# National Perspective on the Epidemiology of Opioid Addiction and Treatment

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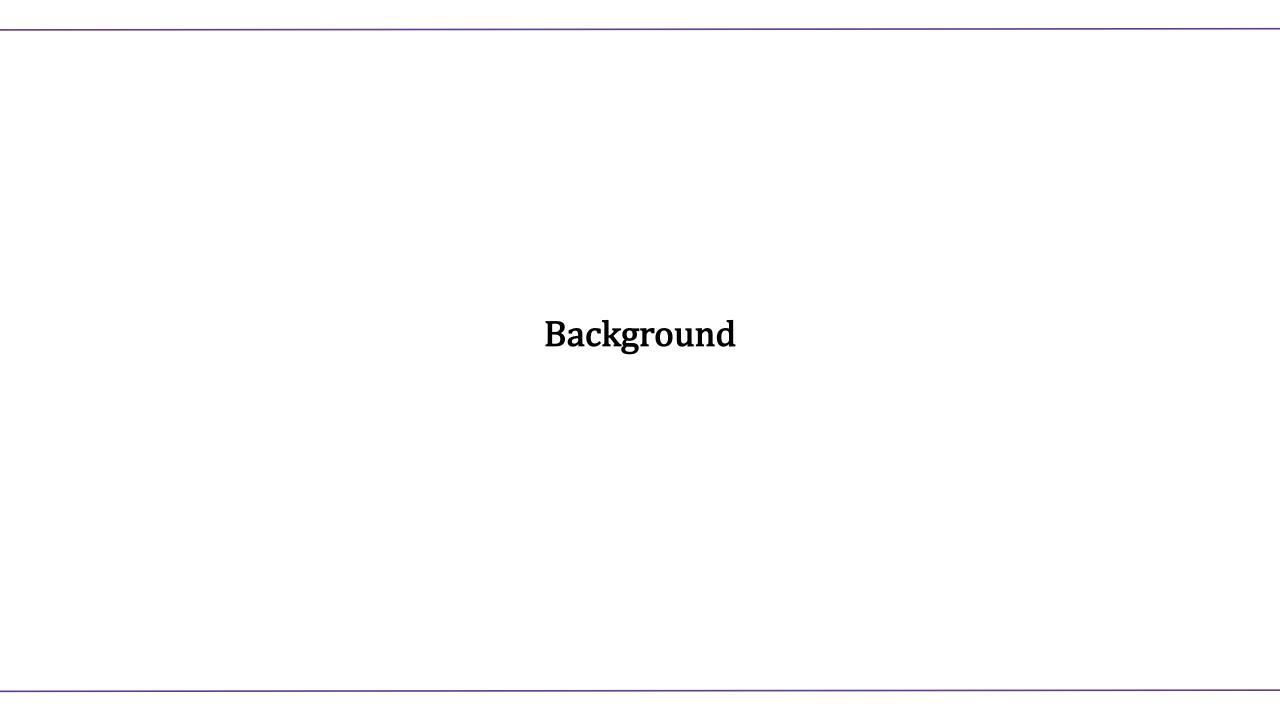
Center for Health Equity Research

## Agenda

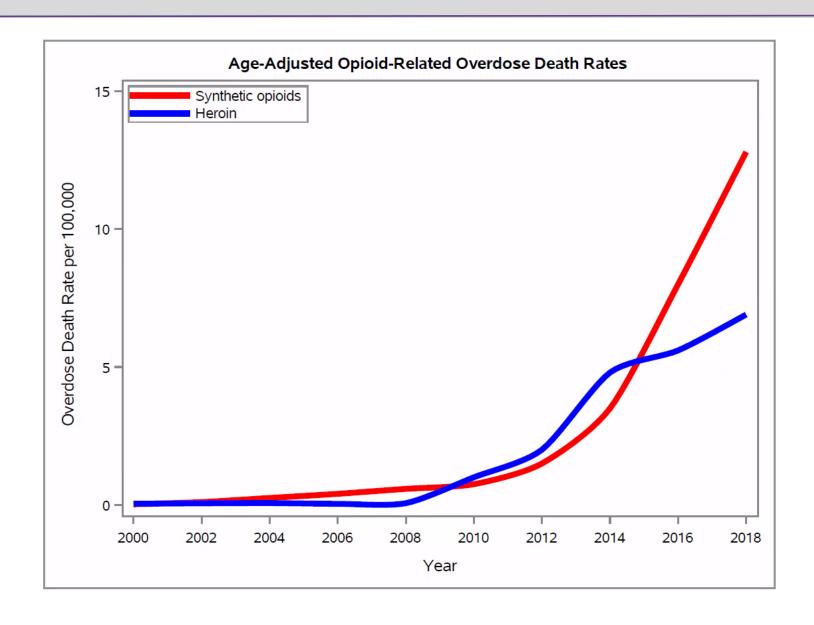
Opioid epidemic background

Treatment Services Research at NAU

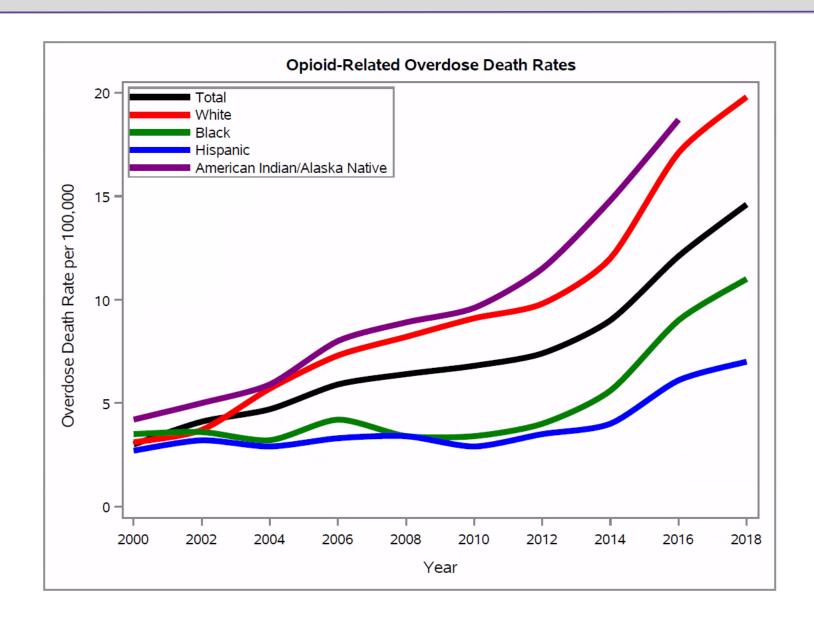
Future Research at NAU



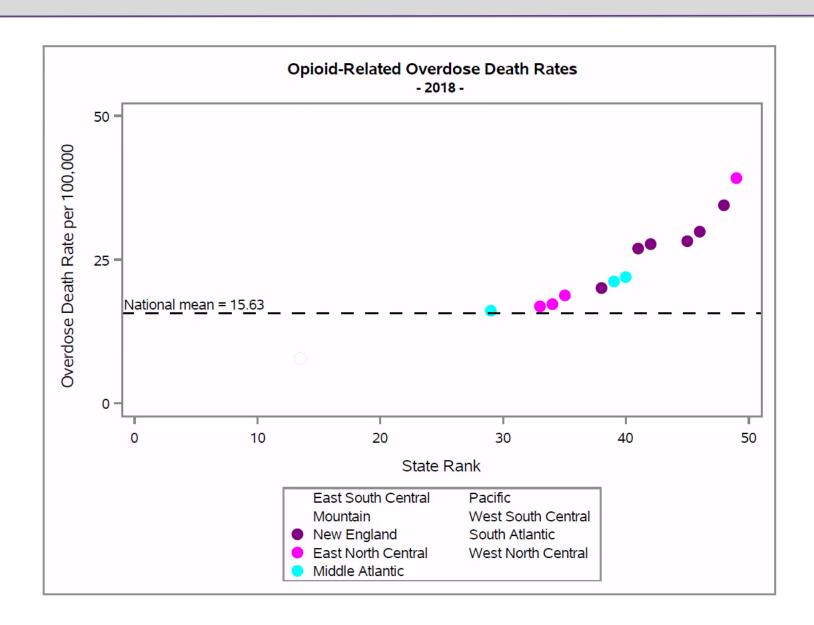
# Opioid types



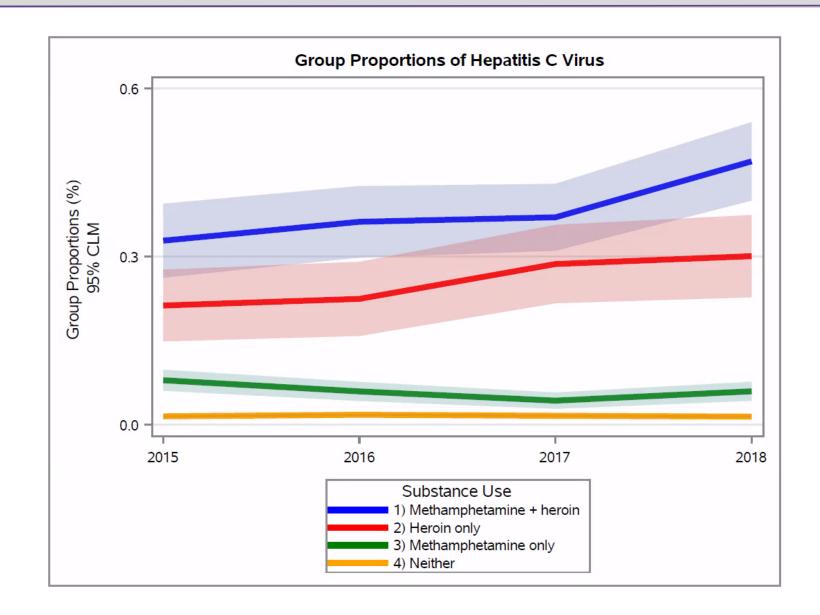
# Racial/ethnic disparities



# Differences by state and region

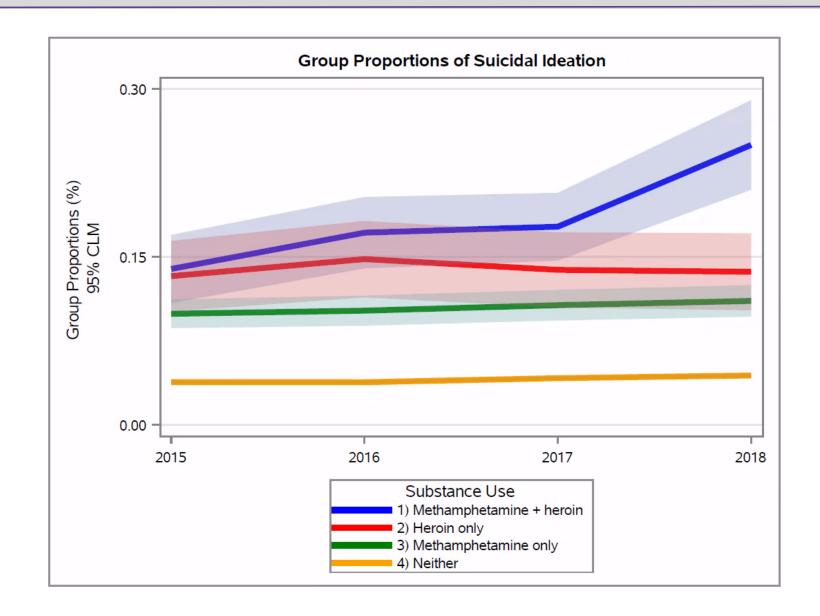


# Converging epidemics



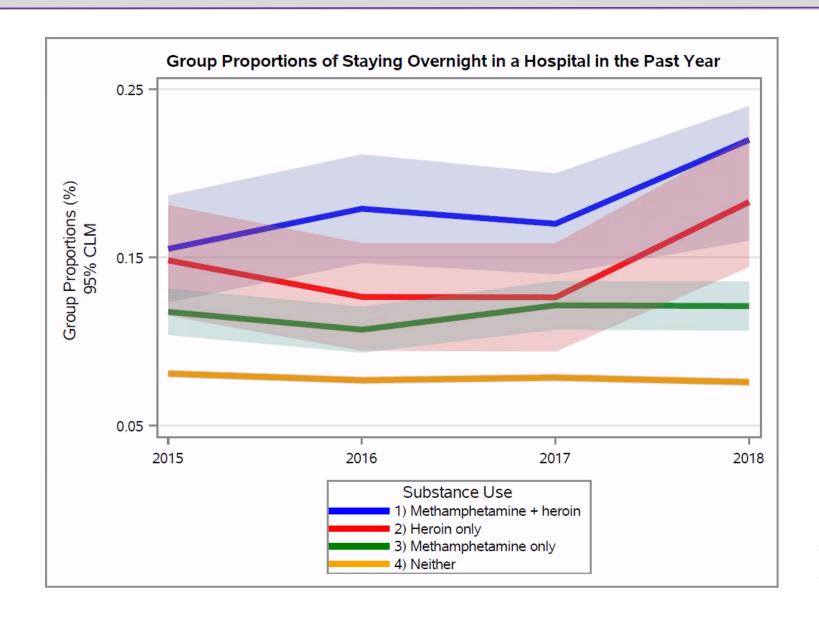
National Survey on Drug Use and Health

# Converging epidemics



National Survey on Drug Use and Health

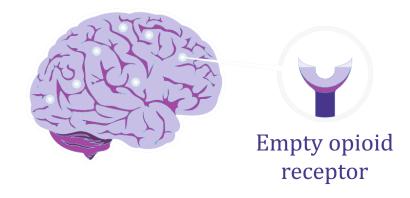
# **Converging epidemics**

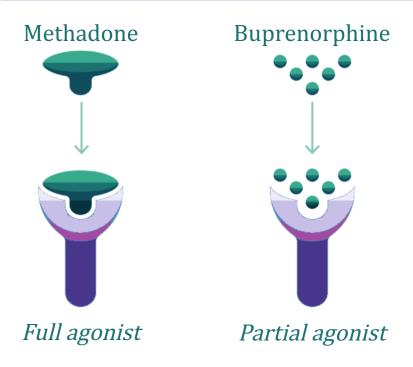


National Survey on Drug Use and Health

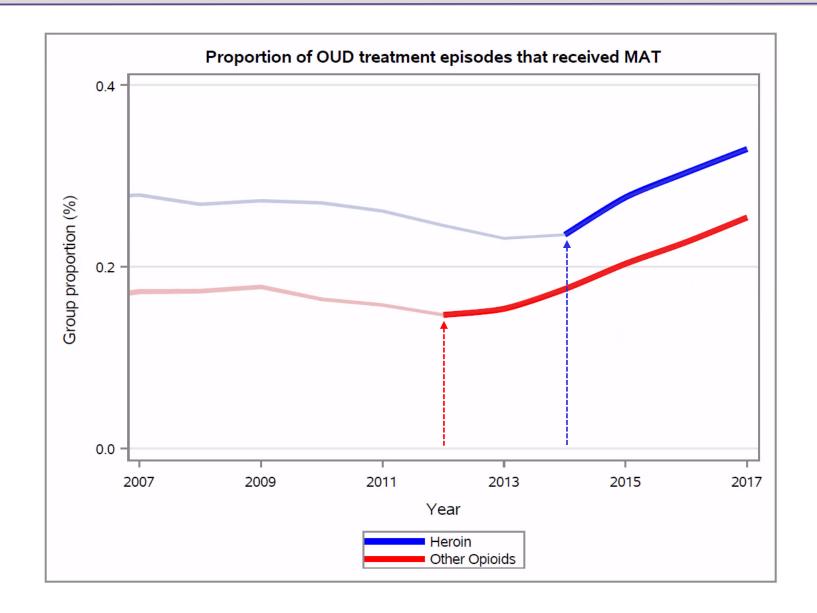


# Medication-assisted therapy





### **MAT** trends



Treatment Episode Dataset-Discharges

### **MAT** outcomes

Pro G, Utter J, Cram J, Baldwin J (2019)

Racial/ethnic and gender differences in associations between medication-assisted therapy and reduced opioid use between outpatient treatment admission and discharge

Journal of Psychoactive Drugs

Accepted/in press

# Research study background

Definitions of MAT success vary

Reducing opioid use improves health and safety

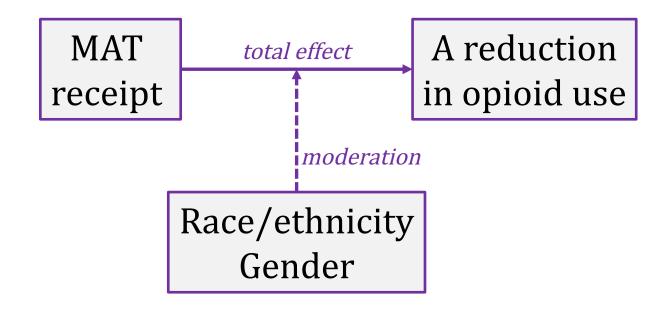
Tolerating some continued opioid use is a <u>harm reduction</u> strategy

## Research study background

#### **RESEARCH QUESTIONS**

To what extent does MAT effect a reduction in opioid use?

And does the MAT effect change based on racial/ethnic and gender group?



#### Data source and methods

Treatment Episode Dataset-Discharges (2015-2017)

Restricted to those in treatment with heroin or other opioids indicated at outpatient admission

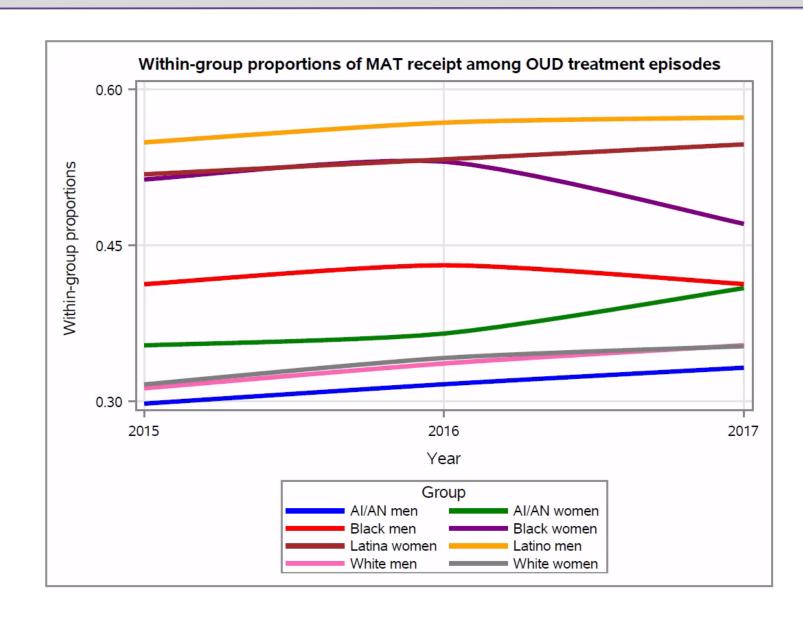
$$n=232,547$$

Statistical modeling to predict the probability of clinical improvement

# Descriptive findings

Greater
MAT receipt

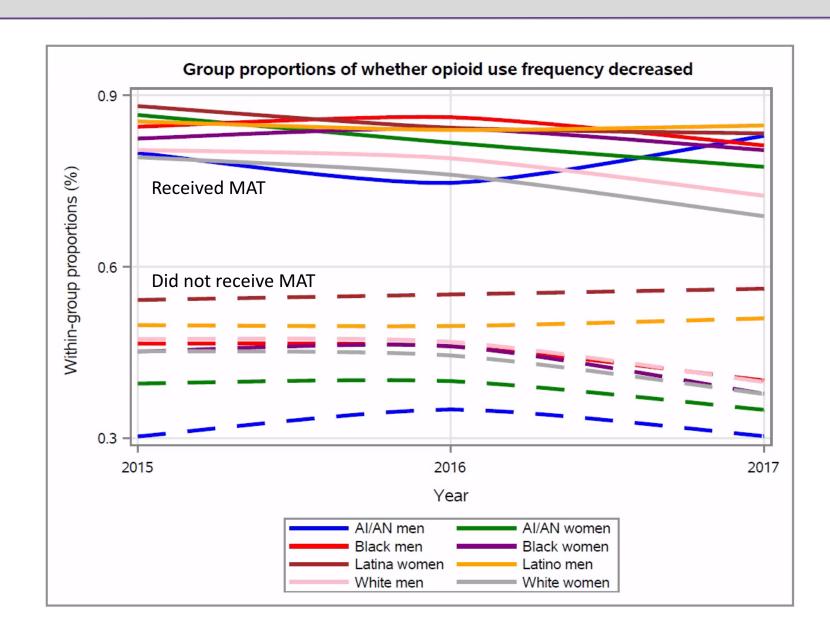
Less
MAT receipt



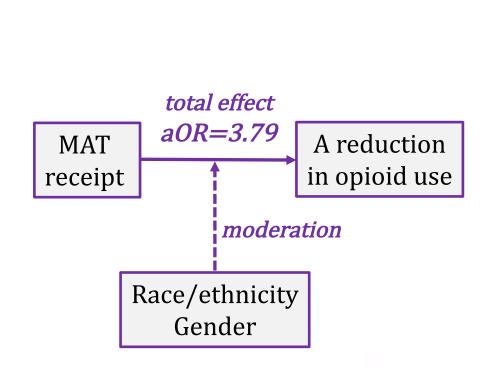
# Descriptive findings

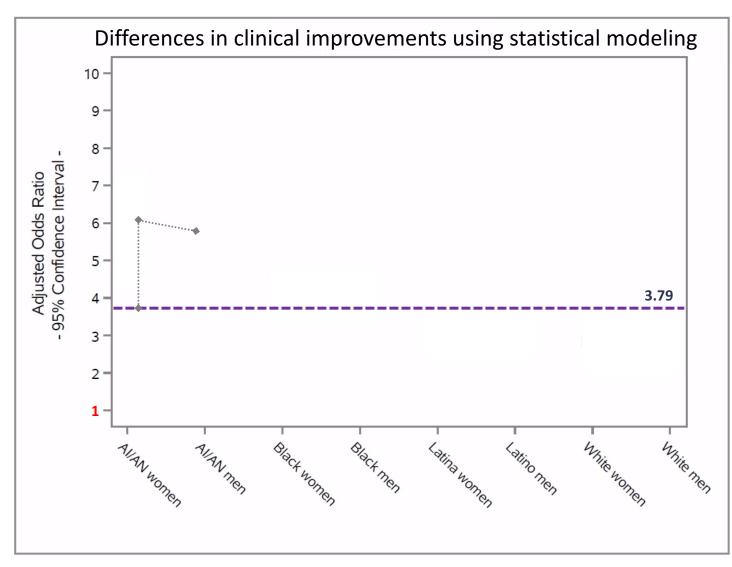
Greater reduction in use

Less reduction in use

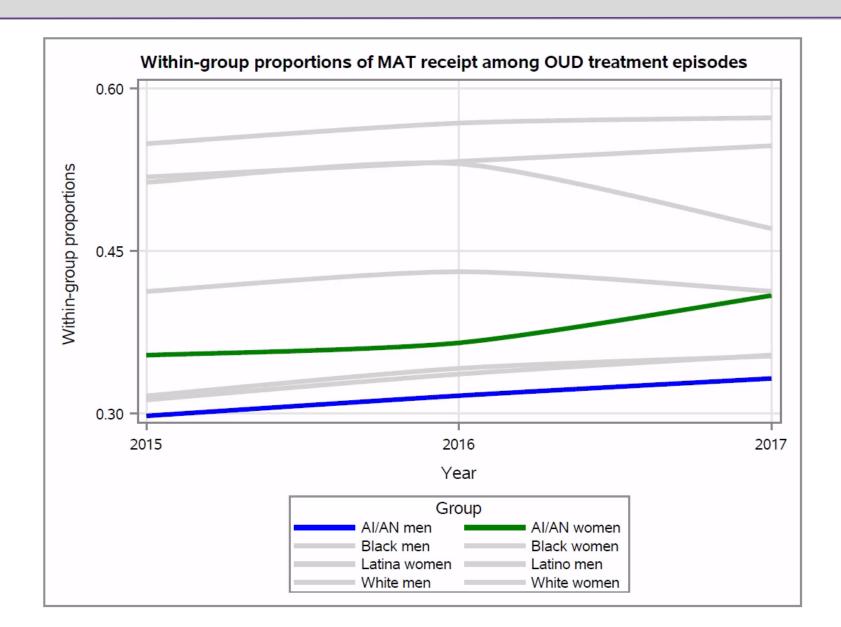


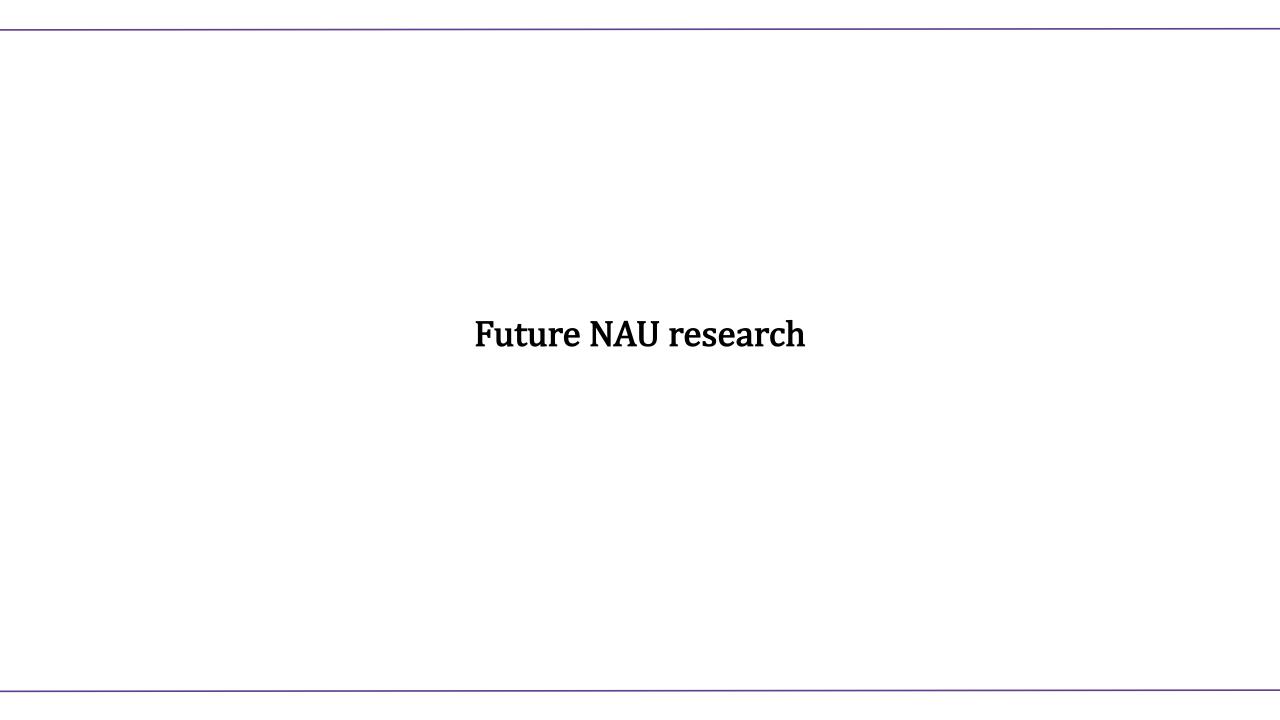
## Measuring group differences using statistical models





### **Discussion**





#### **MAT** medications

Methadone, buprenorphine (Suboxone), and naltrexone (Vivitrol) have similar *efficacy* 

Effectiveness differs based on client characteristics and preferences

OUD treatment services that offer all three are optimal







# MAT availability and utilization

The majority of treatment service providers do not offer MAT

 $\approx 1/3$  of individuals with a need for MAT receive it

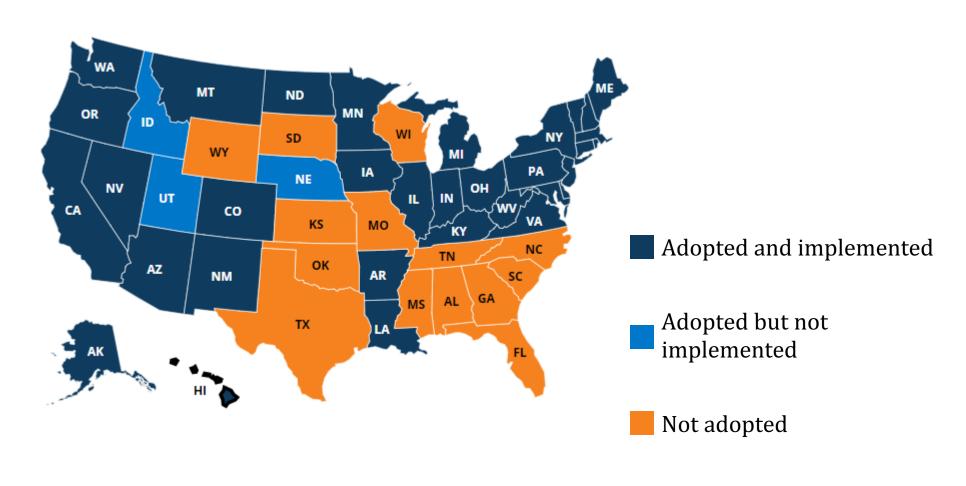
Insurance coverage for each medication varies widely

Fewer than 15% of addiction service physicians have applied for a license to prescribe buprenorphine

### Medicaid expansions under the ACA

#### Medicaid Expansion Decisions

- as of Nov. 2019 -



### Substance abuse and mental health parity

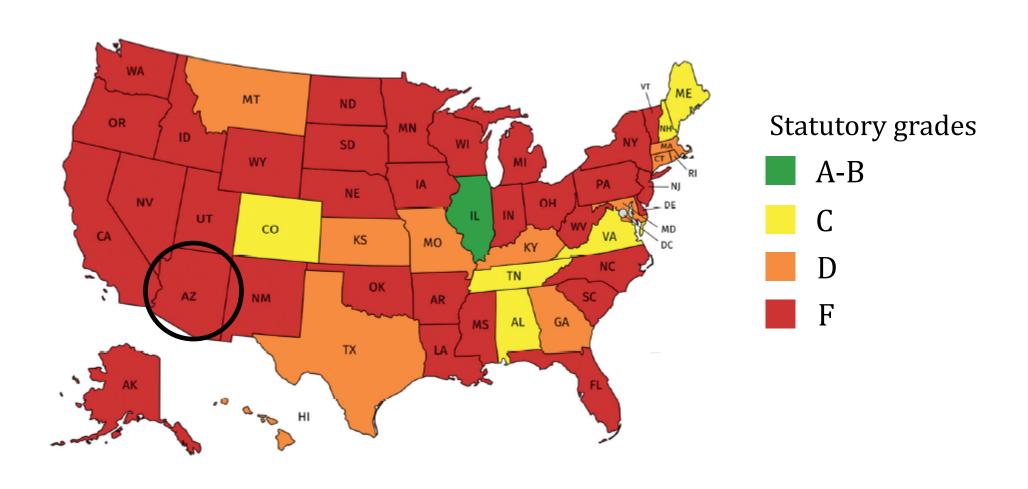
### Mental Health Parity and Addiction Equity Act



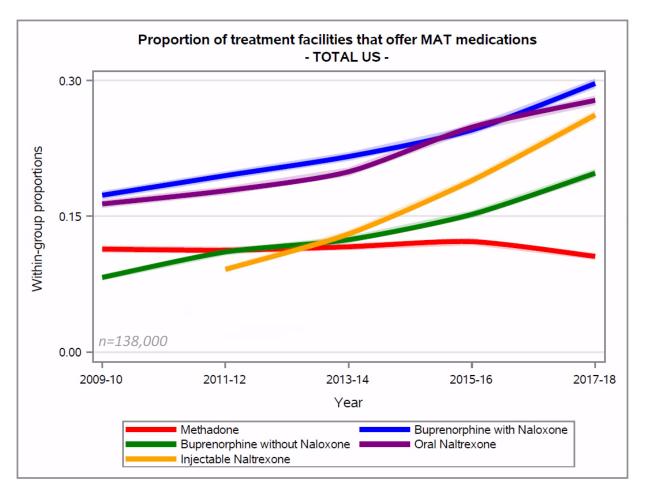
Evaluating State Mental Health and Addiction Parity Statutes: A Technical Report

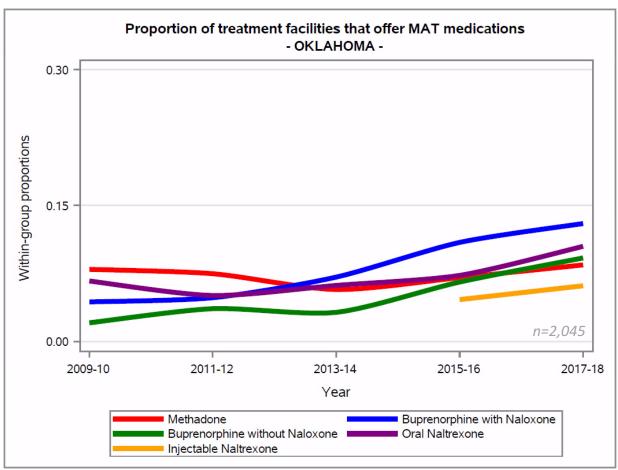
### Substance abuse and mental health parity

#### United States, Color Coded by Statutory Grades

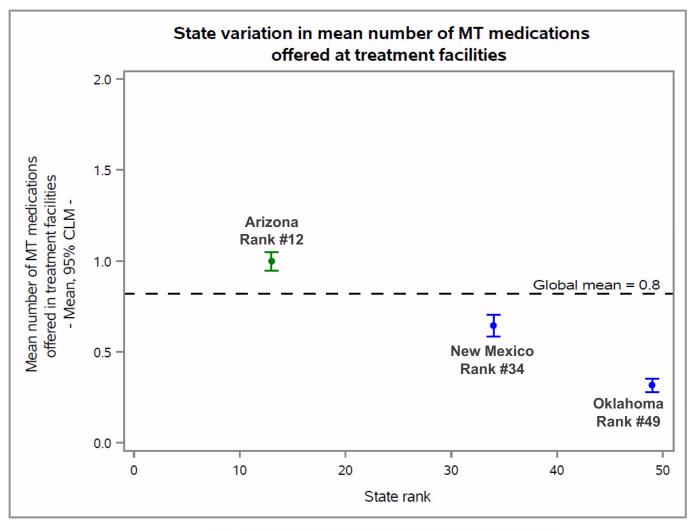


### Relevance to Arizona and neighboring states

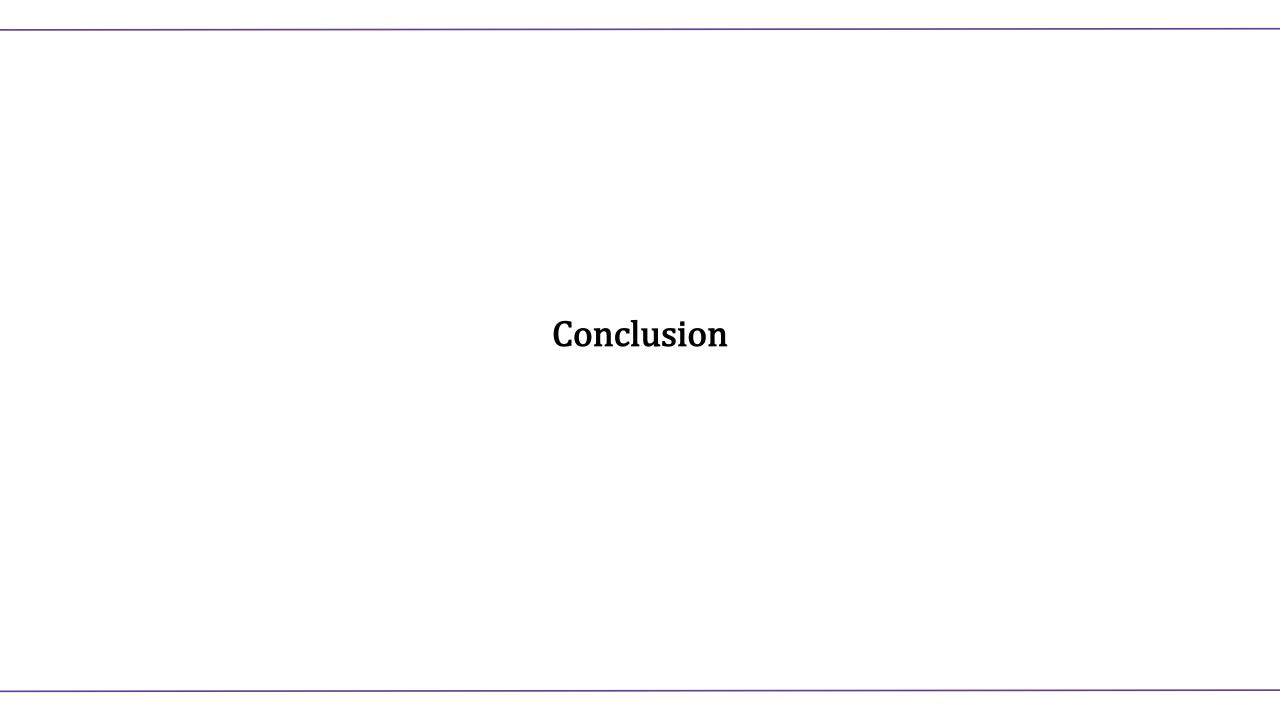




#### Relevance to Arizona and Native American states



- Significantly lower than global mean
- Significantly higher than global mean
- Not significantly different than global mean



### Conclusion

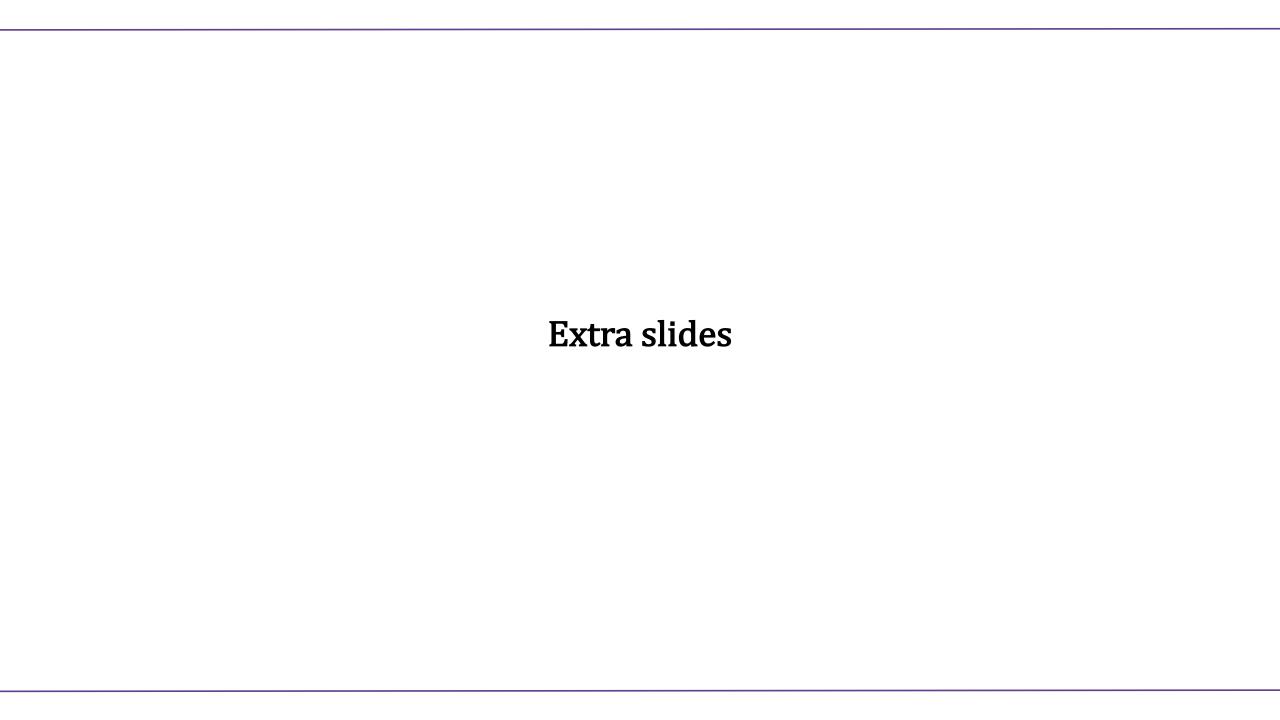
Prevention + MAT

A complex issue with many intersecting parts

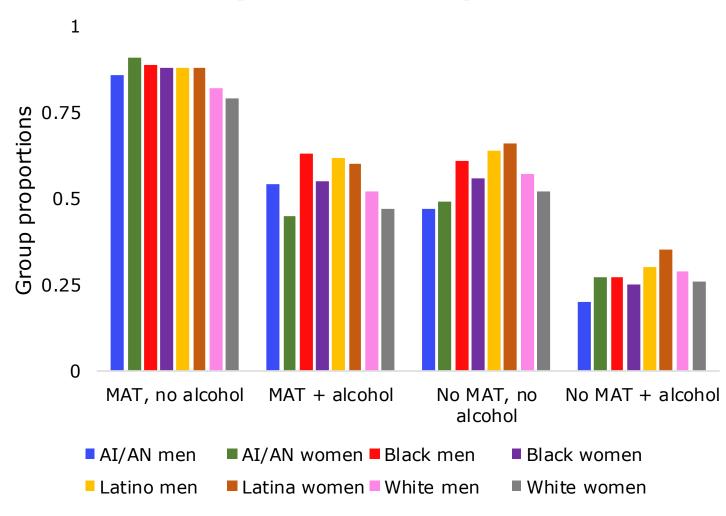
Progress will be driven by interdisciplinary efforts

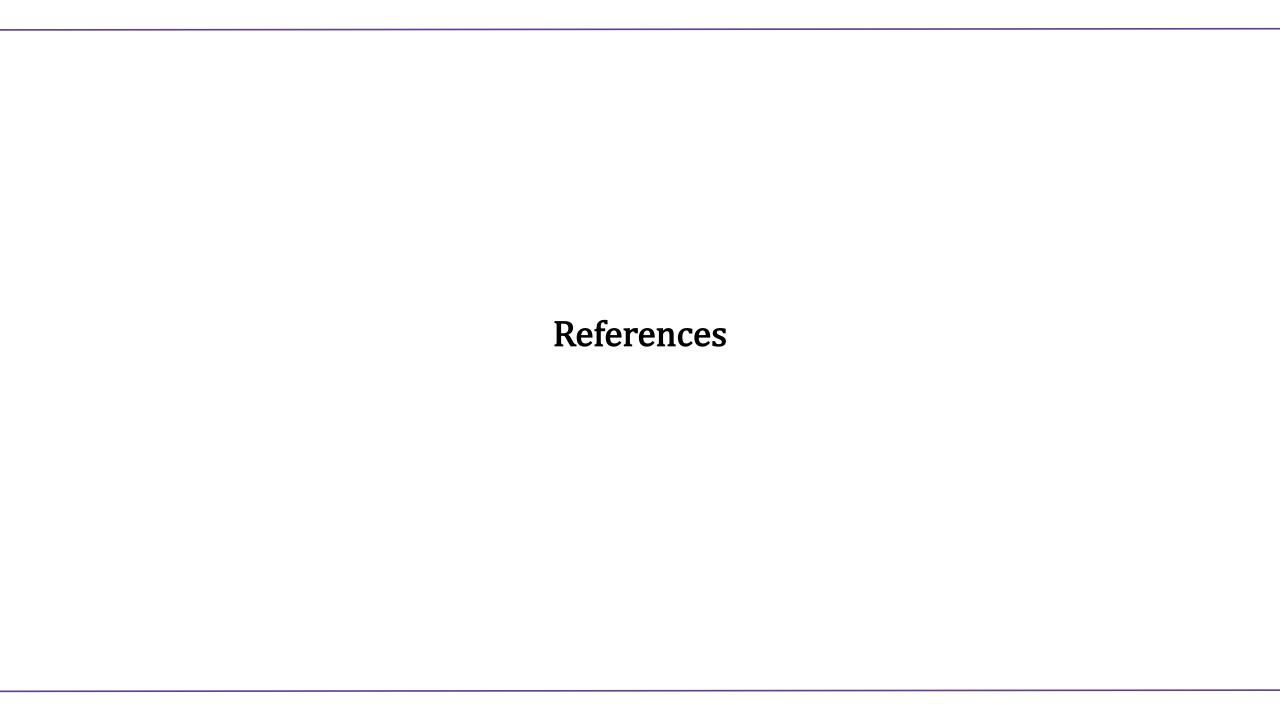
Importance of interprofessional education





Group differences in reduced opioid use between outpatient admission and discharge





#### Slide - Opioid types

National Institute on Drug Abuse. (January 2019). *Overdose Death Rates*. Trends and Statistics. National Institutes of Health. <a href="https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates">https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates</a>

#### <u>Slide – Racial/ethnic disparities</u>

Henry J. Kaiser Family Foundation. (2018). *Opioid Overdose Death Rates by Race/Ethnicity*. Health Status: Opioid Overdose Deaths. https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-raceethnicity/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

Parkhurst ND, Burke A, Montiel A, Davis J, Ritchey J. (2018). *The Opioid Epidemic in Indian Country*. Indian Health Service Cooperative Agreement. Public Health Emergency and Preparedness Technical Assistance. Inter Tribal Council of Arizona, Inc. Tribal Epidemiology Center. <a href="https://itcaonline.com/wp-content/uploads/2018/10/ITCA-TEC-Opioid-Report-2018.pdf">https://itcaonline.com/wp-content/uploads/2018/10/ITCA-TEC-Opioid-Report-2018.pdf</a>

#### Slide - Difference by state and region

Henry J. Kaiser Family Foundation. (2018). *Opioid Overdose Death Rates by Race/Ethnicity*. Health Status: Opioid Overdose Deaths. <a href="https://www.kff.org/other/state-indicator/opioid-overdose-deaths-by-raceethnicity/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D</a>

#### Slide - Study Background

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Brugal M, Dennis B, Bhalerao A, Plater C, et al. (2002). Factors associated with non-fatal heroin overdose: Assessing the effect of frequency and route of heroin administration. *Addiction*, *97*(3)319-327.

Macmadu, A., Carroll, J., Hadland, S., Green, T., & Marshall, B. (2017). Prevalence and correlates of fentanyl-contaminated heroin exposure among young adults who use prescription opioids non-medically. *Addictive Behavior, 68,* 35-38.

Bruneau, J., Roy, E., Arruda, N., Zang, G., & Jutras-Aswad, D. (2012). The rising prevalence of prescription opioid injection and its association with hepatitis C incidence amongstreet-drug users. *Addiction*, 107(7), 1318-1327.

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Veilleux, J., Colvin, P., Anderson, J., York, C., & Heinz, A. (2010). A review of opioid dependence treatment: Pharmacological and psychosocial interventions to treat opioid addiction. *Clinical Psychology Review, 30*(2), 155-166.

#### Slide - MAT Medications

Volkow N, Jones E, Einstein E, Wargo E. Prevention and treatment of opioid misuse and addiction: A review. *JAMA Psychiatry.* 2019;76(2):208-216.

Connery HS. Medication-assisted treatment of opioid use disorder: Review of the evidence and future directions. *Harvard Review of Psychiatry*. 2015;23(2):63-75.

Burns L, Gisev N, Larney S, et al. A longitudinal comparison of retention in buprenorphine and methadone treatment for opioid dependence in New South Wales, Australia. Addiction. 2015;110(4):646-655.

Yarborough B, Stumbo S, McCarty D, Mertens J, Weisner C, Green C. Methadone, buprenorphine and preferences for opioid agonist treatment: A qualitative analysis. Drug Alcohol Depend. 2016;160:112-118.

Jarvis B, Holtyn A, Berry M, et al. Predictors of induction onto extended-release naltrexone among unemployed heroin-dependent adults. Journal of Substance Abuse Treatment. 2018;85:38-44.

Mojtabai R, Mauro C, Wall M, Barry C, Olfson M. Medication treatment for opioid use disorders in substance use treatment facilities. Health Affairs. 2019;38(1):14-23.

#### Slide - MAT Availability and Utilization

Mojtabai R, Mauro C, Wall M, Barry C, Olfson M. Medication treatment for opioid use disorders in substance use treatment facilities. *Health Affairs*. 2019;38(1):14-23.

Volkow N, Frieden T, Hyde P, Cha S. Medication-assisted therapies - Tackling the opioid-overdose epidemic. New England Journal of Medicine. 2014;370:2063-2066.

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Rosenblatt RA, Andrilla HA, et al. (2015). Geographic and specialty distribution of US physicians trained to treat opioid use disorder. *Annals of Family Medicine*, 13(1):23-26.

#### Slide - Medicaid Expansions under the ACA

Henry J. Kaiser Family Foundation. (2019). *Status of State Action on the Medicaid Expansion Decision*. State Health Facts. Medicaid and Health Reform. <a href="https://www.kff.org/health-reform/state-indicator/state-activity-around-expanding-medicaid-under-the-affordable-care-act/?activeTab=map&currentTimeframe=0&selectedDistributions=status-of-medicaid-expansion-decision&sortModel=%7B%22colld%22:%22Location%22,%22sort%22:%22asc%22%7D

#### <u>Slide – Substance Abuse and Mental Health Parity</u>

Douglas M, Wrenn G, Bent-Weber S, Tonti L, et al. (2018). *Evaluating State Mental Health and Addiction Parity Statutes: A Technical Report.* Kennedy-Satcher Center for Mental Health Equity at Morehouse School of Medicine. The Kennedy Forum.

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