



ILPMP Epidemiology Efforts

Analysis to Drive Educational Initiatives

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Sarah Pointer, PharmD

Disclosure & Funding Sources

Disclosure

The presenters have nothing to disclose.

Funding sources

DOJ (2019-PM-BX-0016 & 2020-PM-BX-0016)

CDC OD2A (NU17CE9244980)

Background

**Drug Overdose
Rates**

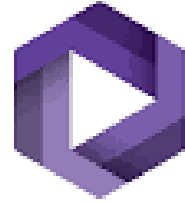


**Prescribing
Patterns**



Targeted Education

Data Analysis Partnerships



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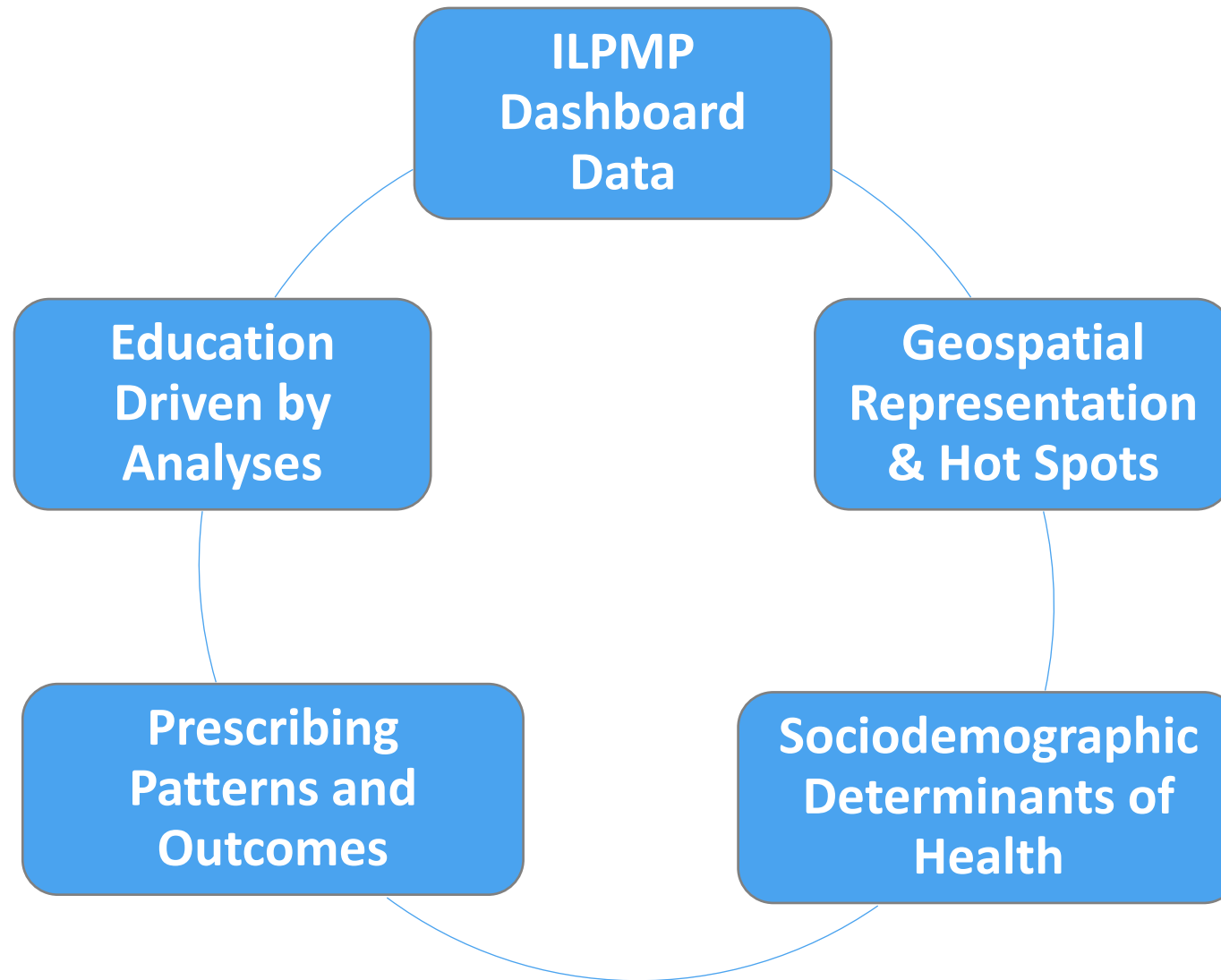


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SOUTHERN ILLINOIS UNIVERSITY
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ILPMP Epidemiology Focus





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ILPMP Dashboard Prescribing Trends

Analysis of Buprenorphine Prescribing

Geospatial Hot Spots

Opioid Data Correlation

Combined Data Set Analysis

**Data Dashboard
Prescribing
Trendlines**

Opioids

Benzodiazepines

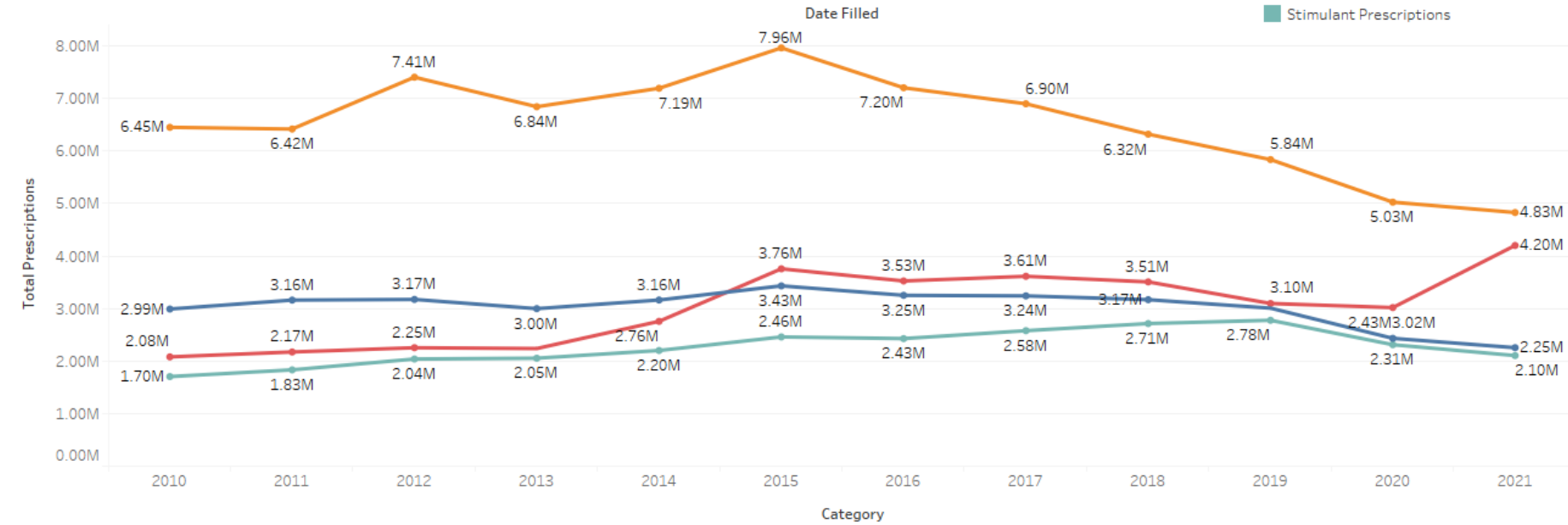
Stimulants

Other Substances

Prescribing Trends

Total prescriptions dispensed at retail pharmacies in the State of Illinois from 2010 to 2019.

To highlight a category, click on the color legend on the right or click the name in the table below



Year of Date Filled	Opioid Prescriptions	Benzodiazapine Prescriptions	Stimulant Prescriptions	Other Substance Prescriptions	Total Prescriptions
2010	6,450,814	2,991,056	1,704,355	2,079,522	13,225,747
2011	6,418,802	3,160,772	1,832,522	2,172,659	13,584,755
2012	7,405,829	3,173,627	2,038,882	2,253,889	14,872,227
2013	6,843,818	2,998,520	2,054,257	2,238,329	14,134,924
2014	7,194,427	3,162,532	2,201,198	2,756,316	15,314,473
2015	7,963,835	3,432,051	2,459,472	3,756,924	17,612,282
2016	7,204,941	3,251,885	2,427,951	3,525,206	16,409,983
2017	6,899,704	3,241,709	2,578,436	3,614,014	16,333,863
2018	6,320,416	3,168,620	2,714,194	3,507,453	15,710,683
2019	5,837,024	3,007,811	2,776,768	3,096,707	14,718,310
2020	5,026,180	2,433,054	2,311,697	3,018,494	14,272,957
2021	4,828,401	2,254,620	2,104,538	4,201,121	15,975,998

Geospatial Representation

Choropleth color coding

Hot spot analyses

Bivariate correlation

Geographic Representation Buprenorphine Patients

Percent Change in Buprenorphine Patients per Capita from 2019 to 2020

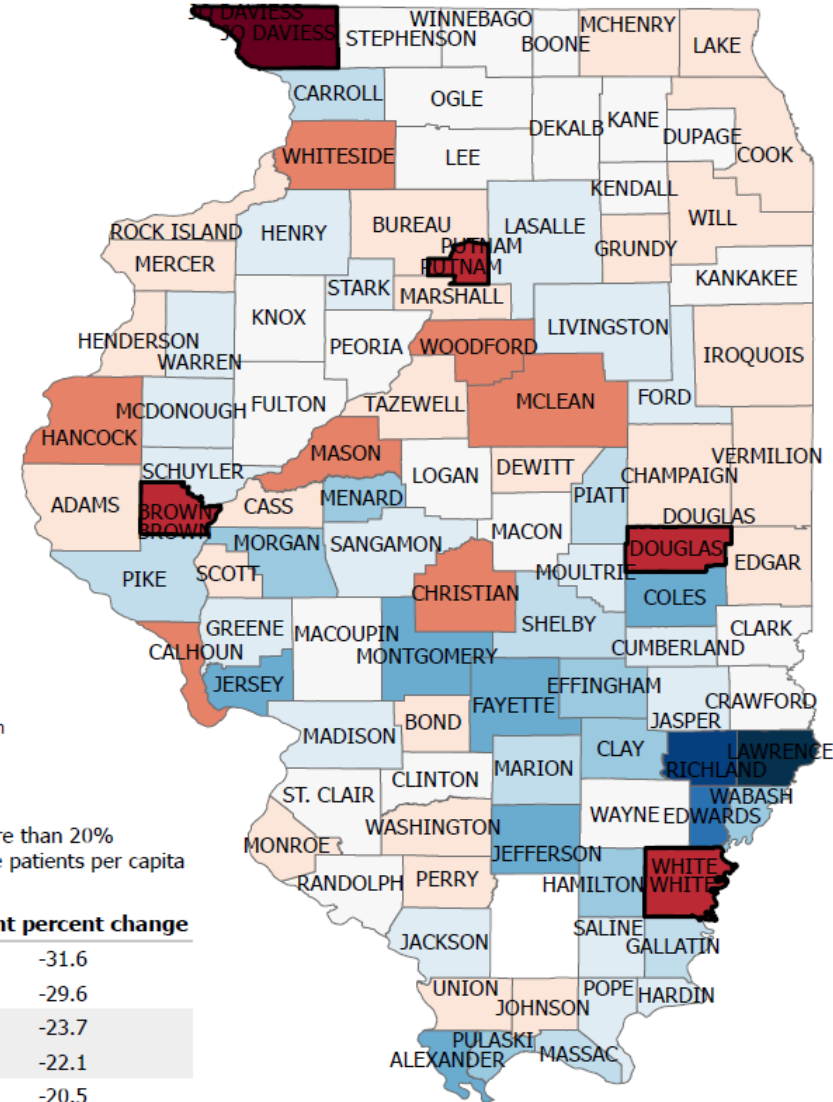
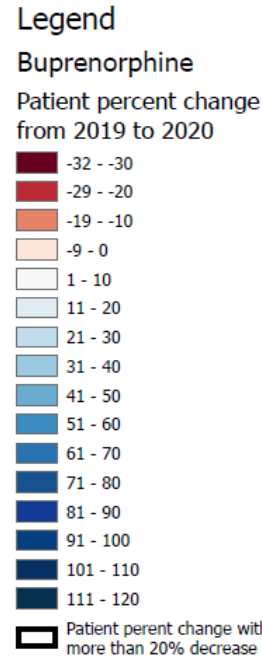


Table 1. Counties with more than 20% decrease in Buprenorphine patients per capita from 2019 to 2020

County	Patient percent change
Jo Daviess County	-31.6
Putnam County	-29.6
Douglas County	-23.7
Brown County	-22.1
White County	-20.5

Geographic Representation

Buprenorphine Providers

Percent Change in Buprenorphine Providers per Capita from 2019 to 2020

Legend

Buprenorphine
Provider percent change
from 2019 to 2020

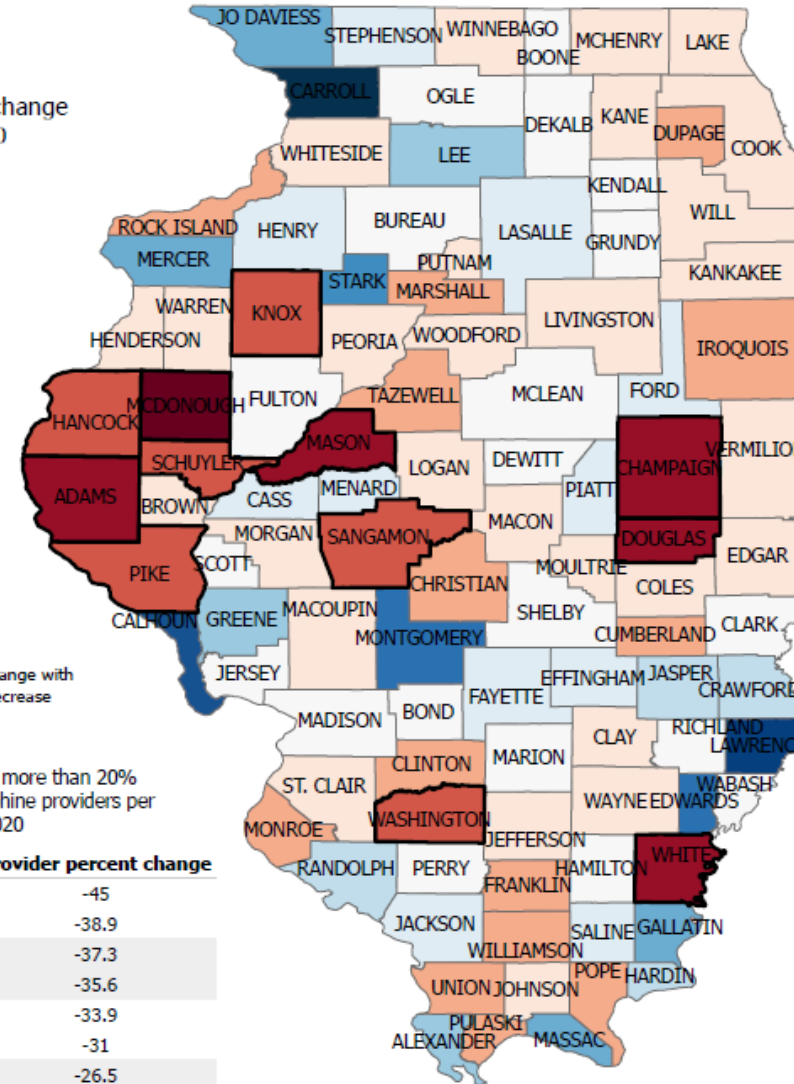
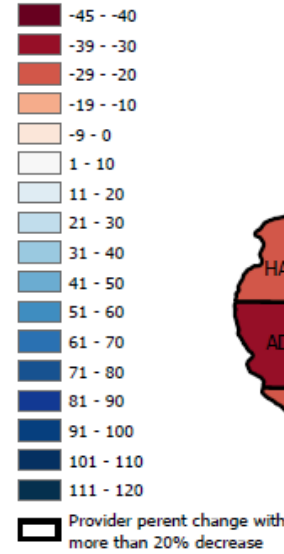


Table 1. Counties with more than 20% decrease in Buprenorphine providers per capita from 2019 to 2020

County	Provider percent change
McDonough County	-45
Adams County	-38.9
Champaign County	-37.3
White County	-35.6
Douglas County	-33.9
Mason County	-31
Washington County	-26.5
Knox County	-23.9
Hancock County	-22.3
Schuyler County	-22.2
Pike County	-22.2
Sangamon County	-21.7

Patients vs Providers

Legend

Illinois Buprenorphine per Capita

Counties with more than 20% increase (Table 1)

Providers
Patients

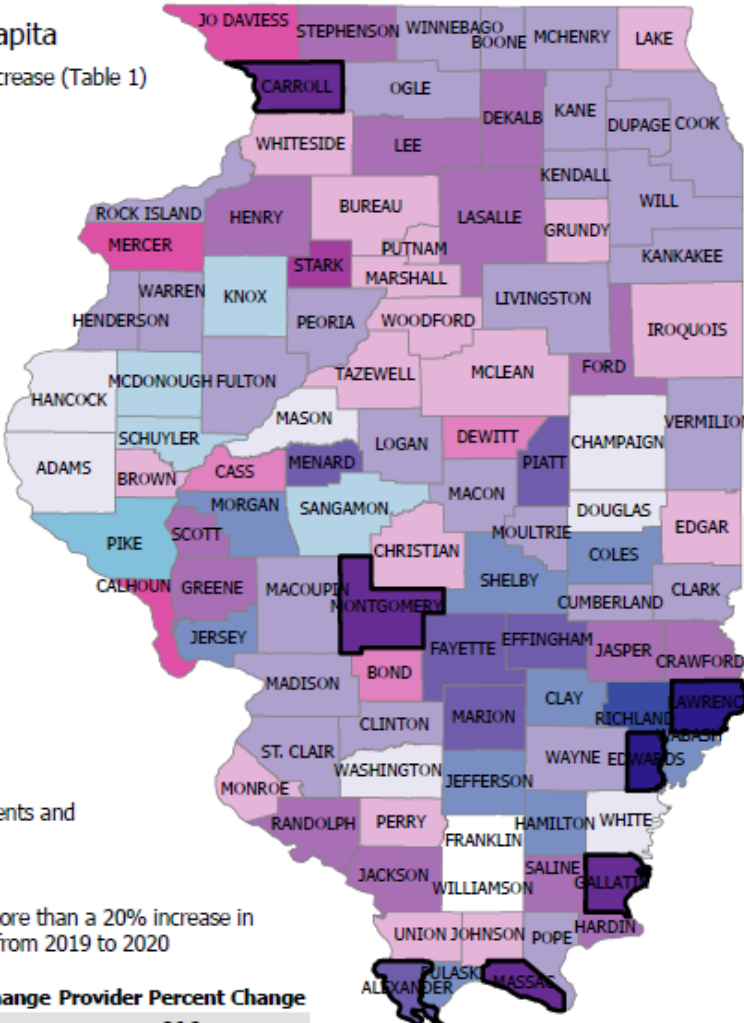
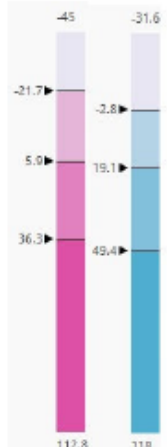
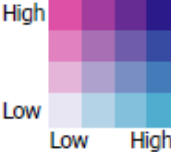


Figure 1. Natural break cutoffs for patients and providers per capita

Table 1. Counties with more showed more than a 20% increase in Buprenorphine patients and providers from 2019 to 2020

County	Patient Percent Change	Provider Percent Change
Alexander County	43	36.3
Carroll County	29.2	112.8
Edwards County	68.9	61.6
Gallatin County	25	47.6
Lawrence County	118	99.9
Massac County	22.2	48.8
Montgomery County	49.4	69

Bivariate Correlation

Buprenorphine Patient vs Providers

Geographic Representation

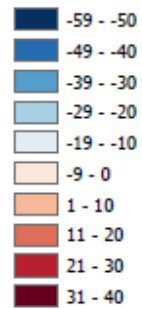
High dose opioids
>90 MME

Percent Change in >90 MME's per Capita from 2019 to 2020

Legend

>90MME

Percent change from 2019 to 2020



>90 MME percent change with more than 20% increase

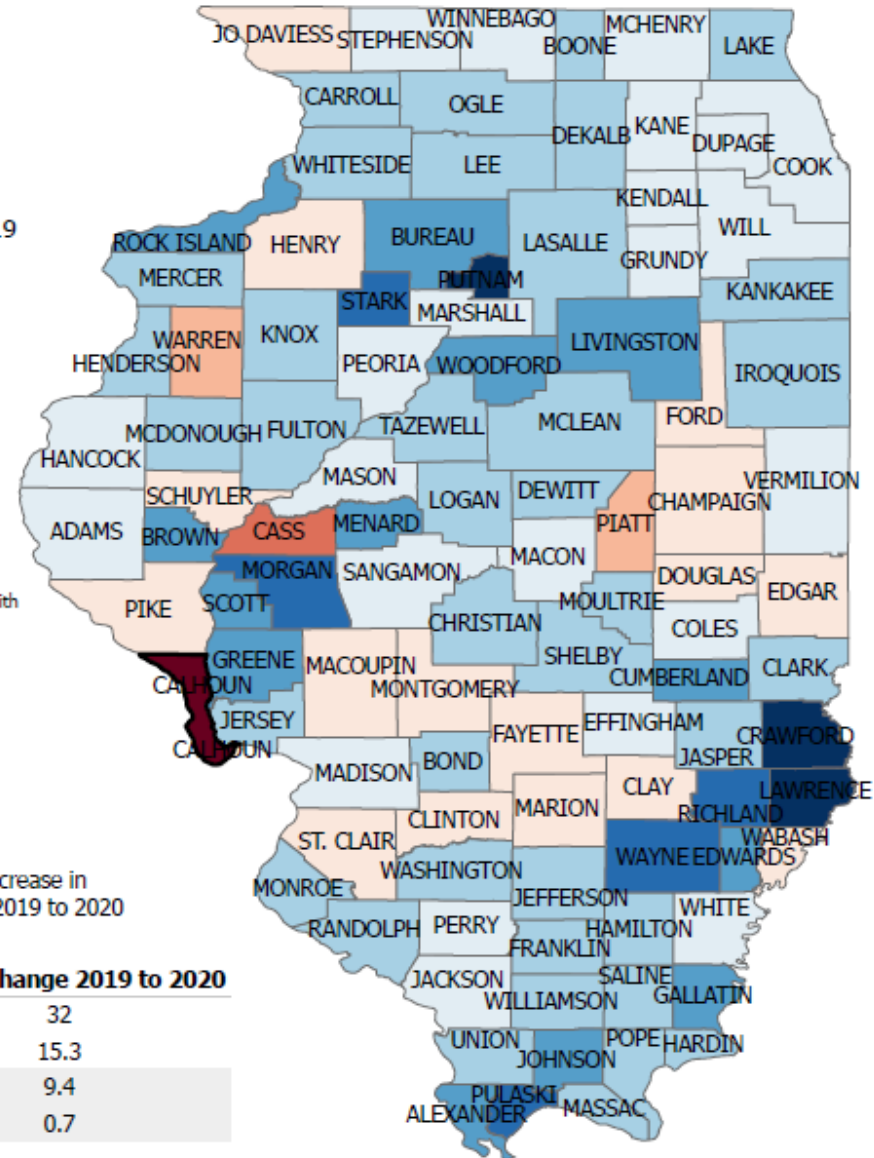


Table 1. Counties with an increase in >90MME's per capita from 2019 to 2020

County	Percent change 2019 to 2020
Calhoun County	32
Cass County	15.3
Warren County	9.4
Piatt County	0.7

Geographic Representation

Multiple Provider Episodes

Percent Change in Multiple Provider Episodes per Capita from 2019 to 2020

Legend

Multiple Provider Episodes

MPE_Per_change19to20

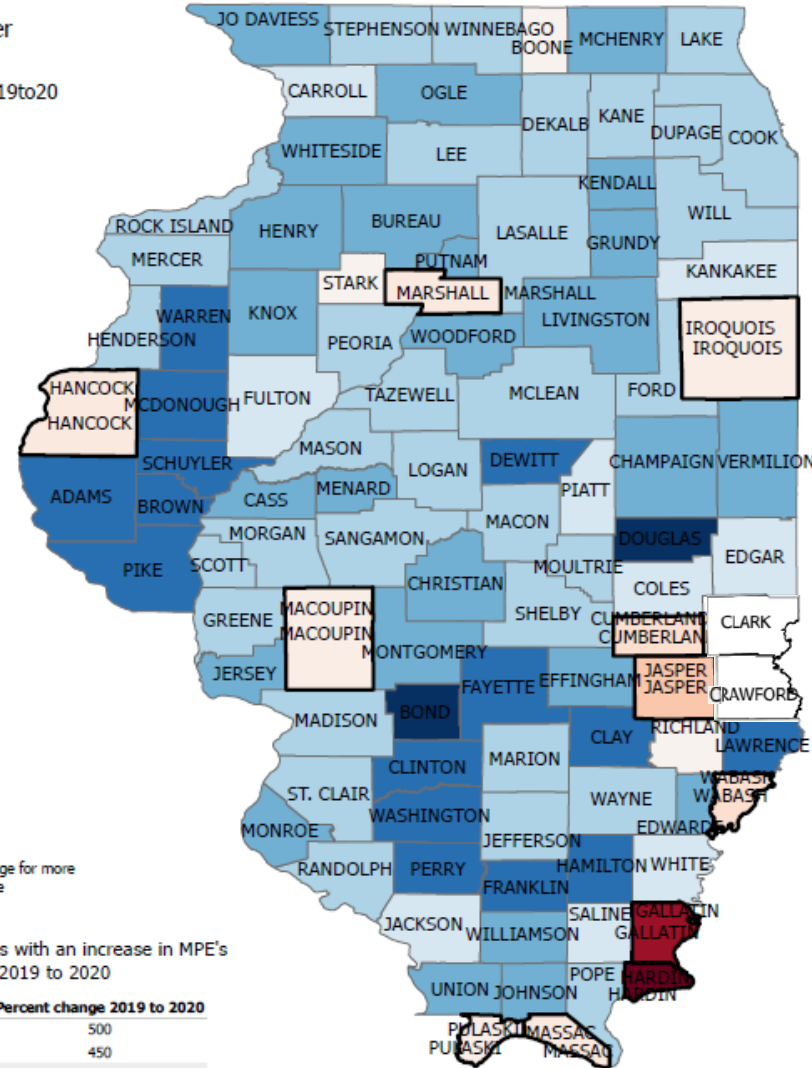
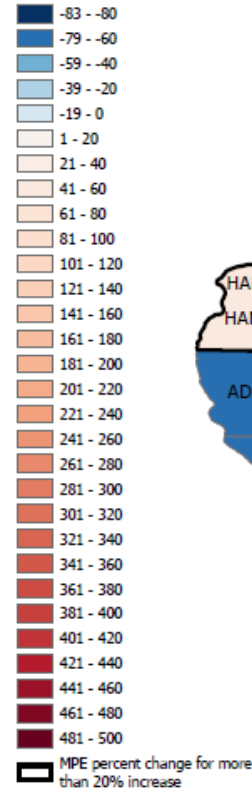


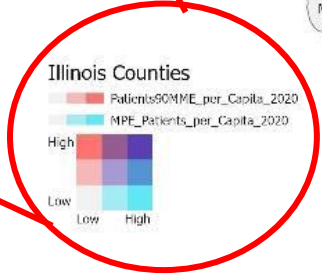
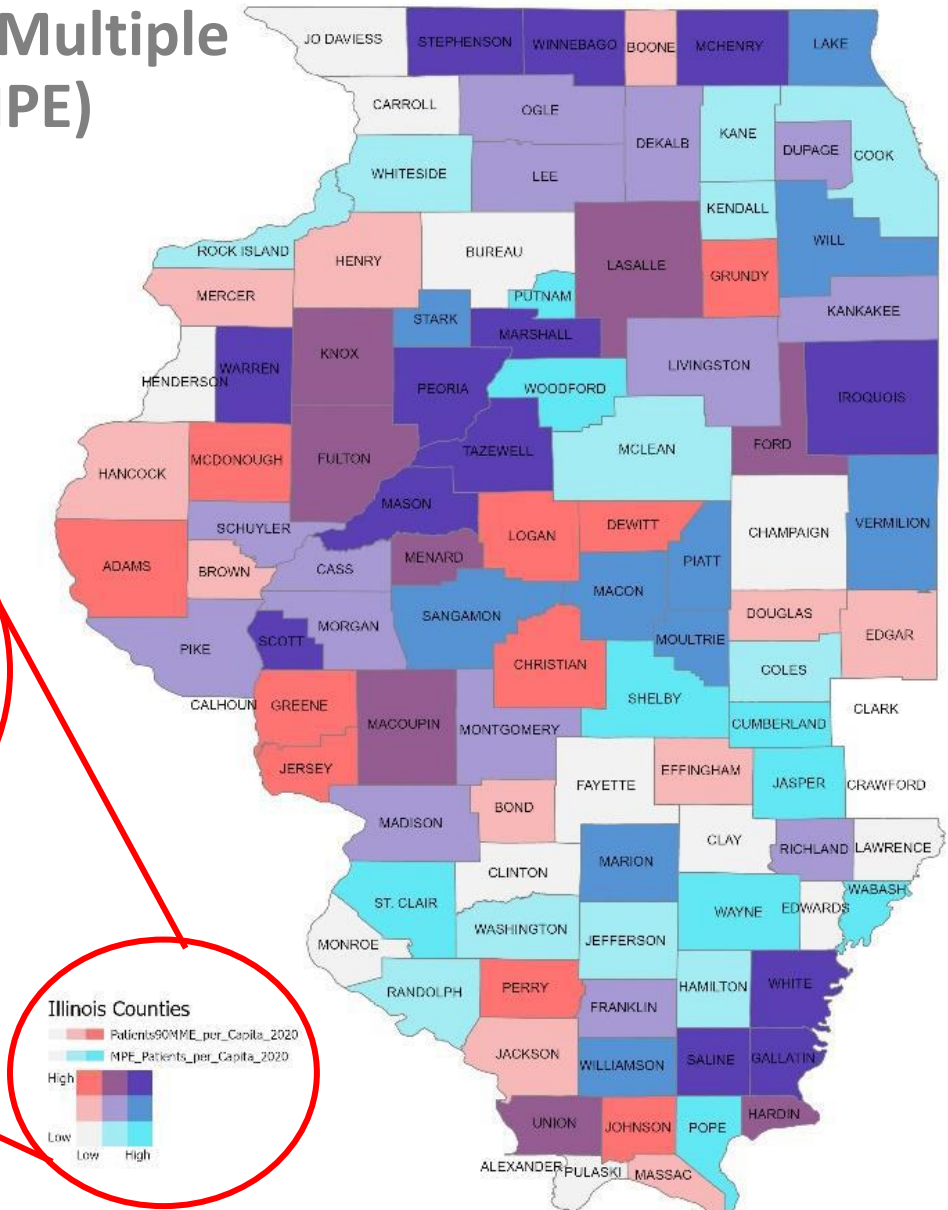
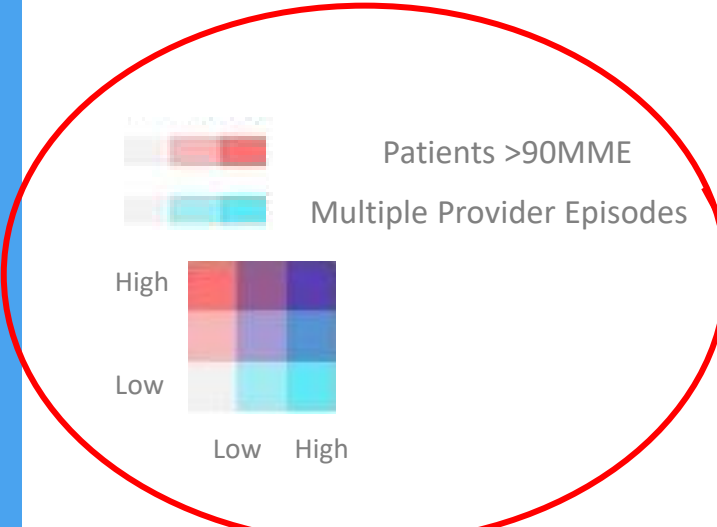
Table 1. Counties with an increase in MPE's per capita from 2019 to 2020

County	Percent change 2019 to 2020
Hardin County	500
Gallatin County	450
Jasper County	160
Cumberland County	86.7
Wabash County	85.7
Marshall County	59.4
Hancock County	57.1
Massac County	50
Iroquois County	38.3
Pulaski County	33.3
Macoupin County	24.4

Bivariate Correlation

High dose opioids vs MPE

Patients >90MME vs Multiple Provider Episodes (MPE)



Pending Projects

County sociodemographic analysis

Opioid overdose analysis

- Any opioid
- Opioid MME/day
- Buprenorphine
- Naloxone



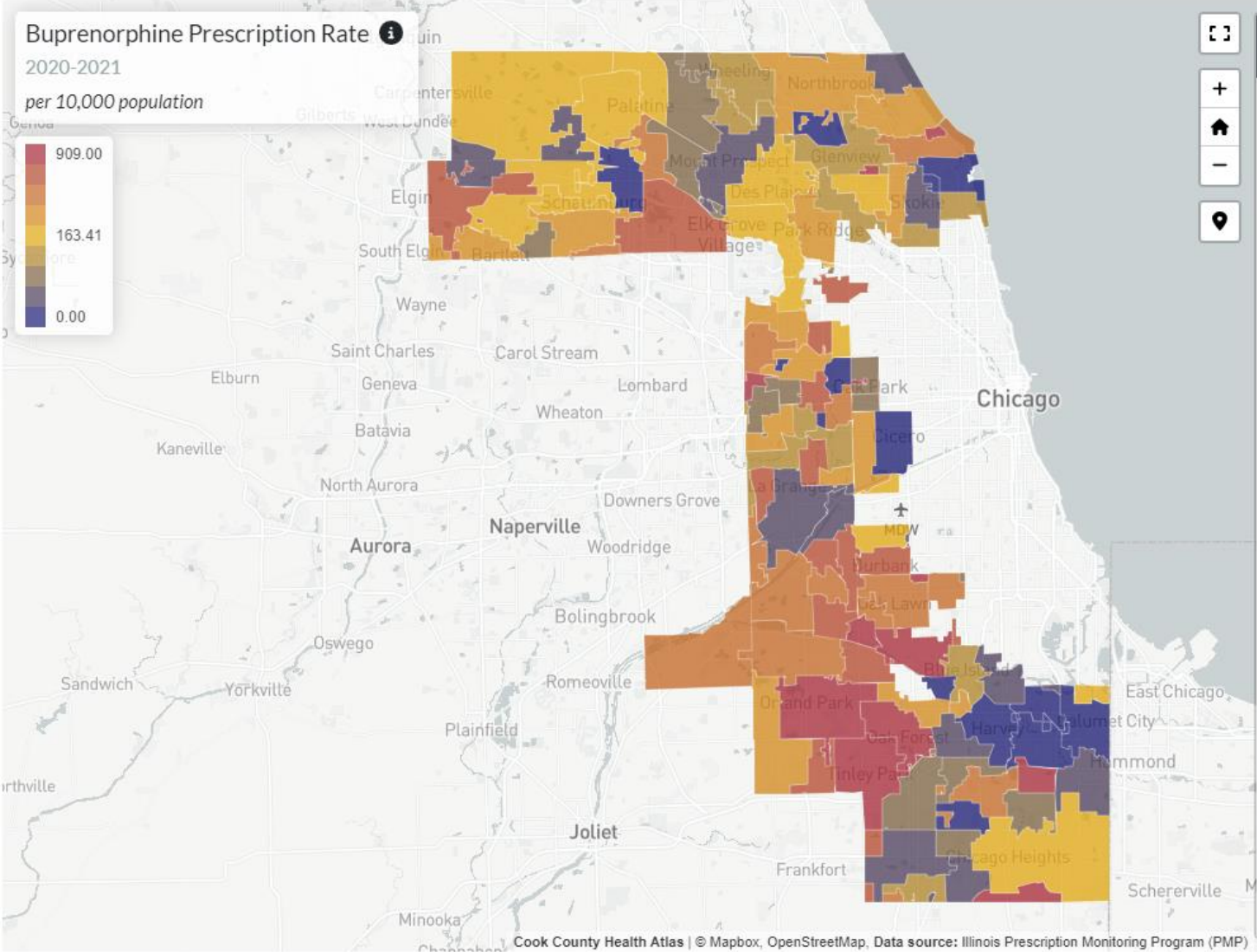
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Buprenorphine Prescribing

Planned KAP Survey

Buprenorphine Prescription Rates



Planned Future Efforts

Pharmacist Knowledge, Attitudes, & Practice Survey

- Naloxone dispensing
- Statewide naloxone standing order

Prescriber Cumulative Reference Score

Categorize specific weighted risk items

- Opioid MME/day quantity
- Benzodiazepine co-prescribing
- Sedative-hypnotic prescribing

Validate Utilizing OD data

Education Partnerships



The Center for Rural Health and Social Service Development (CRHSSD) at Southern Illinois University Carbondale (SIUC)

Pharmacist Academic Detailing

- Naloxone Dispensing
- Increase use of Naloxone SO

Prescriber Academic Detailing

- With Peer Review Committee
- Identification of possible prescribing concerns
- Required response by prescribers

Analyze effectiveness of intervention



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Prescriber Education

- Development of targeted toolkits

Pharmacist Education

- Increase utilization of naloxone SO

Patient Education

- Awareness campaign
- Naloxone education and training

Future Epi Work

Stimulant Analysis

Overdose Data Analysis

Expanded Regional Analysis

Expanded MAR Initiatives

Questions?



Sarah Pointer, PharmD

Clinical Director, ILPMP

Sarah.Pointer@illinois.gov

Eric N. Huff, PharmD, MBA

Clinical Project Manager, ILPMP

Eric.Huff@Illinois.gov

ILPMP.org

Tech Center Phone: (217) 524-1311

