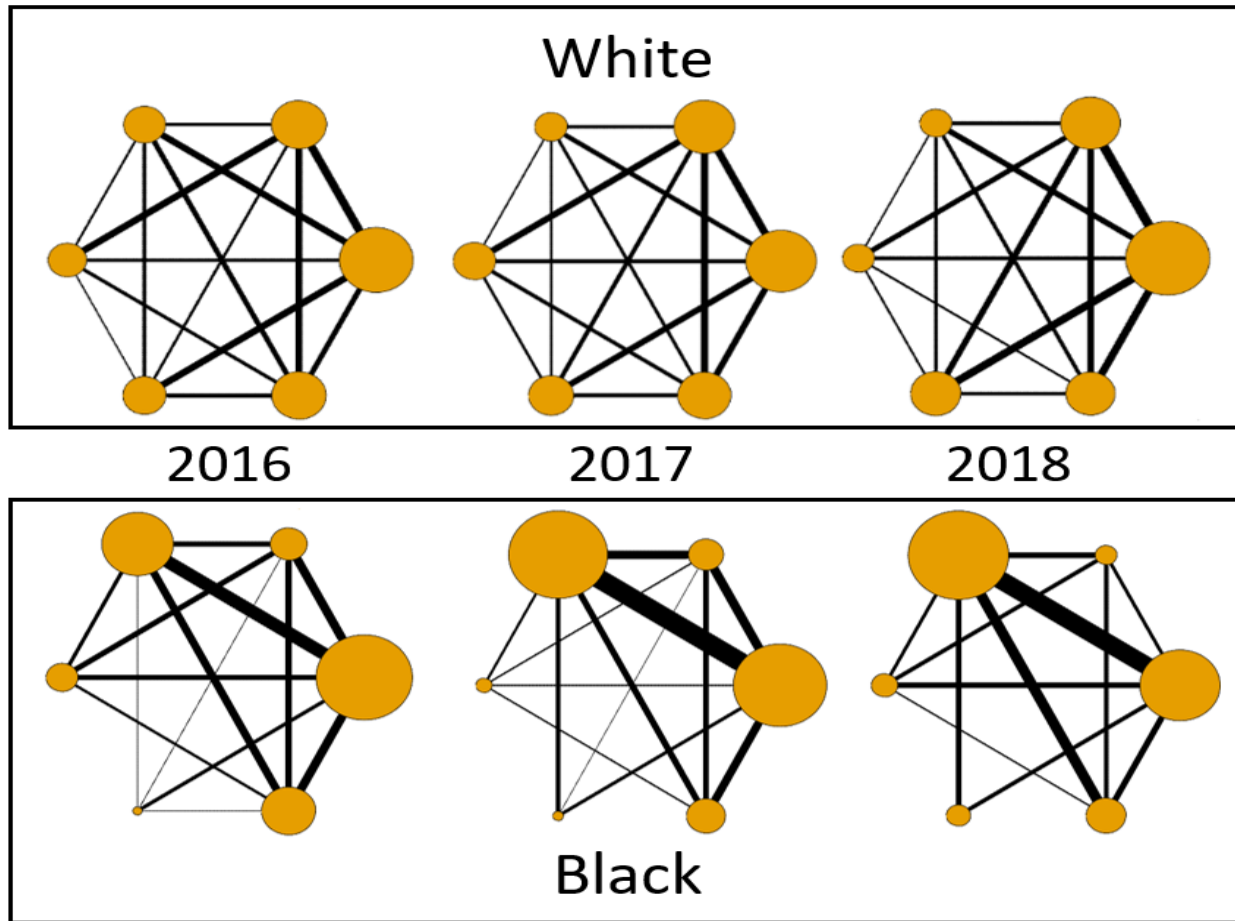
Note: Left Y-axis represents overdose and law enforcement counts and right Y-axis represents prescription counts.

From: CDC/NCHS, National Vital Statistics System, Mortality, CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2018. <https://wonder.cdc.gov/>.

From: Ray, B., Quinet, K., Dickinson, T., Watson, D. P., & Ballew, A. (2017). Examining fatal opioid overdoses in Marion County, Indiana. *Journal of urban health*, 94(2), 301-310.



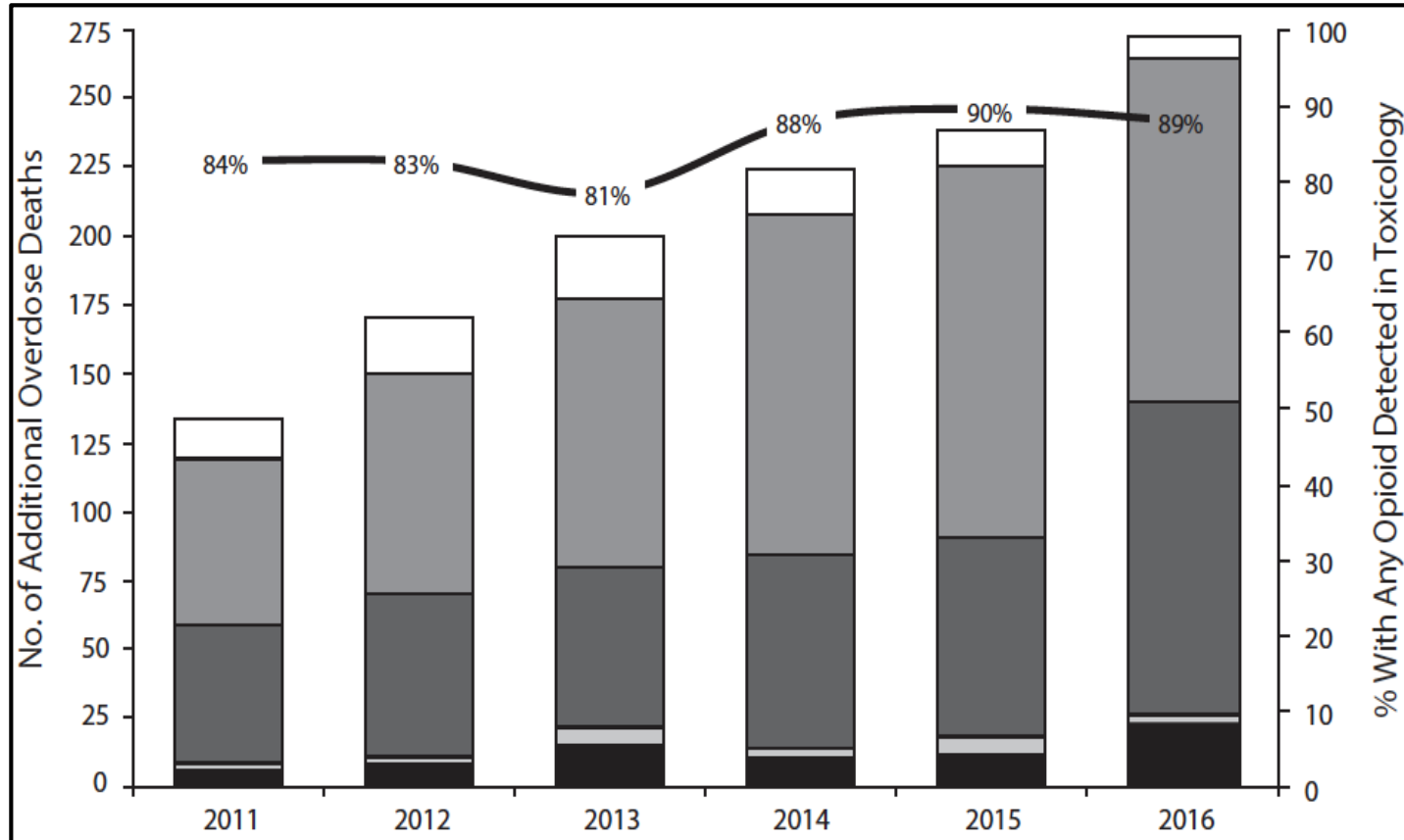
Data Driven Approach: Educational



From: Ray, B., Lowder, E., Bailey, K., Huynh, P., Benton, R., & Watson, D. (2020). Racial differences in overdose events and polydrug detection in Indianapolis, Indiana. Drug and alcohol dependence, 206, 107658.



Data Driven Approach: Educational

















- 58% were determined to be unspecified (T50.9)
- 34% were determined to be opioid-involved (T40.0-T40.4, T40.6)
- 86% of unspecified cases screened positive for an opioid in the toxicology results

From: Lowder, E. M., Ray, B. R., Huynh, P., Ballew, A., & Watson, D. P. (2018). Identifying unreported opioid deaths through toxicology data and vital records linkage: case study in Marion County, Indiana, 2011–2016. *American Journal of Public Health*, 108(12), 1682-1687.



Data Driven Approach: Educational

STATE	ALL DEATHS	CASES IN WHICH NO DRUG WAS SPECIFIED	
		TOTAL	SHARE
Louisiana	996	473	47.5% 
Pennsylvania	4,627	2,075	44.8 
Alabama	756	308	40.7 
Montana	119	46	38.7 
Indiana	1,526	547	35.8 
Delaware	282	99	35.1 
Nebraska	120	37	30.8 
Alaska	128	2	1.6 
Maine	353	5	1.4 
Massachusetts	2,227	29	1.3 
New Hampshire	481	5	1.0 
Washington, D.C.	269	2	0.7 
Connecticut	971	7	0.7 
Rhode Island	326	1	0.3 

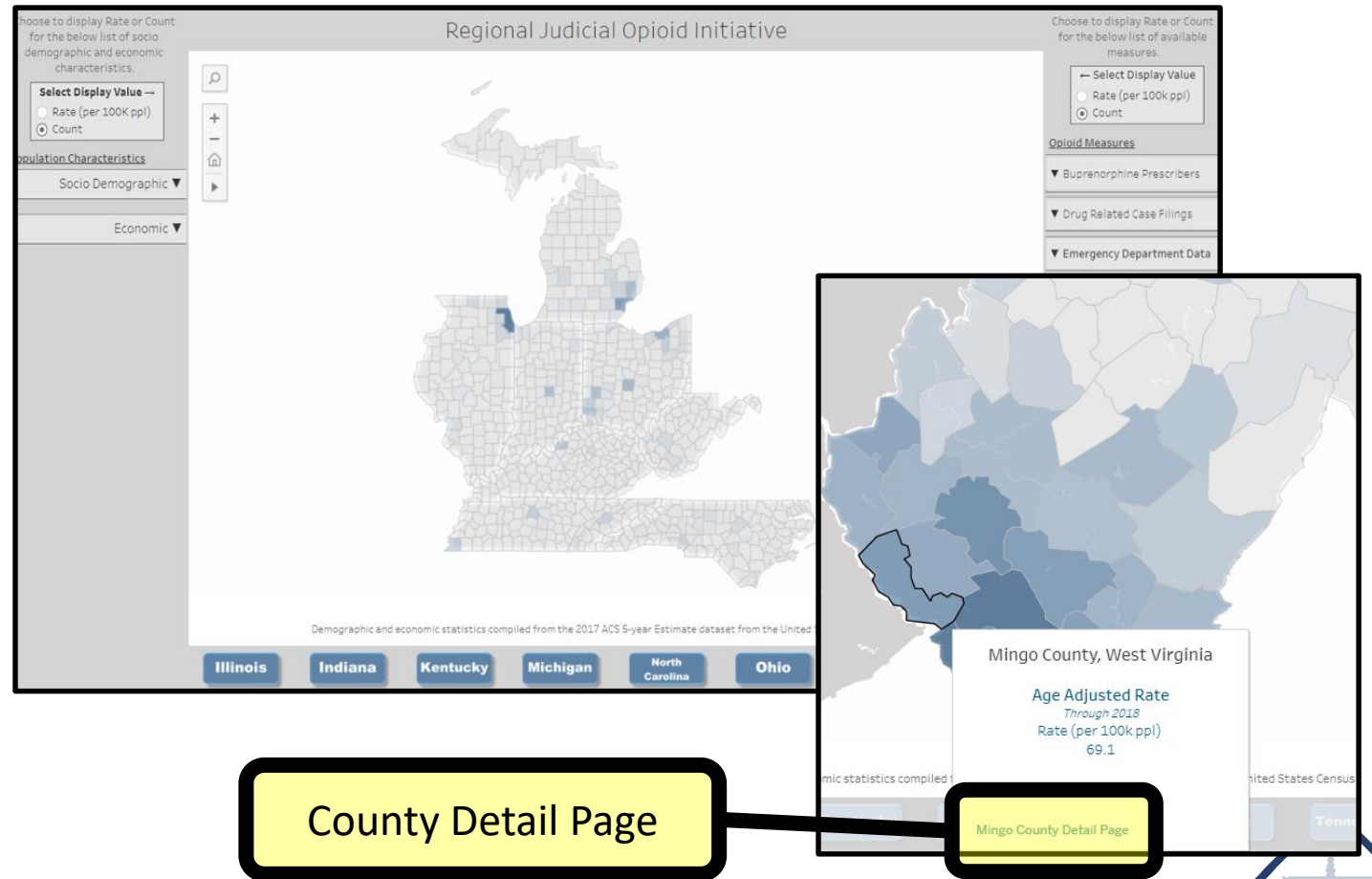
	2012	2017	Average
Indiana	52%	20%	43%
Michigan	29%	5%	17%
Kentucky	29%	10%	21%
Ohio	22%	4%	11%
North Carolina	15%	3%	8%
Tennessee	15%	6%	10%
Illinois	10%	5%	8%
West Virginia	2%	1%	2%

From: Casteel, K. (2018, January 17). There Is More Than One Opioid Crisis. Retrieved from <https://fivethirtyeight.com/features/there-is-more-than-one-opioid-crisis/>



RJOI Dashboard

- **Wish list turned teachable moment**
 - Data availability
 - Operationalization
- **Unintended Use**
 - Grant writing and state policy decision making
 - Averages 6 uses a day!



From: NCSC RJOI Dashboard at <http://apps.ncsc.org/NCSC/rjoiviz.html>



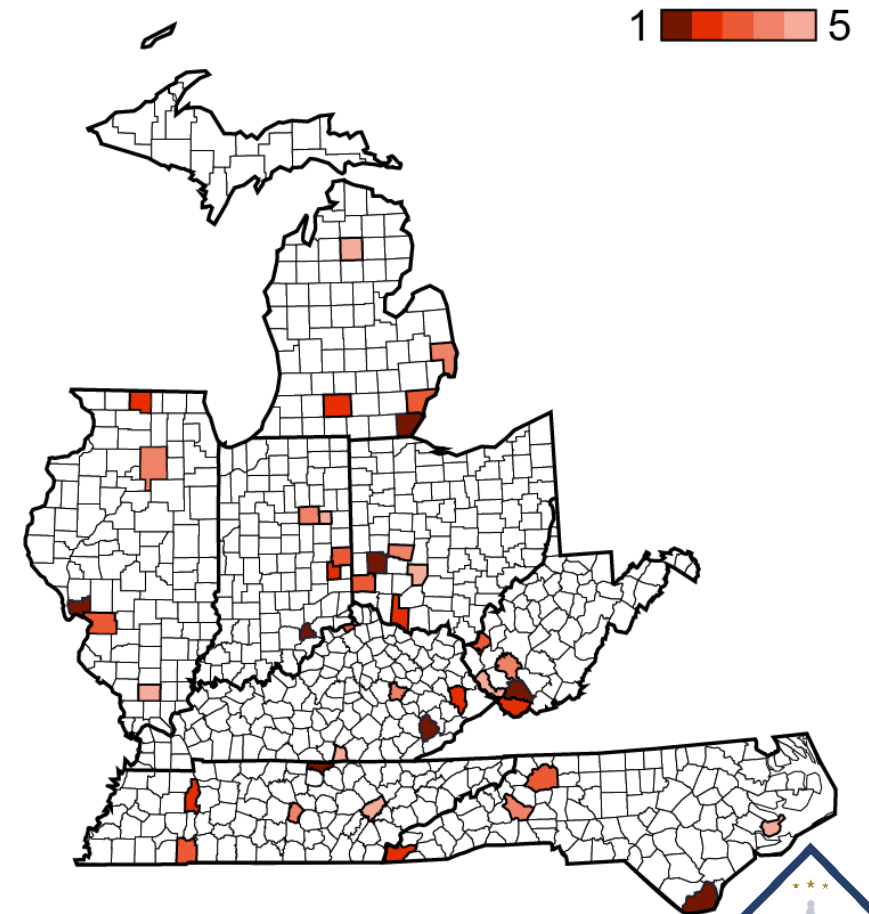
Pilot Projects

- Academic Detailing
 - CDC Evidence-Based Strategies for Preventing Opioid Overdose: What's Working in the U.S. (Carroll, Green, Noonan, 2018)
- Using data to target pilot areas

Top Five Counties in each State by Age-Adjusted Overdose Mortality Rate Per 100,000 Persons, Pooled 2011-2017*

RJOI State	One	Two	Three	Four	Five
Illinois	Jersey (29.1)	Winnebago (28.6)	Madison (24.4)	LaSalle (22.3)	Franklin (22.0)
Indiana	Scott (50.9)	Fayette (46.9)	Wayne (43.0)	Grant (33.7)	Blackford (32.2)
Kentucky	Leslie (61.4)	Floyd (57.2)	Gallatin (55.2)	Estill (54.7)	Clinton (54.4)
Michigan	Monroe (29.1)	Calhoun (26.6)	Wayne (25.8)	St. Clair (25.4)	Crawford (24.2)
North Carolina	Brunswick (31.4)	Cherokee (30.8)	Wilkes (29.4)	Burke (28.0)	Pamlico (26.8)
Ohio	Montgomery (51.3)	Brown (45.3)	Butler (44.9)	Clark (42.4)	Fayette (42.2)
Tennessee	Clay (49.5)	Benton (40.6)	Hardin (37.9)	Cannon (36.8)	Roane (36.7)
West Virginia	Wyoming (85.7)	McDowell (83.1)	Cabell (76.1)	Boone (69.5)	Mingo (67.4)

*Data from CDC WONDER, Accidental Fatal Overdoses (ICD Codes X40-X44)



New England RJOI

- Policy Analysis
- Pre-post network analysis
- Updated Dashboard



NE RJOI States	Drug-Induced Homicide Laws	MOUD in Correctional Facilities	Good Samaritan Laws	Naloxone Overdose Prevention Laws
Connecticut	No	No	Yes	Yes
Maine	No	No	Yes	Yes
Massachusetts	No	No	Yes	Yes
New Hampshire	Yes	No	Yes	Yes
Rhode Island	Yes	Yes	Yes	Yes
Vermont	Yes	No	Yes	Yes

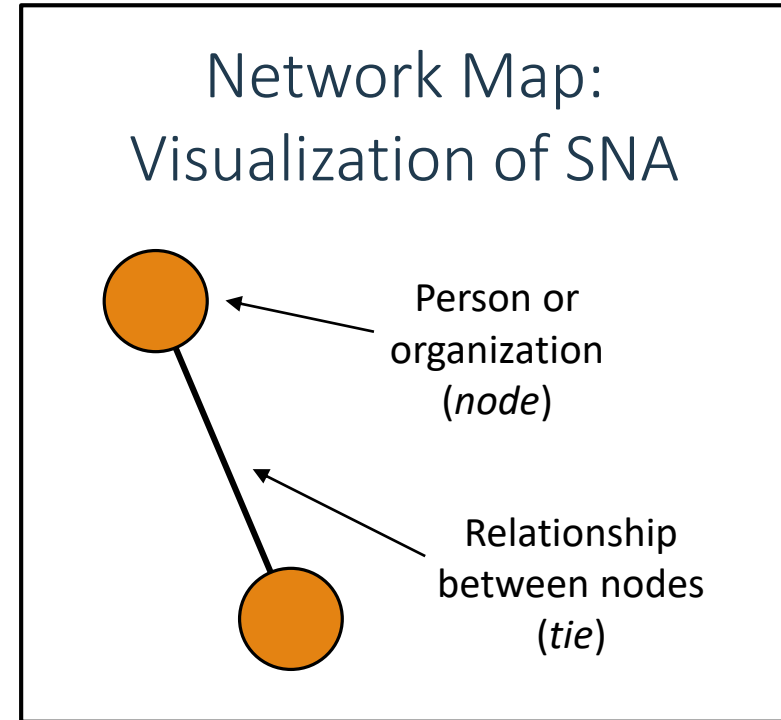


Social Network Analysis (SNA)

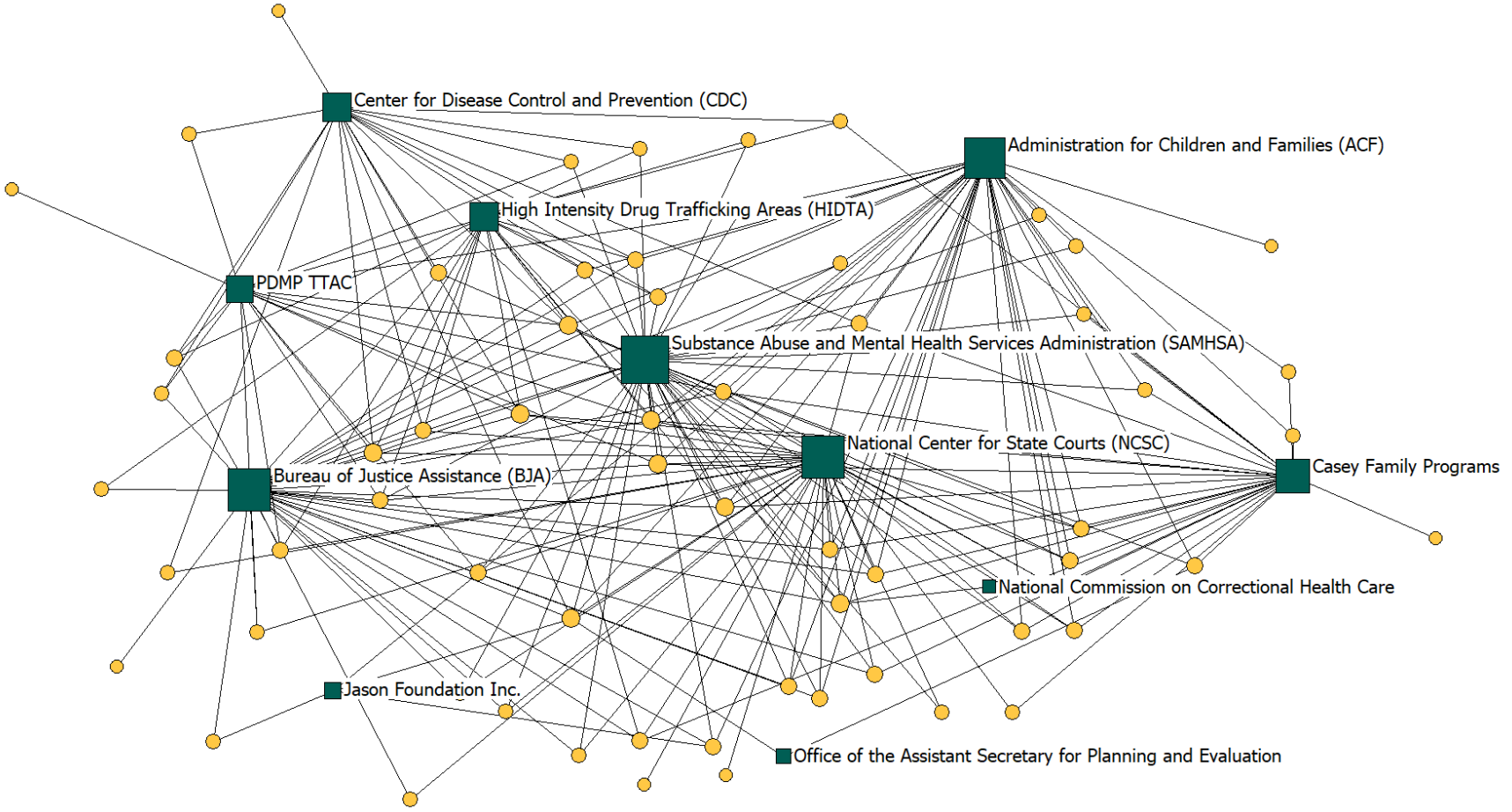
What are the patterns of collaboration that connect RJOI stakeholders?

SNA is used to understand a community by mapping relationships among members:

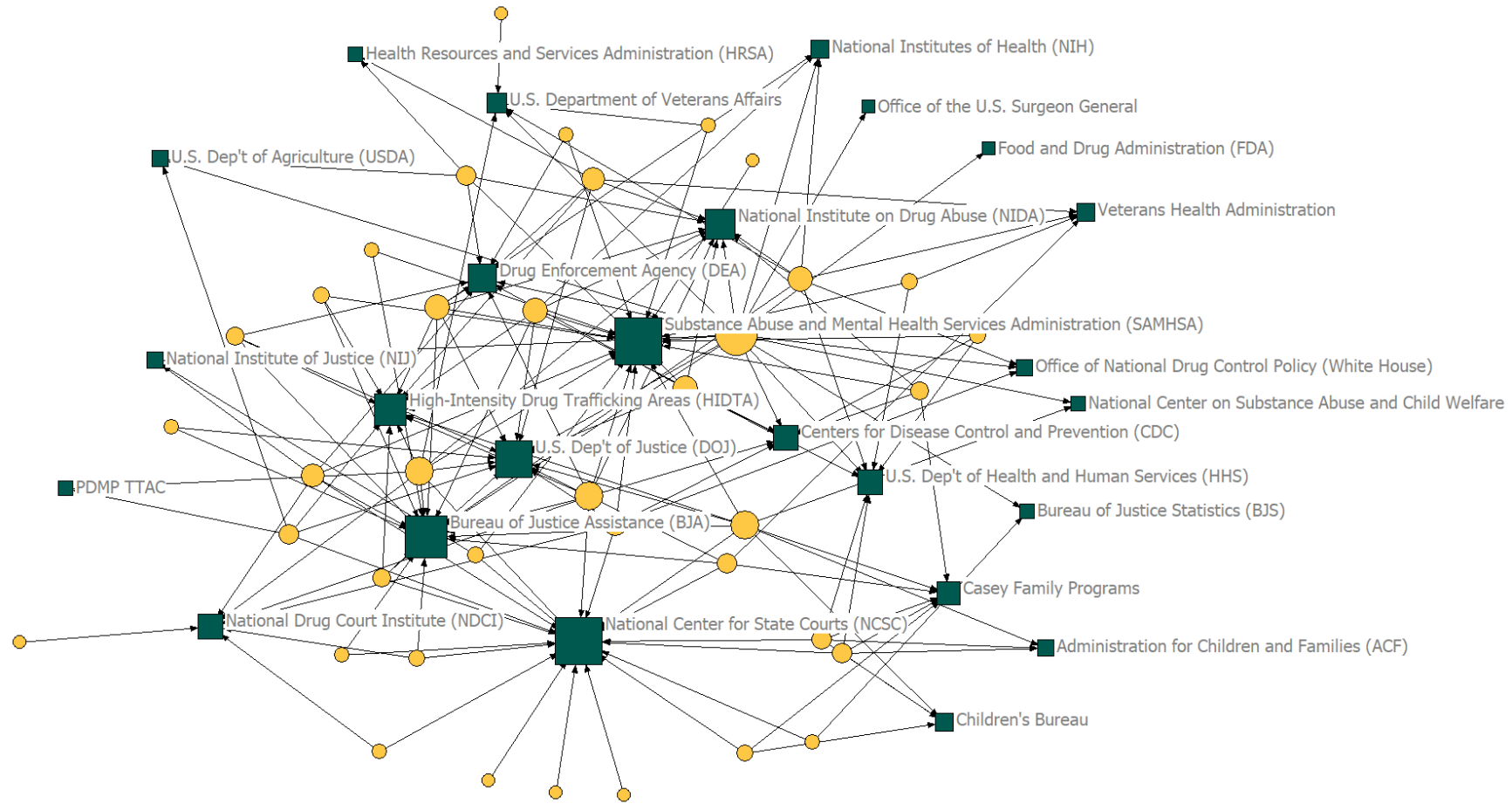
- Size of the network
- How connected/disconnected it is
- Presence of sub-groups
- Key players in the network



Appalachian/Midwest RJOI Map - Federal



New England RJOI Map - Federal



Morgan D. Farnworth, School of Public Affairs and Administration, University of Kansas



RJOI - 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





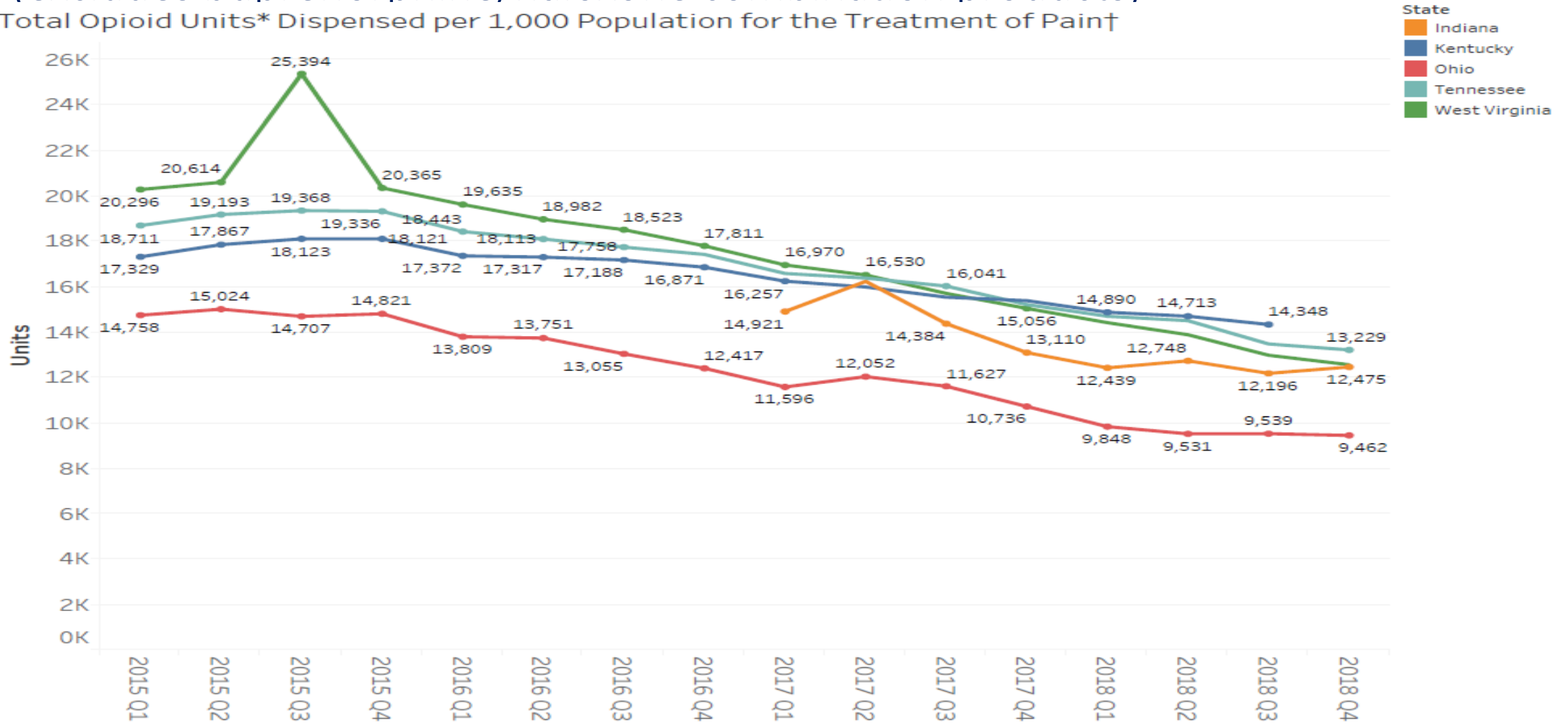
RJOI PDMP Activities

- Conducted PDMP data comparisons across states (OH, TN, IN, KY & WV). Standardized metrics include the following:
 - Total Opioid Units Dispensed per 1,000 Population for the Treatment of Pain
 - MME Dispensed per 1,000 Population for the Treatment of Pain
 - Rate of Multiple Provider Episodes for Opioids for the Treatment of Pain per 100,000 Population
 - % Opioid Naïve Patients Among Those Prescribed Long-Acting Opioids for the Treatment of Pain
 - % Patient Prescription Days with Overlapping Opioid Prescriptions for the Treatment of Pain
 - % Patient Prescription Days with Overlapping Opioid and Benzodiazepine Prescription for the Treatment of Pain



Total Opioid Units Dispensed per 1,000 Population for the Treatment of Pain (excludes buprenorphine/naloxone combination products)

Total Opioid Units* Dispensed per 1,000 Population for the Treatment of Pain†



RJOI PDMP Activities

RJOI/Medicaid Multi-State Report Data Dictionary

Total Opioid Units* Dispensed per 1,000 Population for the Treatment of Pain†

Numerator: Opioid Units for treatment of pain†

Denominator: Population of state divided by 1,000

Morphine Milligram Equivalents (MME) per 1,000 Population for the Treatment of Pain†

Numerator: Total MME dispensed in the state for the treatment of pain†

Denominator: Population of state divided by 1,000

Rate of Multiple Provider Episodes** for Opioids for the Treatment of Pain† per 100,000 Population

Numerator: Number of patients who received a prescription from 5 or more prescribers dispensed at 5 or more pharmacies within the 6-month period

Denominator: Population of state divided by 100,000

% Opioid Naïve*** Patients Among Those Prescribed Long-Acting Opioids for the Treatment of Pain†

Numerator: Number of Opioid Naïve*** Patients who received a prescription for a long-acting opioid

Denominator: Total number of patients who received a prescription for a long-acting opioid

% Patient Prescription Days with Overlapping Opioid Prescriptions for the Treatment of Pain†

Numerator: Total number of days per quarter any patient has more than one opioid prescription. A day with more than two overlapping prescriptions is still counted as one day of overlapping prescriptions.

- For the cross-border metrics, RJOI developed a standard multi-state data dictionary.
- Ensures standardized data reporting across states.



RJOI PDMP Activities

- RJOI leadership has identified the expansion of access to state PDMP records, especially between the states, as a critical element to combating the opioid crisis.
- As a necessary first step to identifying where opportunities for expansion exist, RJOI compiled a comprehensive set of baseline information on PDMP access.



RJOI PDMP Activities

Table 1b: Intrastate Requestor Access – PRESCRIBERS AND OTHER HEALTHCARE PROVIDERS

PRESCRIBERS AND OTHER HEALTHCARE PROVIDERS	RJOI States	IL	IN	KY	MI	NC	OH	TN	WV
Advanced practice registered nurse	8	Y	Y	Y	Y	Y	Y	Y	Y
Dentist	8	Y	Y	Y	Y	Y	Y	Y	Y
Optometrist with prescriptive authority	8	Y	Y	Y	Y	Y	Y	Y	Y
Physician	8	Y	Y	Y	Y	Y	Y	Y	Y
Veterinarian	8	Y	Y	Y	Y	Y	Y	Y	Y
Medical resident with prescriptive authority	7	Y	Y	Y	Y	N	Y	Y	Y
Physician assistant with prescriptive authority	7	Y	Y	N	Y	Y	Y	Y	Y
Physician delegate	7	Y	Y	Y	N	Y	Y	Y	Y
Opioid Treatment Program (OTP) physician	4	Y	Y	Y	N	N	Y	N	N
Medical resident with no independent prescriptive authority	3	Y	N	Y	N	N	Y	N	N
Psychologist with prescriptive authority	3	Y	N	Y	N	Y	N	N	N
Chief medical officer	3	N	N	Y	N	Y	N	N	Y
Naturopathic physician with prescriptive authority	3	Y	N	Y	N	Y	N	N	N
Drug treatment provider	2	Y	Y	N	N	N	N	N	N
Hospital administrator	2	N	N	N	N	Y	N	N	Y
Medical intern with prescriptive authority	2	N	N	Y	N	N	Y	N	N
Patient	2	Y	N	N	N	N	N	Y	N
Medical intern with no independent prescriptive authority	1	N	N	N	N	N	Y	N	N
Total YES		14	10	13	7	11	12	9	10



RJOI PDMP Activities

Table 1c: Intrastate Requestor Access – JUSTICE, LAW ENFORCEMENT, AND PUBLIC WELFARE

JUSTICE, LAW ENFORCEMENT, AND PUBLIC WELFARE	RJOI States	IL	IN	KY	MI	NC	OH	TN	WV
Law enforcement (federal)	8	Y	Y	Y	Y	Y	Y	Y	Y
Law enforcement (local)	8	Y	Y	Y	Y	Y	Y	Y	Y
Law enforcement (state)	8	Y	Y	Y	Y	Y	Y	Y	Y
Medical examiner/coroner	8	Y	Y	Y	Y	Y	Y	Y	Y
Drug court judge (adult criminal court)	5	Y	N	Y	Y	N	Y	Y	N
Drug court judge (juvenile delinquency court)	5	Y	N	Y	Y	N	Y	Y	N
Probation officer (adult offenders)	5	Y	Y	Y	Y	N	Y	N	N
Probation officer (juvenile offenders)	5	Y	Y	Y	Y	N	Y	N	N
Prosecutor (federal)	5	Y	Y	Y	Y	N	Y	N	N
Prosecutor (local)	5	Y	Y	Y	Y	N	Y	N	N
Prosecutor (state)	5	Y	Y	Y	Y	N	Y	N	N
Correctional intake/supervision	4	Y	Y	N	Y	N	Y	N	N
Drug court judge (family dependency treatment court)	4	Y	N	Y	Y	N	N	Y	N
Child protective services	1	Y	N	N	N	N	N	N	N
Judge (non-drug court)	1	Y	N	N	N	N	N	N	N
Juvenile court intake	1	N	Y	N	N	N	N	N	N
Adult protective services	0	N	N	N	N	N	N	N	N
Pretrial services	0	N	N	N	N	N	N	N	N
Total YES		15	11	12	13	4	12	7	4



Utilizing OARRS Data

OARRS has three primary uses:

- Patient Safety
- Enforcement
- Regulation



Patient Safety

NarxScore

- Using data reported to OARRS, patients are assigned an overdose risk score and, if applicable, additional risk indicators. The goal is to help healthcare providers identify at-risk patients.

<p>OVERDOSE RISK SCORE</p> <p>650 (Range 0-999)</p> <p>Explain this score</p>	<p>ADDITIONAL RISK INDICATORS (3)</p> <ul style="list-style-type: none">! ≥ 4 opioid or sedative dispensing pharmacies in any 90 day period in the last 2 years! ≥ 5 opioid or sedative providers in any year in the last 2 years! Patient has Benzodiazepine/ Narcotic overlap <p>Explain these indicators</p>
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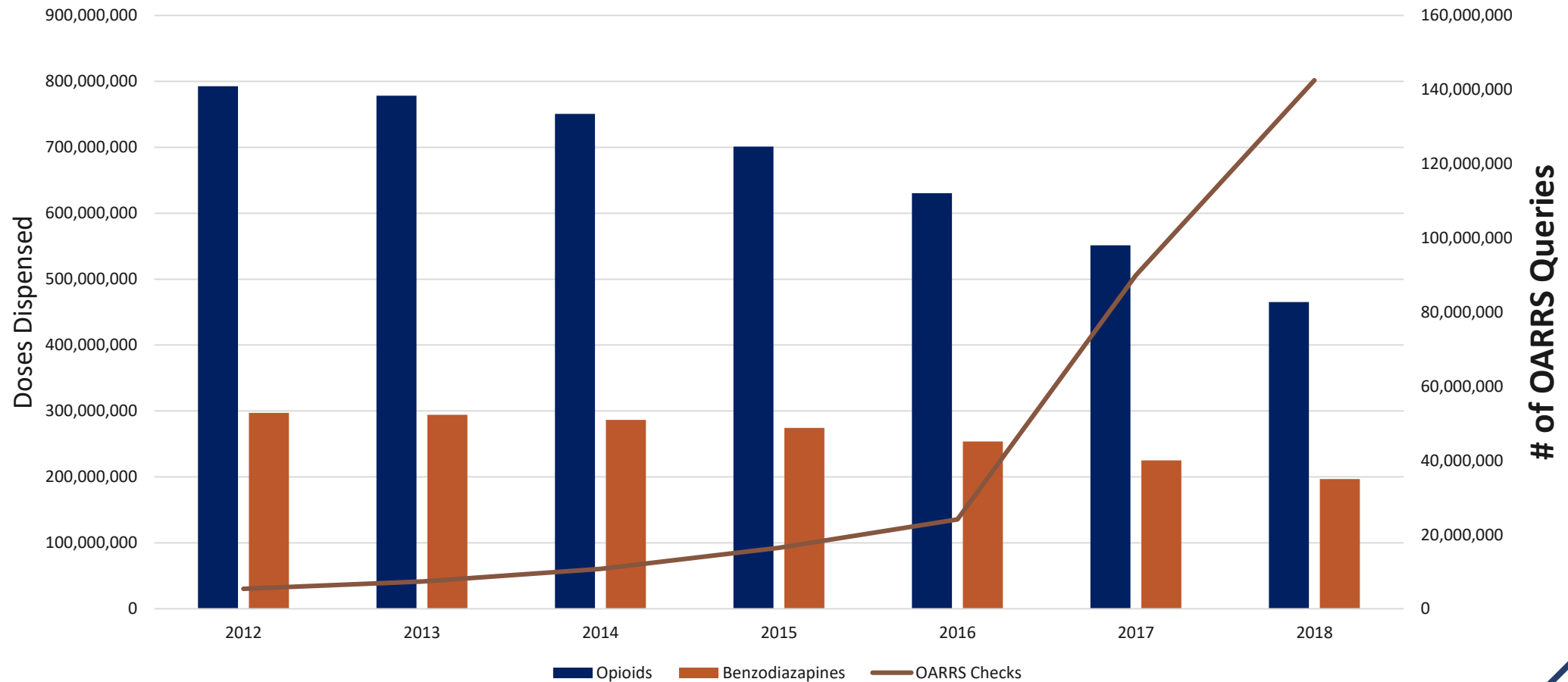
Patient Safety

Prescription History

- Using OARRS, prescribers have a comprehensive view of a patient's prescription history and can offer treatment options or modify care accordingly.
- In recent years, OARRS has expanded reportable data to provide clinicians with additional information, including collection of the following dispensing data:
 - Gabapentin (December 2016), medical marijuana (January 2019), and naltrexone (March 2019).



Prescribing of Opioids and Benzodiazepines vs. OARRS Queries



Patient Safety

Doctor Shoppers

- OARRS data is used to alert healthcare providers of individuals potentially engaged in doctor shopping behavior.

Early Intervention

- Using COAP funds, the Board hired agents to operate a pre-criminal intervention program (PCIP) for patients exhibiting possible doctor shopping behavior.
- Early data from the PCIP finds that even if offers of assistance and treatment are rebuffed, the intervention often results in a decrease in prescription seeking behavior.



Enforcement

- Using OARRS data, Board of Pharmacy analysts have been able to identify prescribers who may be engaged in criminal activity.
- Simply reporting out the top X prescribers in each category is insufficient (e.g. the top ten prescribers of drug “X” will always return results if there are ten or more prescribers).



Identifying Dangerous Prescribers

	Category #1		Category #2		Category #3		Category #4		Category #5	Category #6		Category #7	
	Rank	Percentile	Rank	Percentile	Rank	Percentile	Rank	Percentile	Yes/No	Rank	Percentile	Rank	Percentile
Prescriber 1	806	97.83	1	100.00	143	99.61	1	100.00	Yes	2	99.99	2	99.99
Prescriber 2	240	99.35	215	99.42	2785	92.49	3	99.99	No	53	99.86	100	99.73
Prescriber 3	3424	90.77	10	99.97	35	99.91	2	99.99	Yes	1	100.00	1	100.00
Prescriber 4	484	98.69	358	99.03	1692	95.44	28	99.92	No	102	99.72	176	99.53
Prescriber 5	540	98.54	56	99.85	909	97.55	4	99.99	No	23	99.94	56	99.85



Enforcement

- There may be a perfectly good explanation as to why a prescriber may end up at the top of one or even a few of the categories.
- It is much harder to envision a scenario where someone is at the top of the list in most or all the categories.
- The Board settled on individuals in the top 5% for at least five of those seven categories.
- Pay close attention to Prescriber 1.



Identifying Dangerous Prescribers

	Category #1		Category #2		Category #3		Category #4		Category #5	Category #6		Category #7	
	Rank	Percentile	Rank	Percentile	Rank	Percentile	Rank	Percentile	Yes/No	Rank	Percentile	Rank	Percentile
Prescriber 1	806	97.83	1	100.00	143	99.61	1	100.00	Yes	2	99.99	2	99.99
Prescriber 2	240	99.35	215	99.42	2785	92.49	3	99.99	No	53	99.86	100	99.73
Prescriber 3	3424	90.77	10	99.97	35	99.91	2	99.99	Yes	1	100.00	1	100.00
Prescriber 4	484	98.69	358	99.03	1692	95.44	28	99.92	No	102	99.72	176	99.53
Prescriber 5	540	98.54	56	99.85	909	97.55	4	99.99	No	23	99.94	56	99.85



Prescriber 1

- Had been investigated by various state and federal agencies in the past but were unable to find anything conclusive.
- With OARRS data showing the individual was an outlier in most of the categories, COAP funded Board of Pharmacy agents specifically assigned to OARRS began an investigation.



Prescriber 1

- After an extensive multi-agency investigation, the prescriber was charged with 88 counts of unlawful distribution of a controlled substance, one count of unlawful distribution of a controlled substance with death resulting, eight counts of health care fraud, and 17 counts of violating the anti-kickback law.
- The prescriber entered into a plea agreement and recommended sentencing is 78 to 144 months in prison (formal sentencing TBD).



Enforcement vs Patient Care

- OARRS is first and foremost a patient-care tool.
- Strict access restrictions to prevent “fishing” by law enforcement and regulatory agencies to safeguard patient privacy.
- Use of OARRS data allows for potentially dangerous healthcare providers to be identified and investigated by law enforcement and/or regulatory agencies.
- Enforcement and public health are not mutually exclusive.



Regulatory

Driving Regulatory Policy Decisions

- Through collaborative efforts with other state agencies, OARRS data is used to develop new policies and initiatives. For example, data from the system was used to develop common-sense prescribing limits as part Ohio's rules governing the use of opioids for the treatment of acute pain.

Integration with Ohio's Occupational Licensing Platform (Elicense)

- In Ohio, all prescribing boards use the same licensing platform.
- Allowing these systems to communicate means that licenses that are suspended or revoked are further restricted from accessing OARRS.



Improving OARRS Use Through Integration

- OARRS is a vital tool in Ohio's efforts to combat prescription drug misuse and abuse.
- Use of the system continues to increase at record rates thanks to the Board's efforts to promote the integration of OARRS into electronic health records and pharmacy dispensing systems.
- As a result of these efforts, more than 48,000 Ohio prescribers and pharmacists can access important patient data with the click of a button.



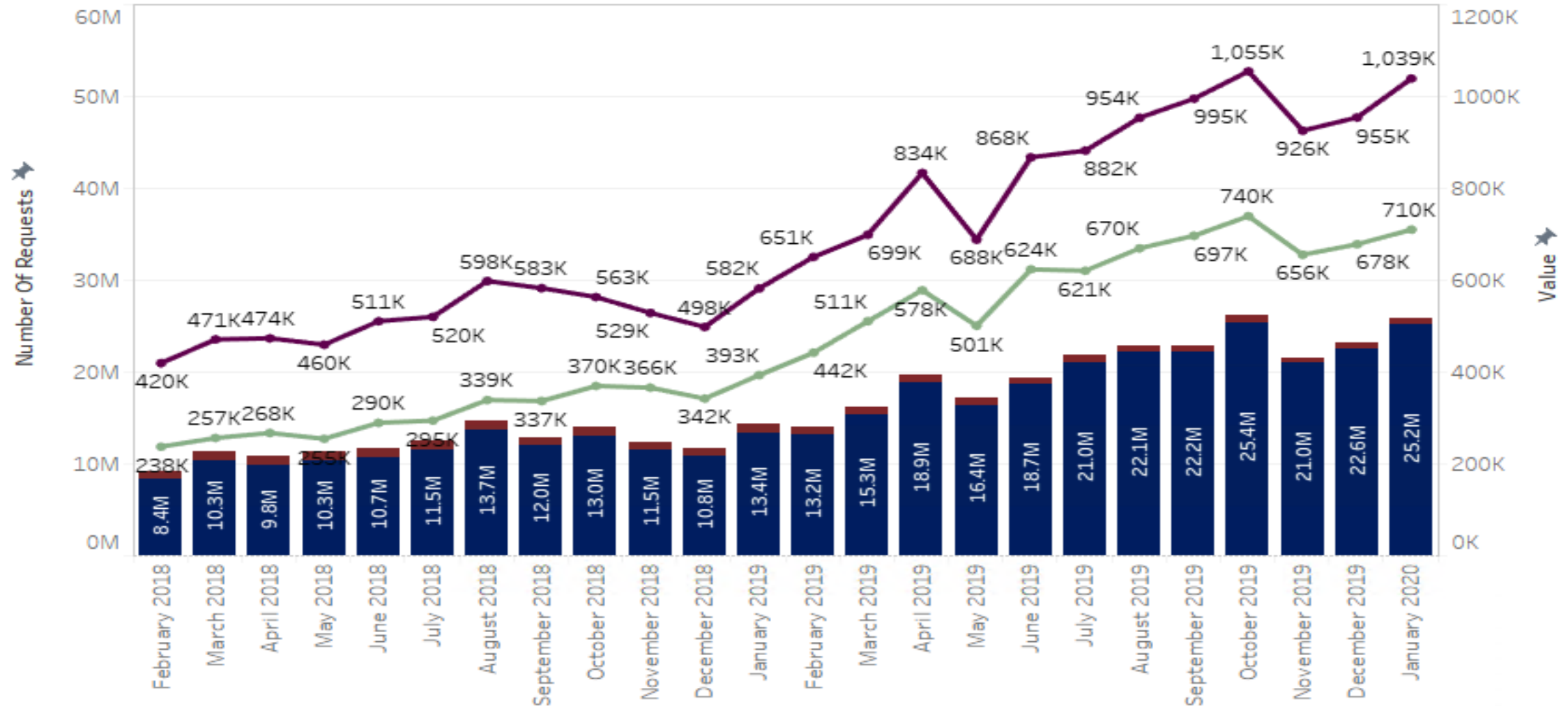
Improving OARRS Use Through Integration

- When the OARRS statewide integration initiative was announced in October of 2015, the average number of OARRS requests averaged around 65,000 per weekday.
- The system is now processing an average of over 1 million requests per weekday and that number will continue to grow.
- Integration is sustained through HITECH funding provided by CMS.

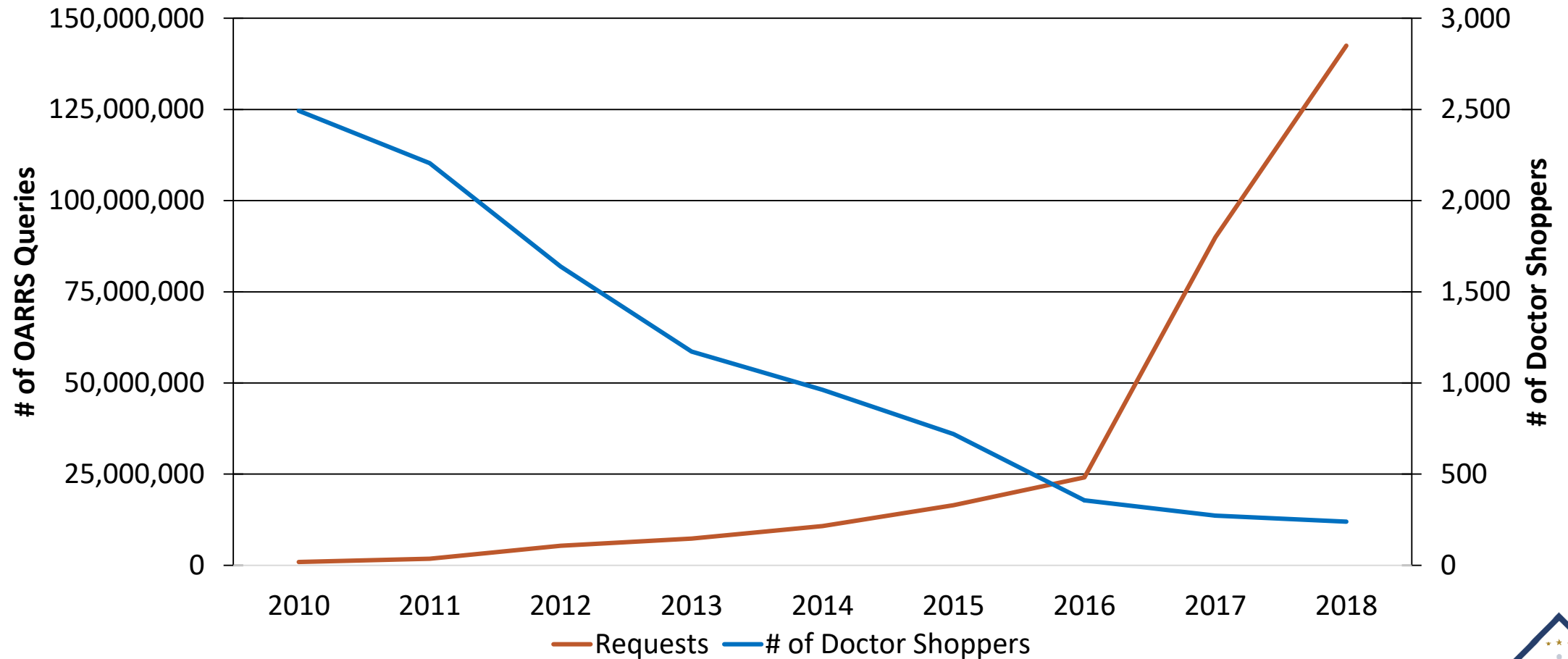


Improving OARRS Use Through Integration

Requests by Method/Requests per Weekday



Doctor Shoppers* vs OARRS Queries, 2010-2018



*In this chart, a doctor shopper is defined as an individual receiving a prescription for a controlled substance from five or more prescribers in one calendar month.



Future Updates

Non-fatal Overdose Reporting

- The Board of Pharmacy is working with the Ohio Department of Health to collect information on non-fatal overdoses and have that information reported into OARRS.

Drug Court Flags

- In partnership with the Supreme Court of Ohio, the Board is developing a system to report active drug court participants into OARRS.



Future Updates

MAT Treatment Locator

- Using COAP Grant Funds, the Board is developing a medication-assisted treatment (MAT) Locator in OARRS which will return a listing of all MAT treatment providers based on proximity to a patient's zip code.
- The system will use OARRS data to find active providers of buprenorphine and naltrexone.



Questions

Steve Schierholt

steven.schierholt@pharmacy.ohio.gov

Kristina Bryant

kbryant@ncsc.org

Dr. Brad Ray

bradray@wayne.edu

