

Wisconsin Opioid Outcomes Linked Data Set

OD2A Linkage to Care Community of Practice
May 22, 2023

Lindsay Emer

Dean Krahn

Caitlin Murphy

Ron Prince

How it started

- Division of Care and Treatment Services (DCTS)
 - ◆ Funding for treatment services
 - ◆ State Opioid Response grant
- Main Questions:
 - ◆ Who needs treatment?
 - ◆ Are those who need treatment, getting treatment?
 - ◆ Are those who need treatment, getting “evidence-based” treatment?
 - ◆ Are those who get “evidence-based” treatment doing better than those who don’t?

Identify data sources

- Main Questions:
 - ◆ Who needs treatment?
 - Hospital discharge data, death data
 - ◆ Are those who need treatment, getting treatment?
 - PDMP (Prescription Drug Monitoring Program)
 - ◆ Are those who need treatment, getting “evidence-based” treatment?
 - PDMP
 - ◆ Are those who get “evidence-based” treatment doing better than those who don’t?
 - Hospital discharge data, death data

Identify data sources

- Division of Public Health (DPH) partnership
 - ◆ Strong relationship
 - ◆ Access to data
- DPH – Data Governance Board
 - ◆ Approve project – linkages
 - ◆ DUA

Operationalizing goals

- ◆ Who needs/needed treatment?
 - Opioid overdose and/or OUD diagnosis in hospital discharge data, died of a drug overdose
- ◆ Are those who need treatment, getting treatment?
 - PDMP – buprenorphine prescription fill
 - Medicaid
- ◆ Are those who need treatment, getting “evidence-based” treatment?
 - Define “evidence-based” – consecutive prescription fills? No gaps in prescription fills?
- ◆ Are those who get “evidence-based” treatment doing better than those who don’t?
 - Define “better” – fewer overdoses? Fewer deaths?

Products

- ◆ DCTS/DPH product
 - Update quarterly
 - Share findings with state and county leadership
 - Guide prevention and treatment recommendations
- ◆ Other “products”
 - De-identified, linked dataset
 - Research

Current Data Sources

A) Hospital discharge – 1/1/2016 through 6/30/2022

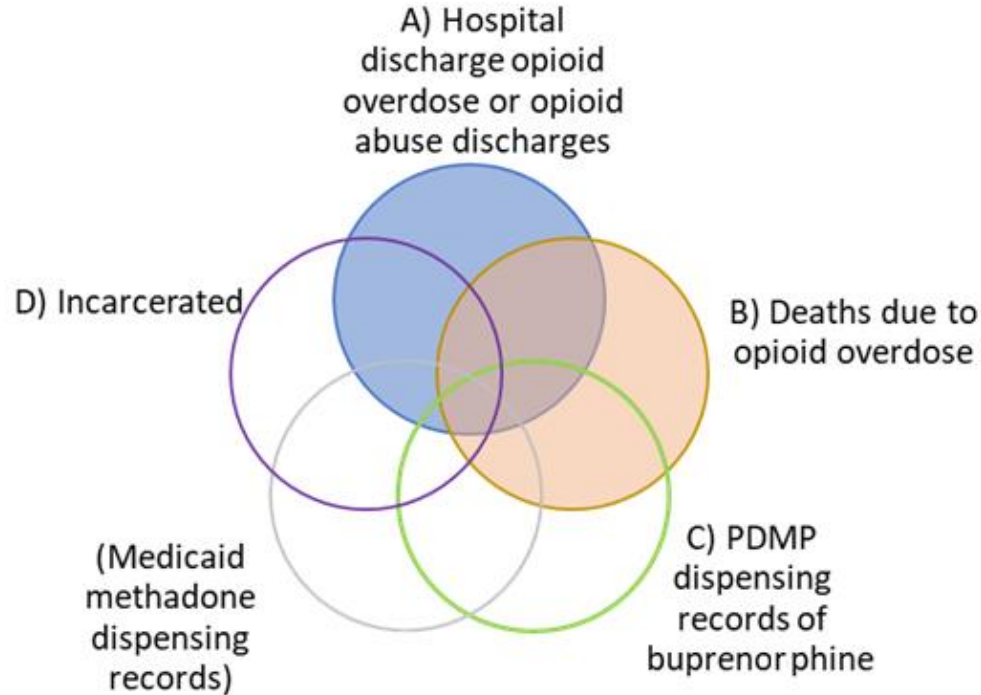
B) Death records – 1/1/2017 through 2/6/2023

C) PDMP 1/1/2016 through 12/31/2022

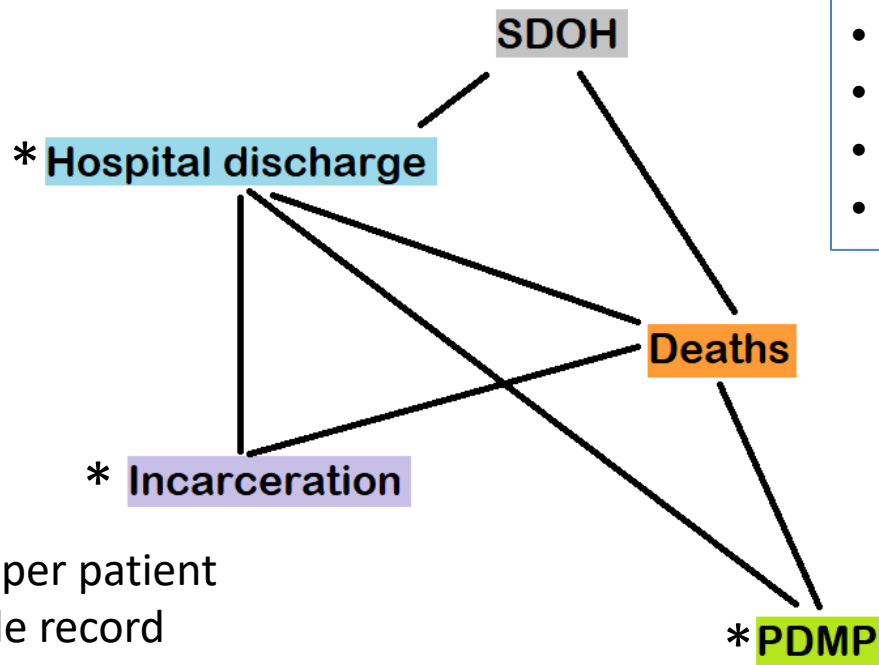
D) Department of Corrections – 1/1/2008 through 6/30/2020

E) Social Determinants of Health (SDOH) – US Census Bureau
Community Resilience Estimates 2019

Current data included



Linkages



Matching keys

- Full name
- Sex
- Date of birth
- Zip code

* Multiple records per patient
aggregated to single record

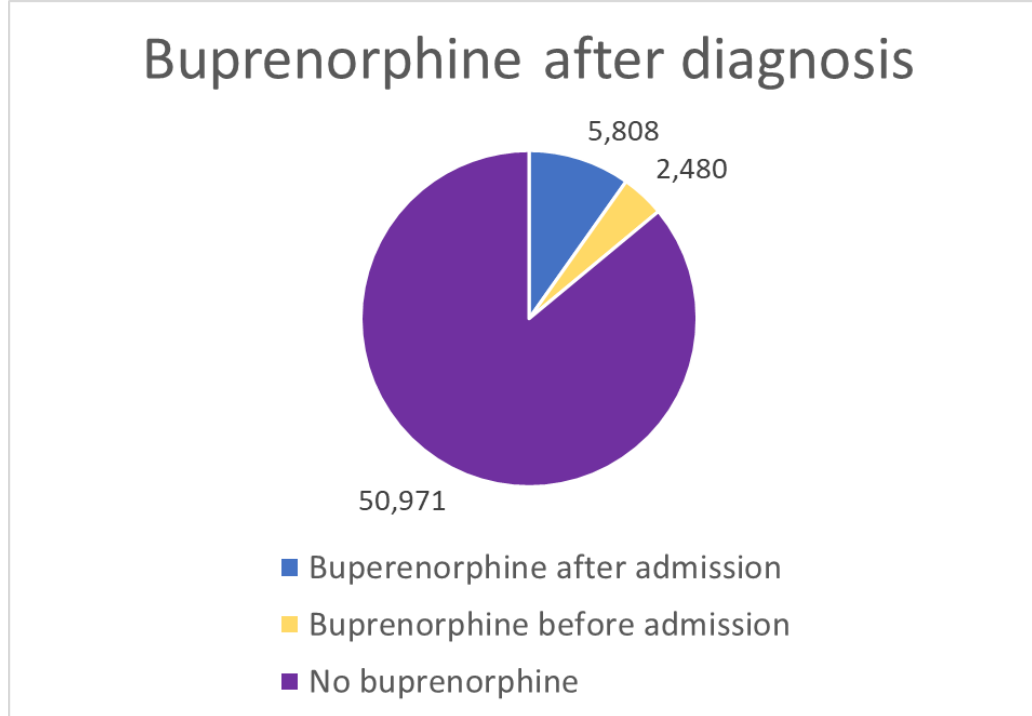
One record per patient timeline

	Receiving buprenorphine		OD = hospital discharge opioid overdose									
	Incarcerated		FOD = fatal opioid overdose									
	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Patient 1								FOD				
Patient 2												
Patient 3				OD								
Patient 4		OD										
Patient 5				OD								
Patient 6												
Patient 7												
Patient 8							FOD					
Patient 9												
Patient 10												FOD

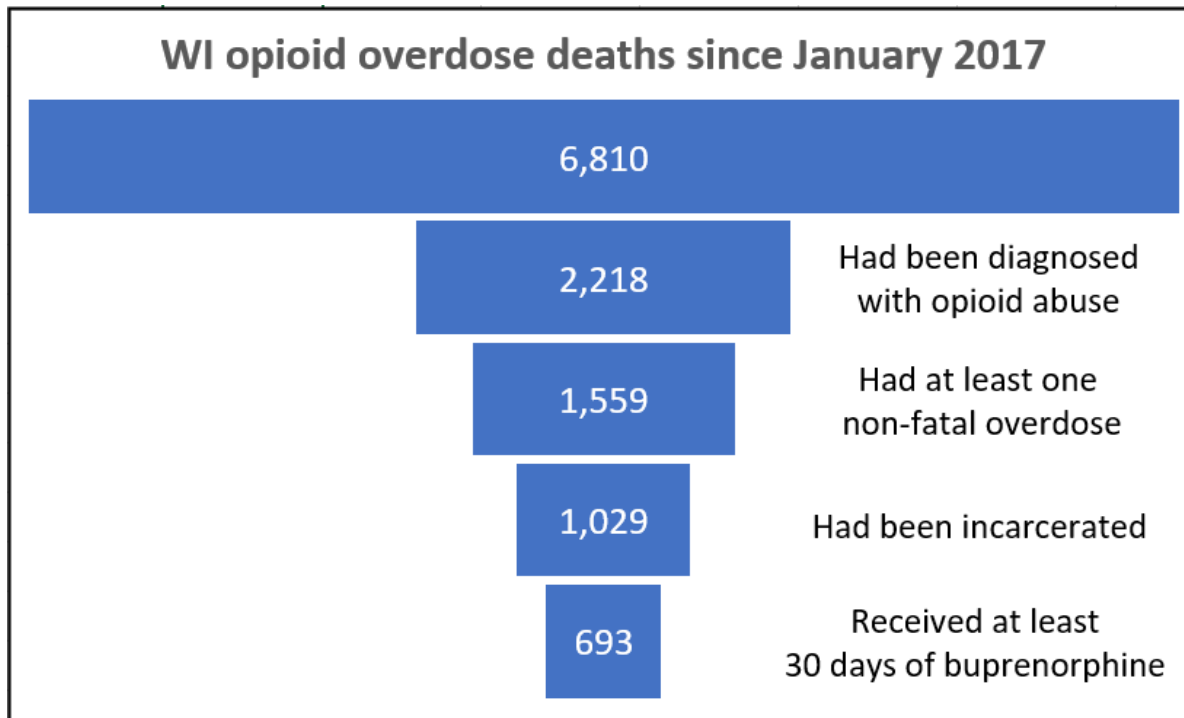
Disclaimer

- Note: the linked data set is a work in progress.
- Preliminary results are consistent, but many details are still being examined.
- So, what follows are *suggestive* findings, not final.

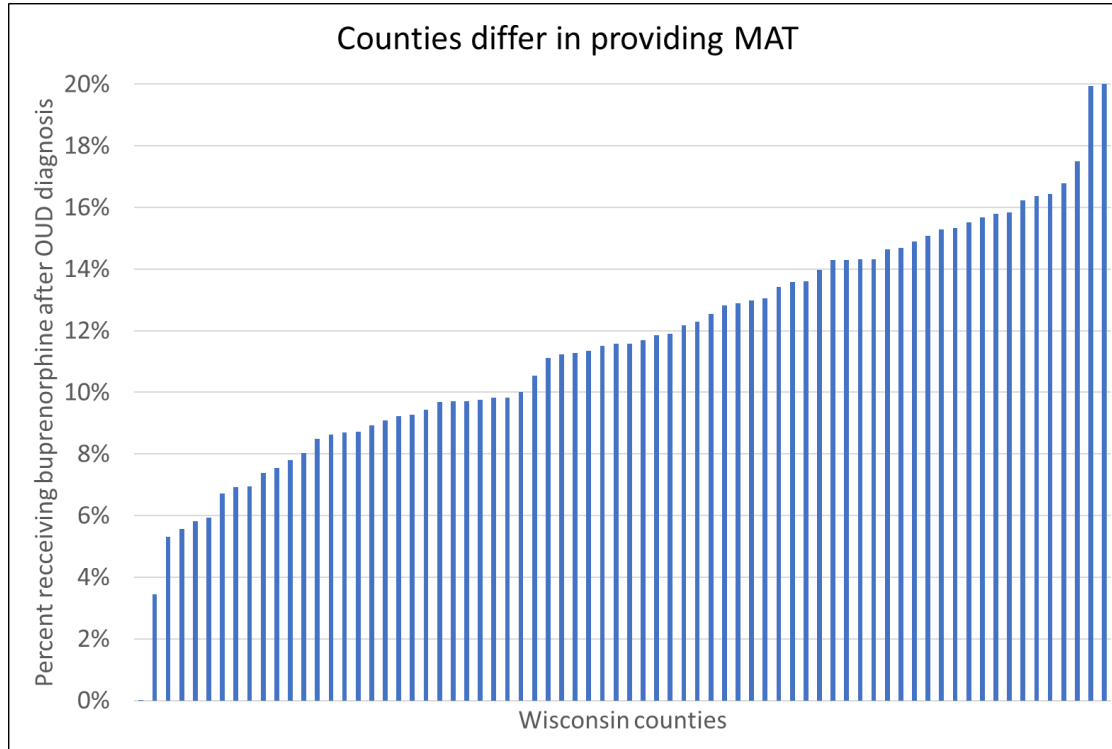
Not enough getting medication for opioid use disorder (MOUD)



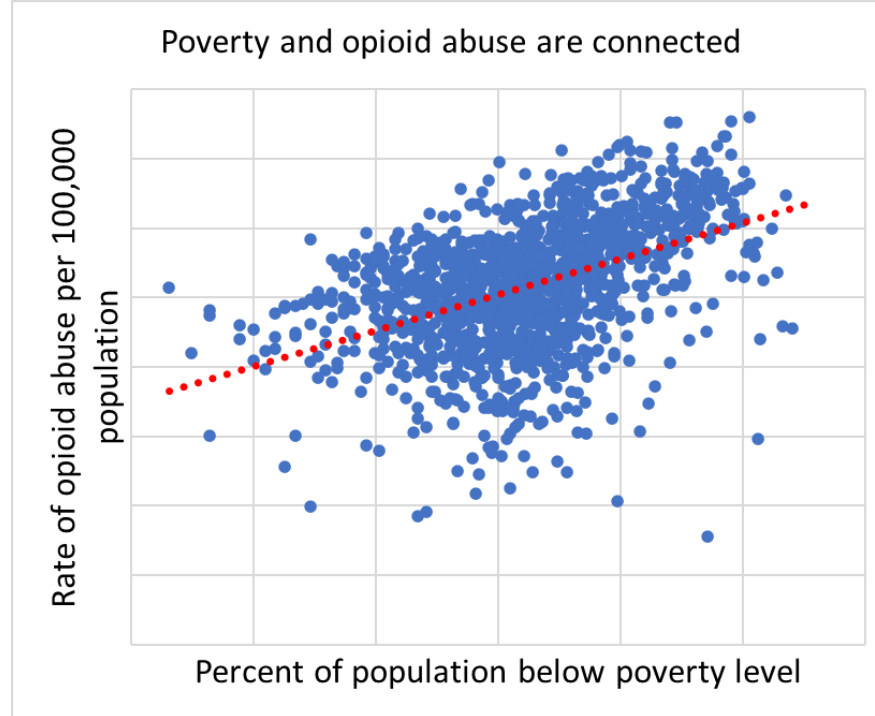
Few who died ever received buprenorphine beforehand



Buprenorphine treatment rates vary across counties



Census tracts with higher poverty experience higher rates of OUD



Pearson $r=0.49$

Future plans

1. Include Medicaid data, first methadone.
2. Produce actionable results.
3. Include ambulance run data.
4. Pursue including criminal justice (e.g., drug offense, county jail incarceration).
5. Explore additional data sources:
 - ◆ Emergency department to recovery (ED2R)
 - ◆ Harm reduction measures

Thank you for your attention!

- Contact:

- ◆ Lindsay Emer lindsayr.emer@dhs.wisconsin.gov
- ◆ Dean Krahn dean.krahn@dhs.wisconsin.gov
- ◆ Caitlin Murphy caitlin.murphy@dhs.wisconsin.gov
- ◆ Ron Prince ronald.prince@dhs.wisconsin.gov