HSD76

# Investigating the Impact of Self-Help Groups on Opioid Use Disorder Treatment Retention

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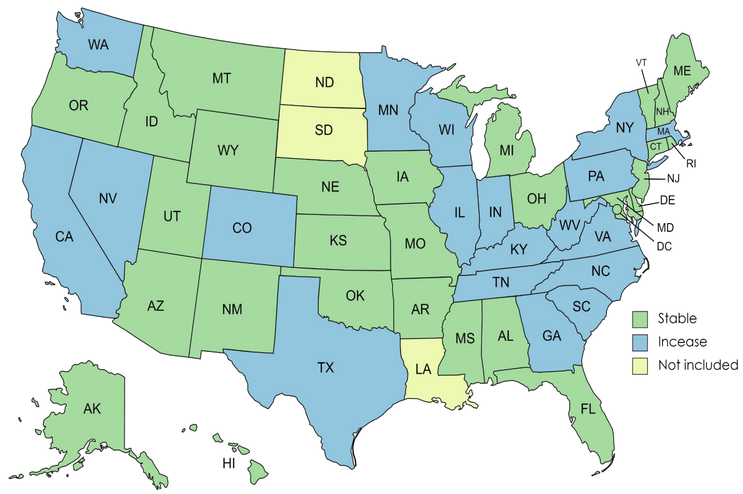
## Background:

- An estimated 2.7 million people were reported suffering from Opioid Use Disorder (OUD) in the year 2020
- Nearly 75% of drug overdose-related deaths were attributed to opioids, killing nearly 69,000 in 2020
- Medication for Opioid Use Disorder (MOUD), like buprenorphine, methadone, and naltrexone are currently the gold standard for treatment
- Longer-term treatment retention on MOUD is associated with improved mortality; however, a large proportion of patients discontinue prematurely within the first few months




Variations in prescription opioid related overdose deaths in 2019-2020

## Objective:

To investigate if self-help group improves **MOUD** treatment retention

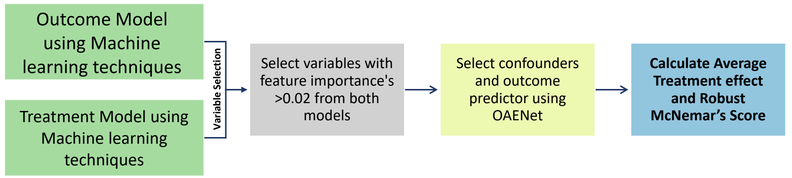
## Study Design:

- DATA: Treatment Episode Dataset – Discharges (2015-17)
- Treatment: MOUD - methadone, buprenorphine, or naltrexone as part of the treatment plan
- Outcome: Completion of treatment – All parts of the treatment plan or program were completed
- Attendance at self-help groups: use of self-help groups within 30 days before discharge (any attendance frequency counts)

## ML Assisted Causal Inference Framework:

**Step 1: Association Model**


**Step 2: Causal Model**

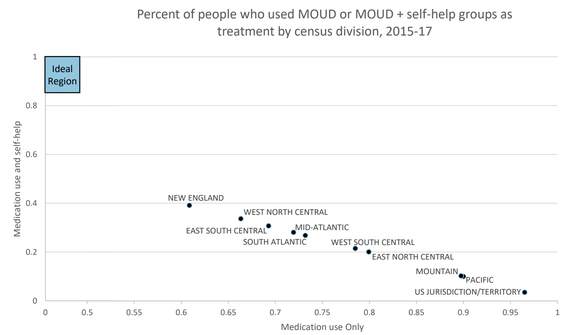



## Result:

- ML models for predicting treatment retention show that the self-help group is a strong predictor, and it is positively associated with improving treatment retention
- We selected confounders using Outcome Adaptive Elastic Net and used propensity score based Nearest Neighbor matching technique, which provided ATT = 0.202
- Robust McNemars test p-value = 0.0105, which suggested self-help groups causes improvement of MOUD treatment retention

## Conclusion:

- Our finding informs a critical policy for MOUD treatment retention
- Self-help group utilization rates are low and vary across census divisions, ranging from 3% to 40%
- Policymakers should take necessary action to integrate bimodal treatment (MOUD + self-help groups) to ensure improvement in treatment retention




## Limitation:

- Data lacked detailed information about specific types of self-help groups being used as a part of recovery programs
- Data also lacked information about the severity of the patient's condition and about the specific MOUD received by them

## References:

- *Data Overview |Opioids | CDC*. Retrieved April 17, 2023, https://www.cdc.gov/opioids/data/index.html
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## Contact Information: