Impact of Medicaid expansion on access to medication for opioid use disorder (MOUD) among people experiencing homelessness who use opioids

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We declare no conflicts of interest.

Acknowledgments
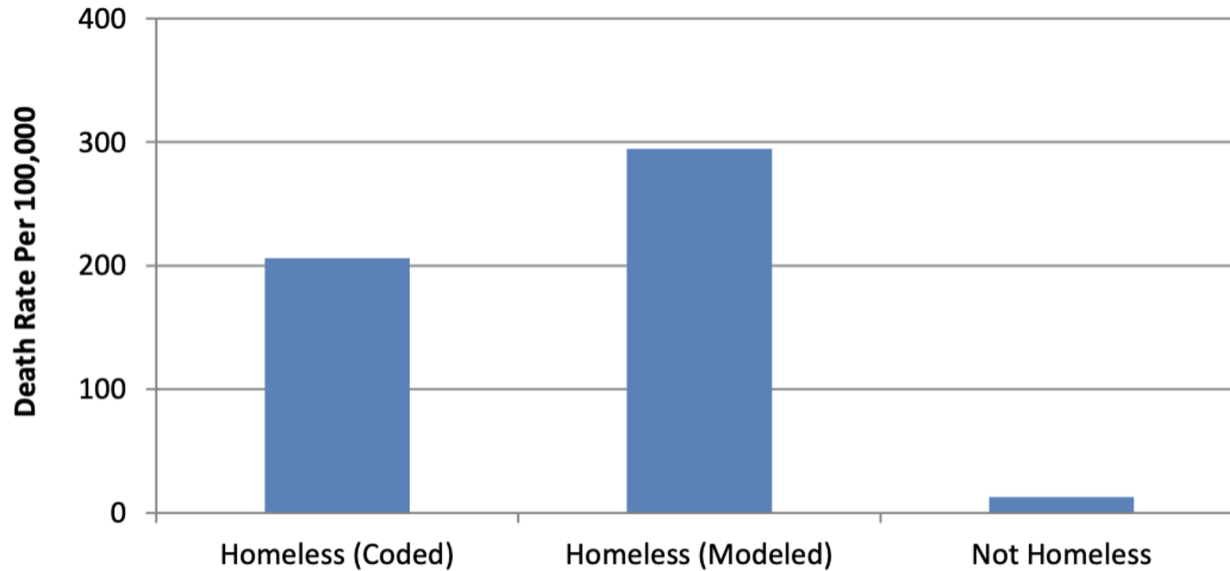
Background: Opioid death rate is 16-30 times higher for people experiencing homelessness

Source: MA DPH (2017)

Background: Zur and Mojtabai (2013) made a prediction based on Medicaid expansion in MA in 1997
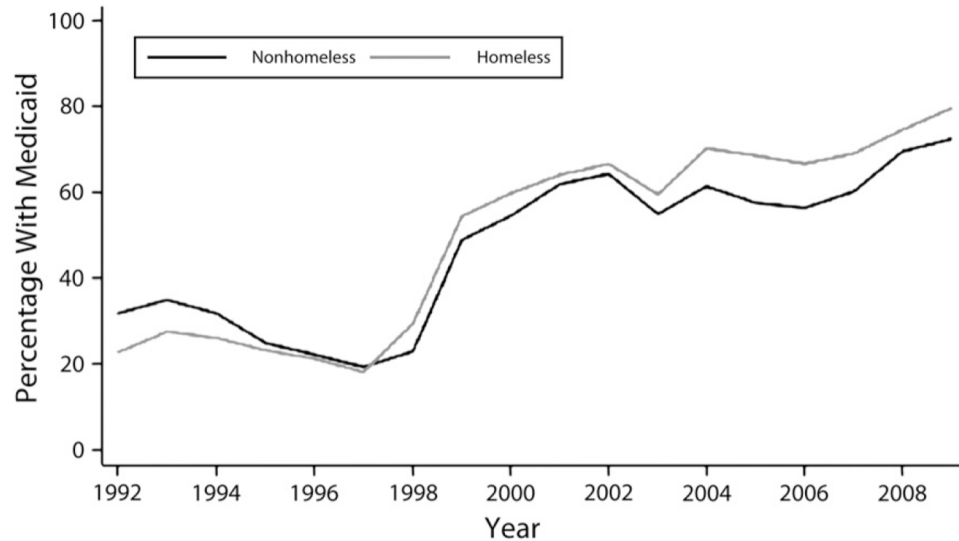

FIGURE 2—Trends in Medicaid enrollment among homeless and housed adults entering substance use disorder treatment programs in Massachusetts before and after implementation of MassHealth program in 1997: Treatment Episode Data Set, 1992–2009.

Source: Zur and Mojtabai (American Journal of Public Health 2013)

Research questions

- Did Medicaid expansion increase inclusion of MOUD in treatment plans at substance use treatment centers?

- Was there a differential effect from expansion on MOUD inclusion if clients were experiencing homelessness?

Data source:
Treatment Episodes Data Set - Admissions (TEDS-A)

- Administered by SAMHSA

- Consists of admissions to treatment centers that receive public funding

- Includes key housing status variable

LIVARAG: Living arrangements at admission

Identifies whether the client is homeless, a dependent (living with parents or in a supervised setting), or living independently on his or her own at the time of admission.

• Homeless: Clients with no fixed address; includes shelters.
• Dependent living: Clients living in a supervised setting, such as a residential institution, halfway house, or group home; and children (under age 18) living with parents, relatives, or guardians, or in foster care.
• Independent living: Clients living alone or with others without supervision. Includes adult children (age 18 and over) living with parents.

Value	Label	Frequency	%
1	Homeless	4,337,362	12.2%
2	Dependent living	6,988,247	19.7%
3	Independent living	20,568,848	57.9%
-9	Missing/unknown/not collected/invalid	3,606,553	10.2%
	Total	35,501,010	100%

Source: TEDS-A 2000-2017 Codebook

Data source: Inclusion criteria for admissions
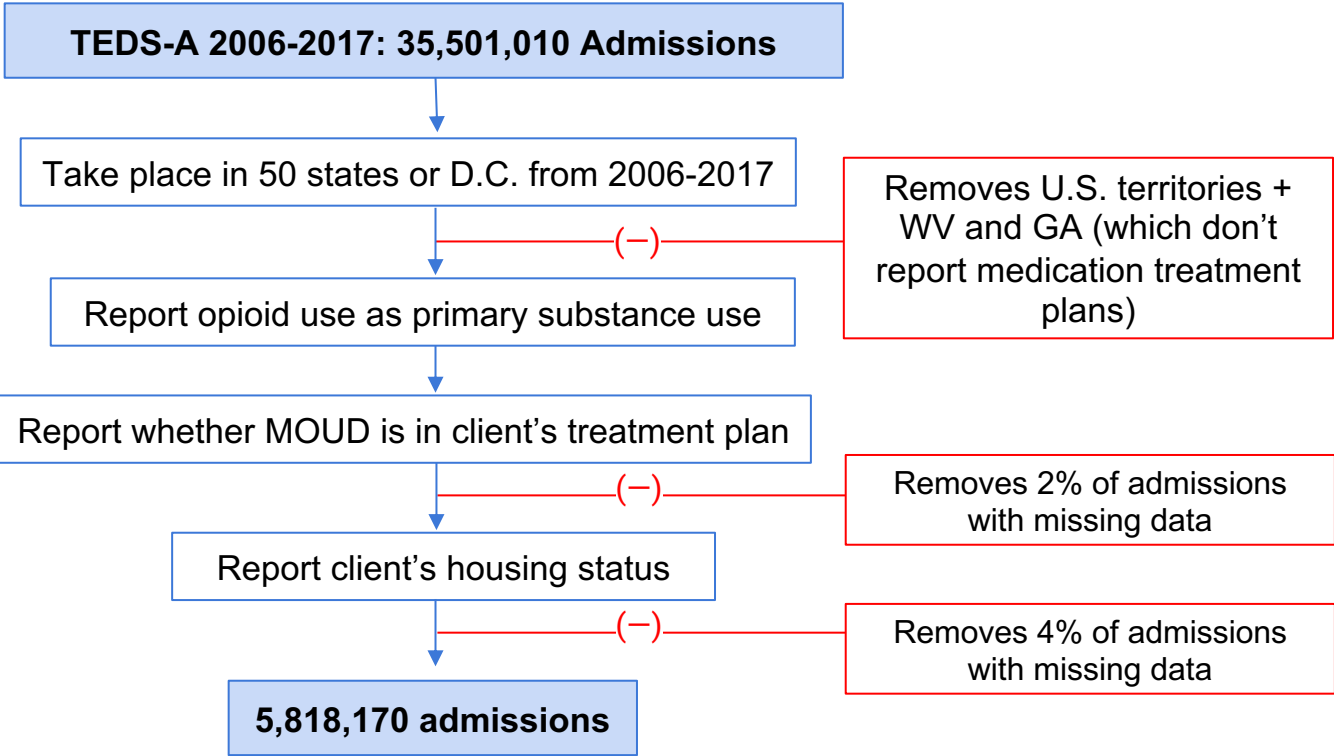
Study design

Primary outcome variable: MOUD-inclusive treatment plan
- Buprenorphine, methadone, naltrexone

Difference-in-differences design:
- Compared differences in MOUD inclusion by expansion status, housing status, and treatment setting

Controls:
- Clinical need (age, heroin use, frequency of use, IV use, secondary alcohol or benzodiazepine use)
- Criminal justice referrals
- Sociodemographic variables (race, gender, education, employment status)
- Year + state fixed effects

Pre-existing trends don't explain post-expansion differences

MOUD inclusion over time
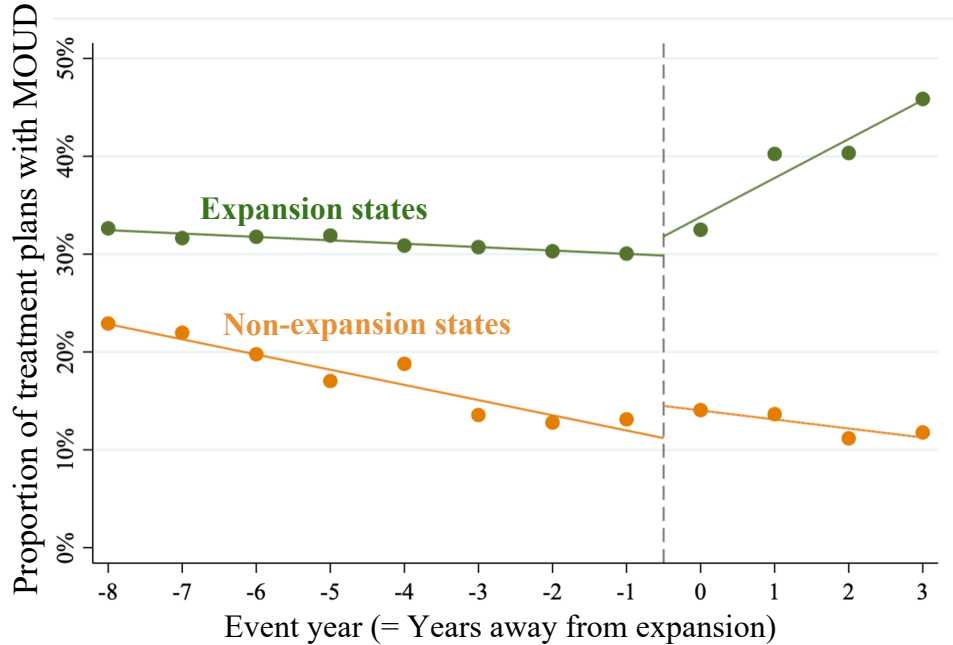
Baseline characteristics

	Non-Expansion State (n = 5,022,404) Mean	Expansion State (n = 795,766) Mean
Proportion of clients experiencing homelessness	9.0%	13.3%

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Baseline characteristics

	Non-Expansion State (n = 5,022,404) Mean	Expansion State (n = 795,766) Mean
Proportion of clients experiencing homelessness	9.0%	13.3%
Pre-2014: Proportion of admissions for housed clients that included MOUD	17.3%	33.9%
Pre-2014: Proportion of admissions for homeless clients that included MOUD	7.7%	16.4%

MOUD inclusion increased in expansion states...
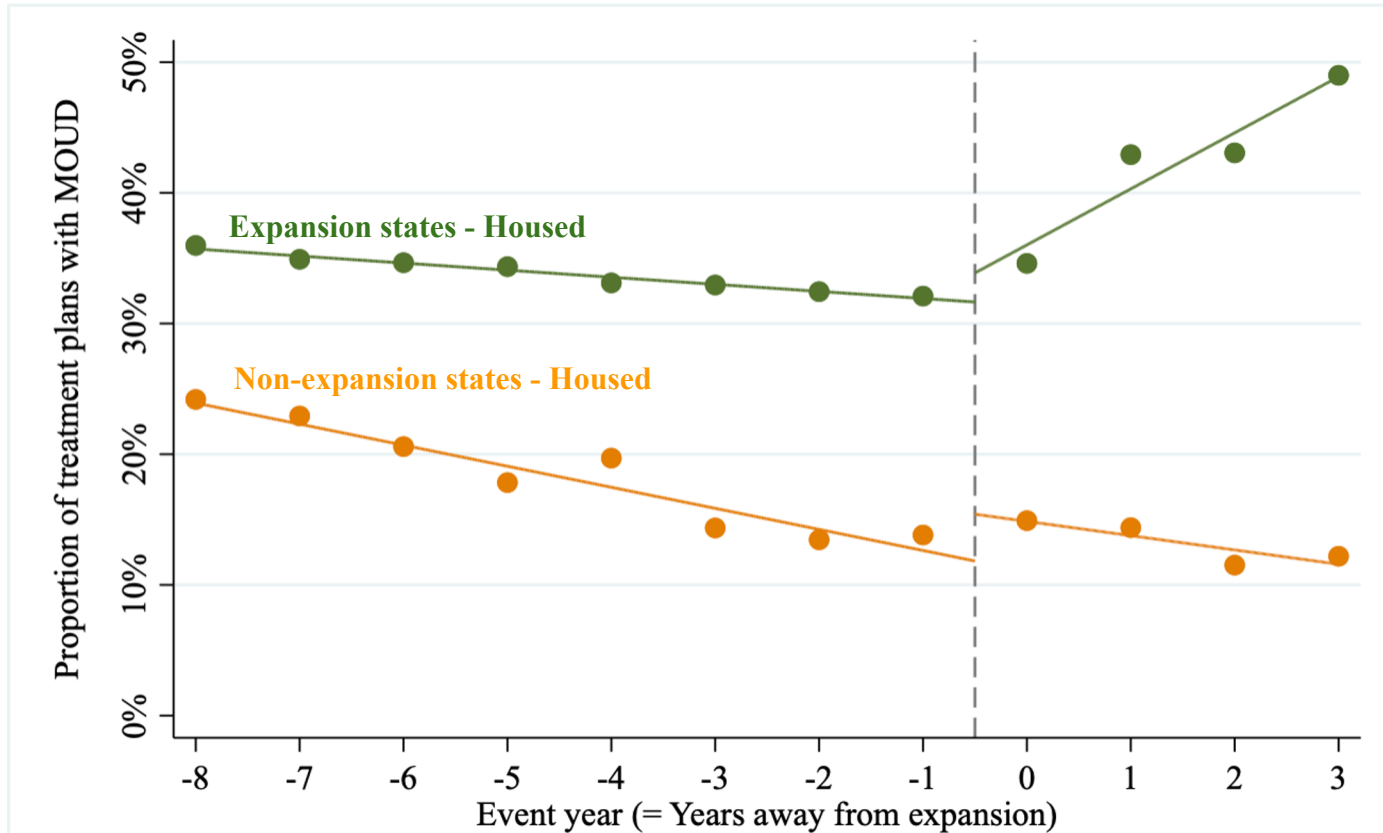
# MOUD inclusion increased in expansion states… including for homeless clients
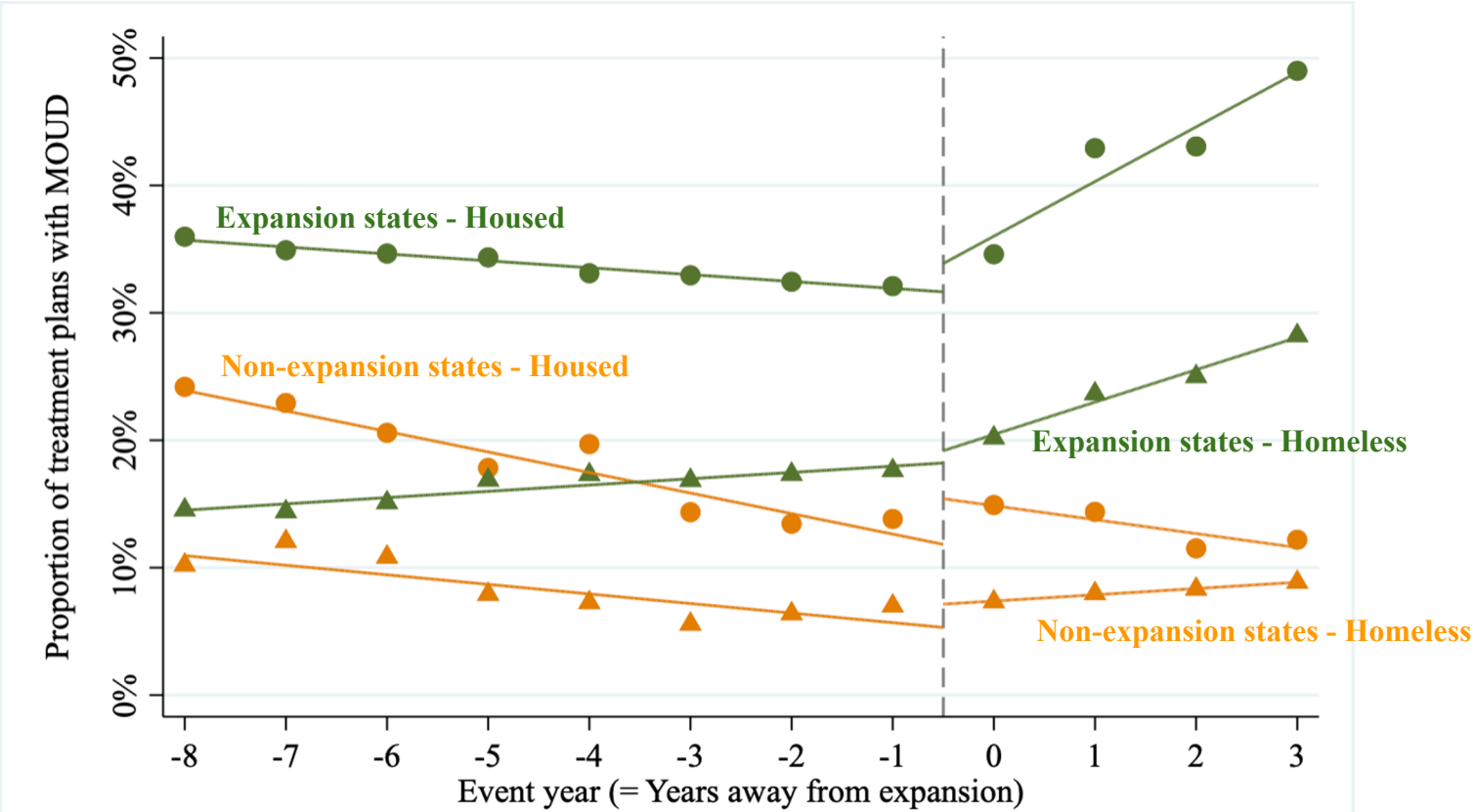
Expansion increased access across housing status, without narrowing the pre-existing disparity
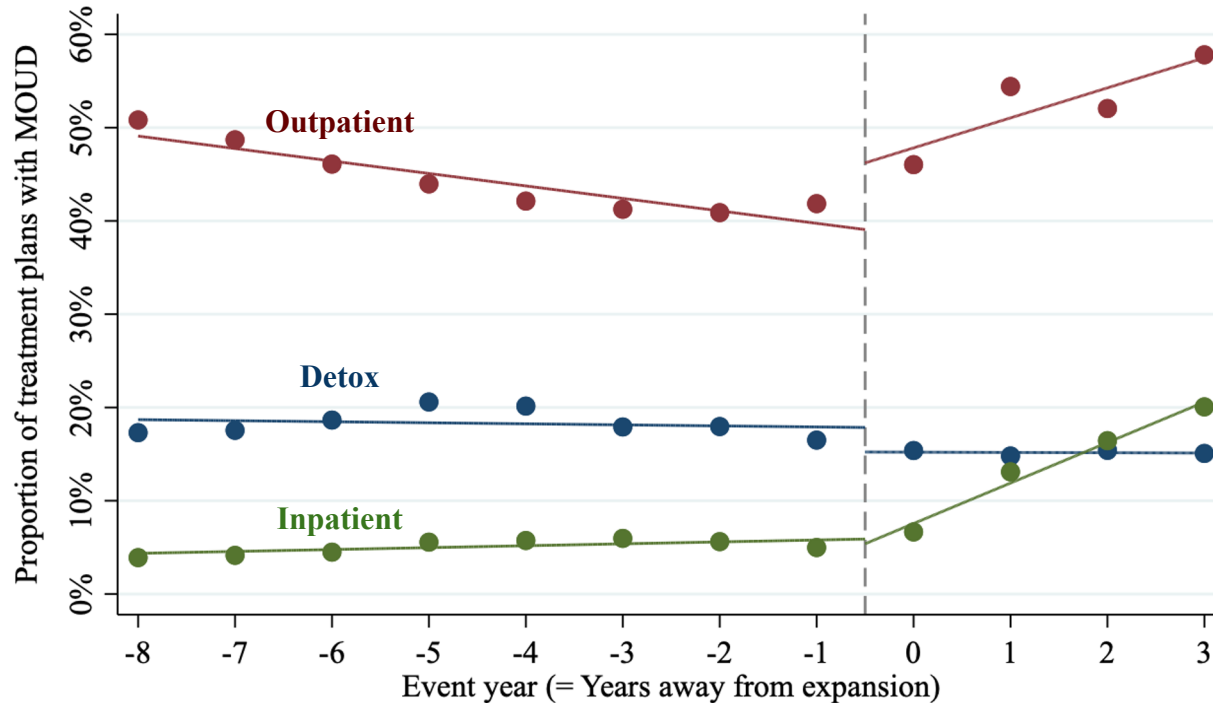
	Effect on rate of MOUD inclusion	
	Effect	[95% CI]
Homeless housing status (across all years)	- 12.0%**	[-17.6%, -6.4%]
Expansion for housed clients	+ 9.8%**	[2.5%, 17.0%]
Differential effect of expansion for homeless clients	- 2.0%	[-7.2%, 3.2%]

** Significant at a 95% confidence level

MOUD inclusion over time, by treatment setting
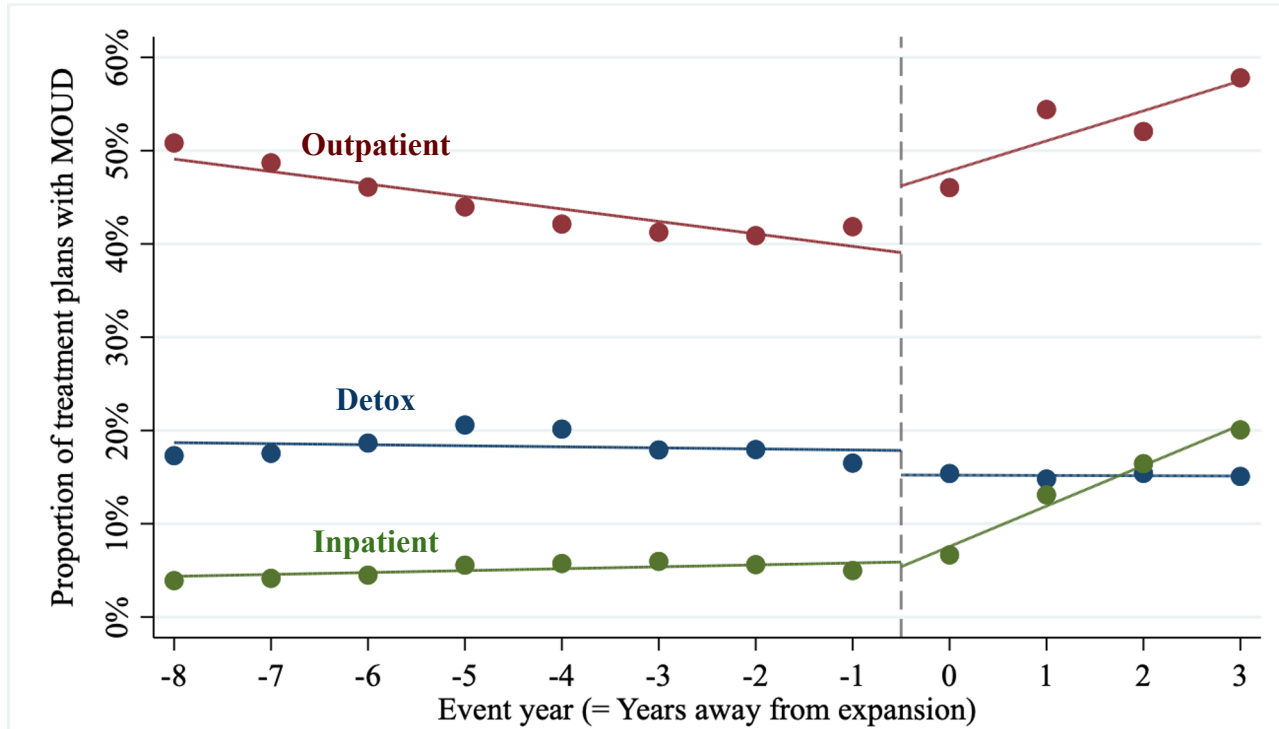
# MOUD inclusion over time, by treatment setting

**Effect of outpatient admissions
(across all time points):**
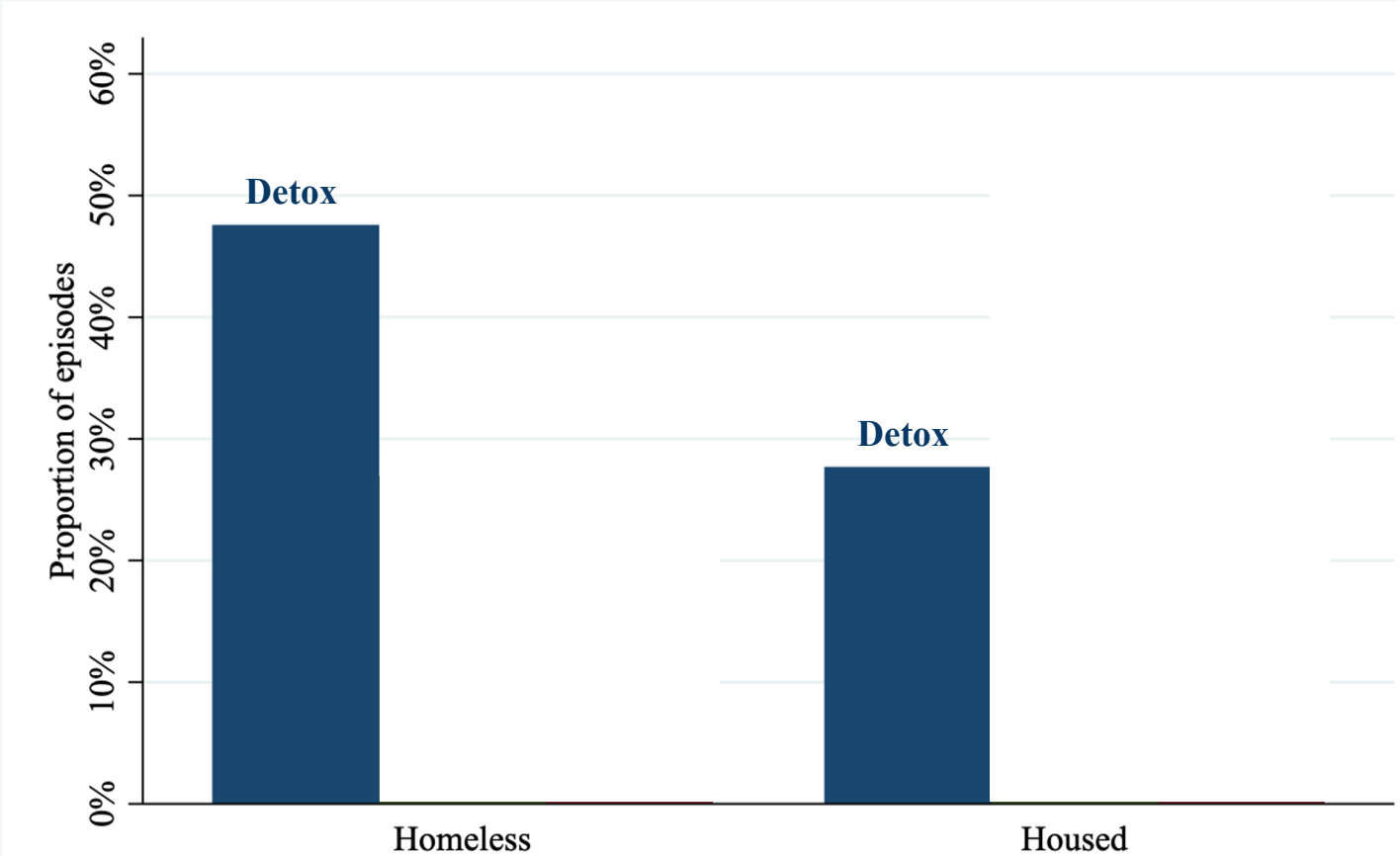25.9 (95% CI, 15.8 to 35.9) percentage points more likely to include MOUD

**Effect of Medicaid expansion
in outpatient settings:**
12.6 (95% CI, 3.4 to 21.8) percentage point increase in MOUD inclusion

**Effect of Medicaid expansion
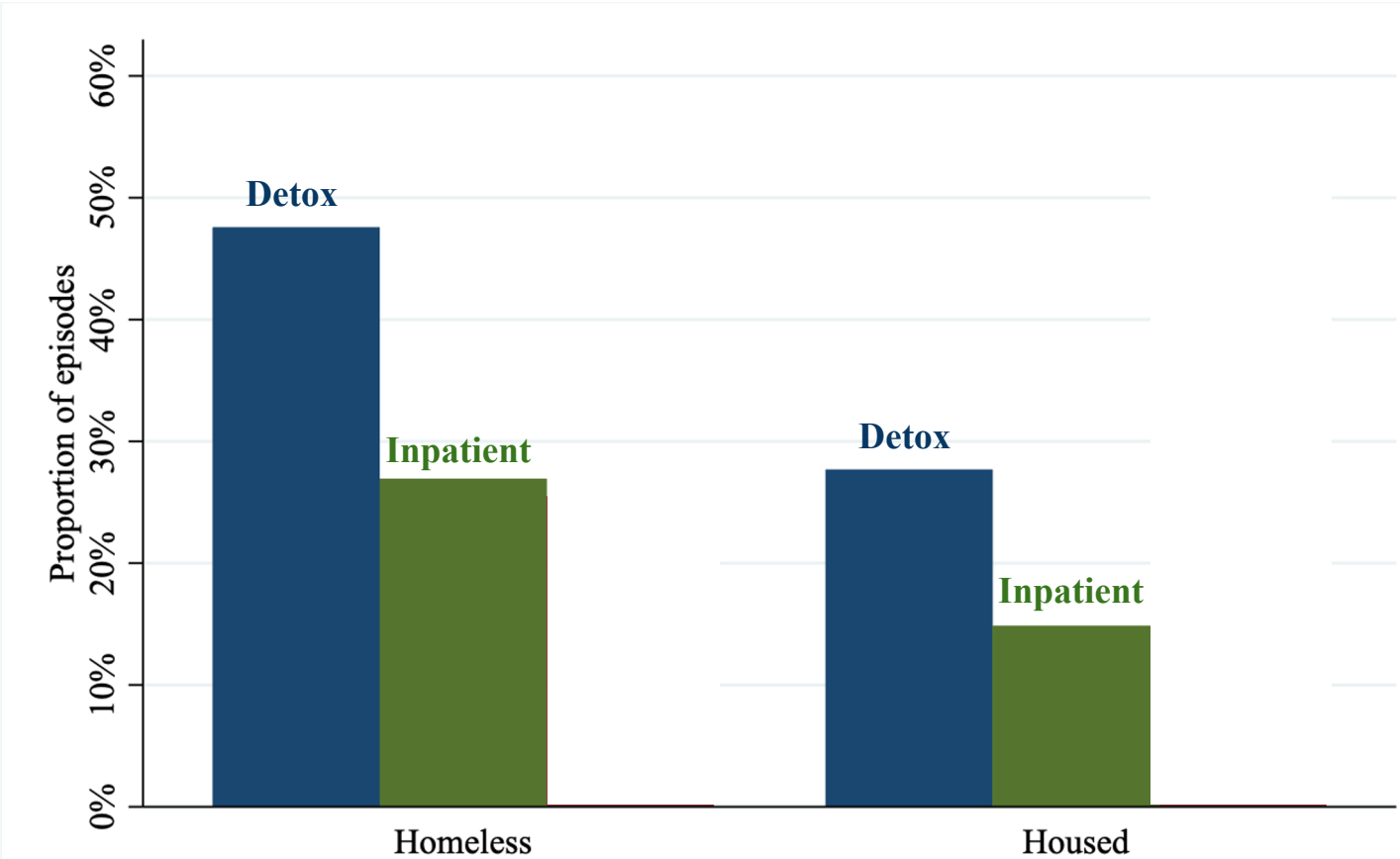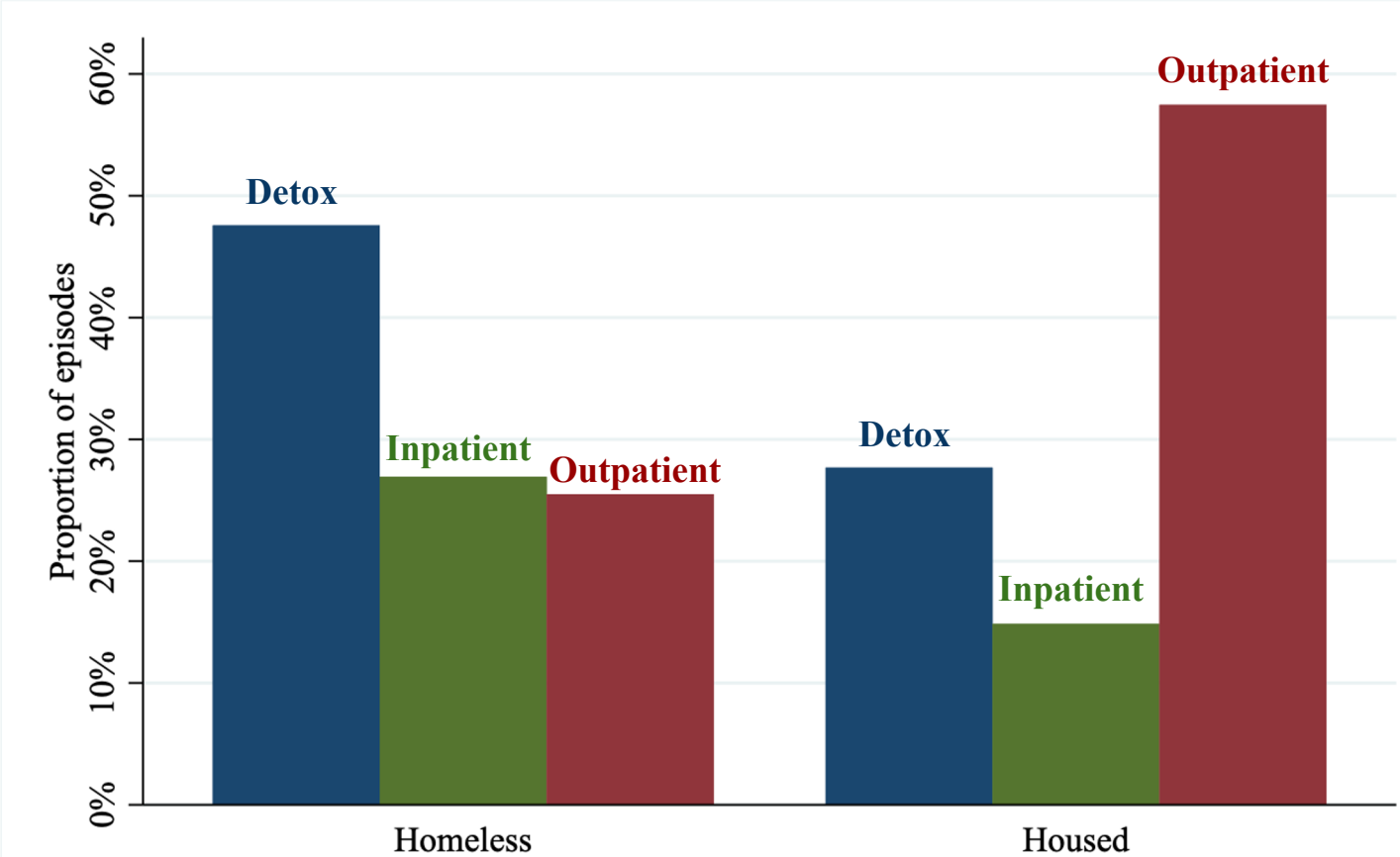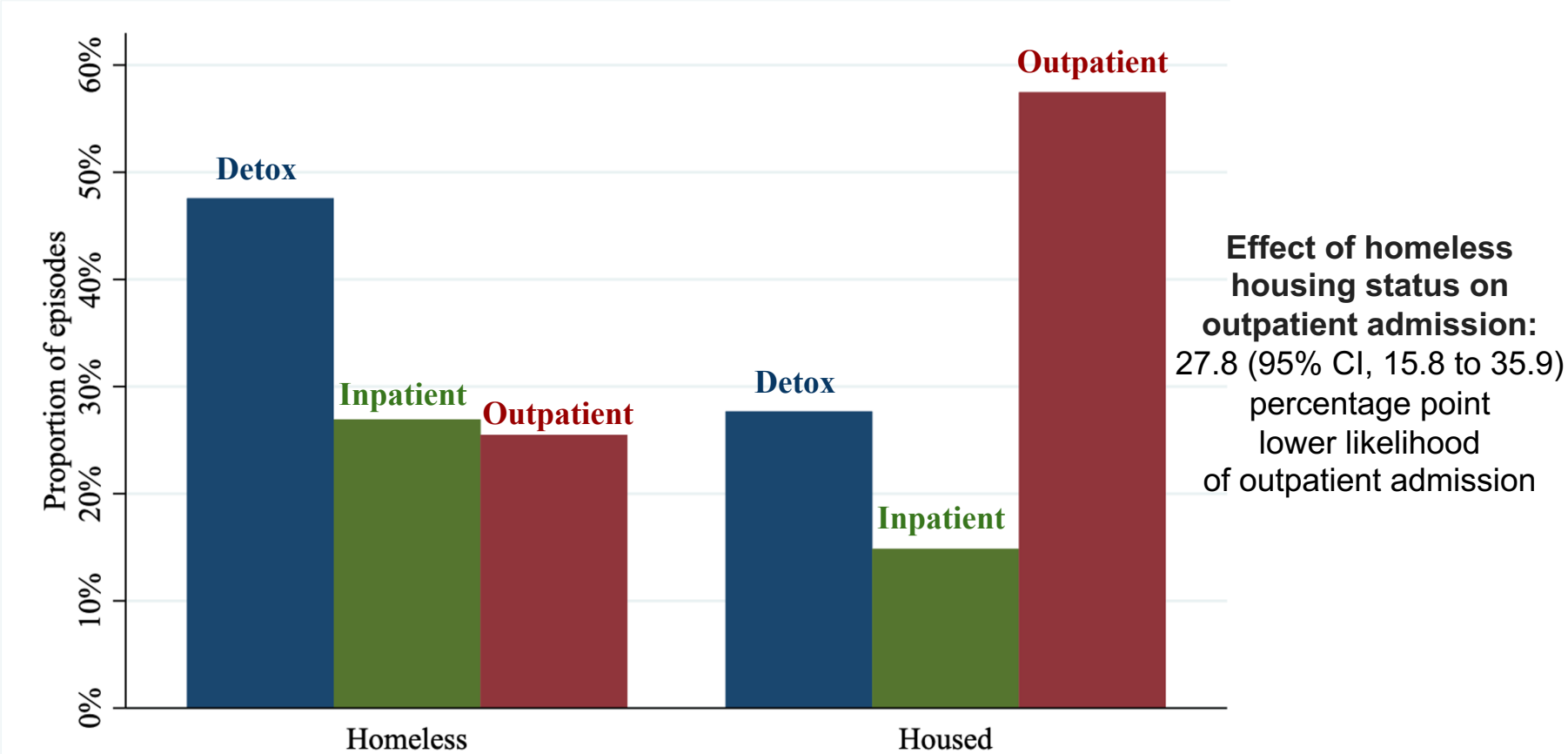in inpatient settings not statistically significant.**

Homeless clients tend not to access care in outpatient settings
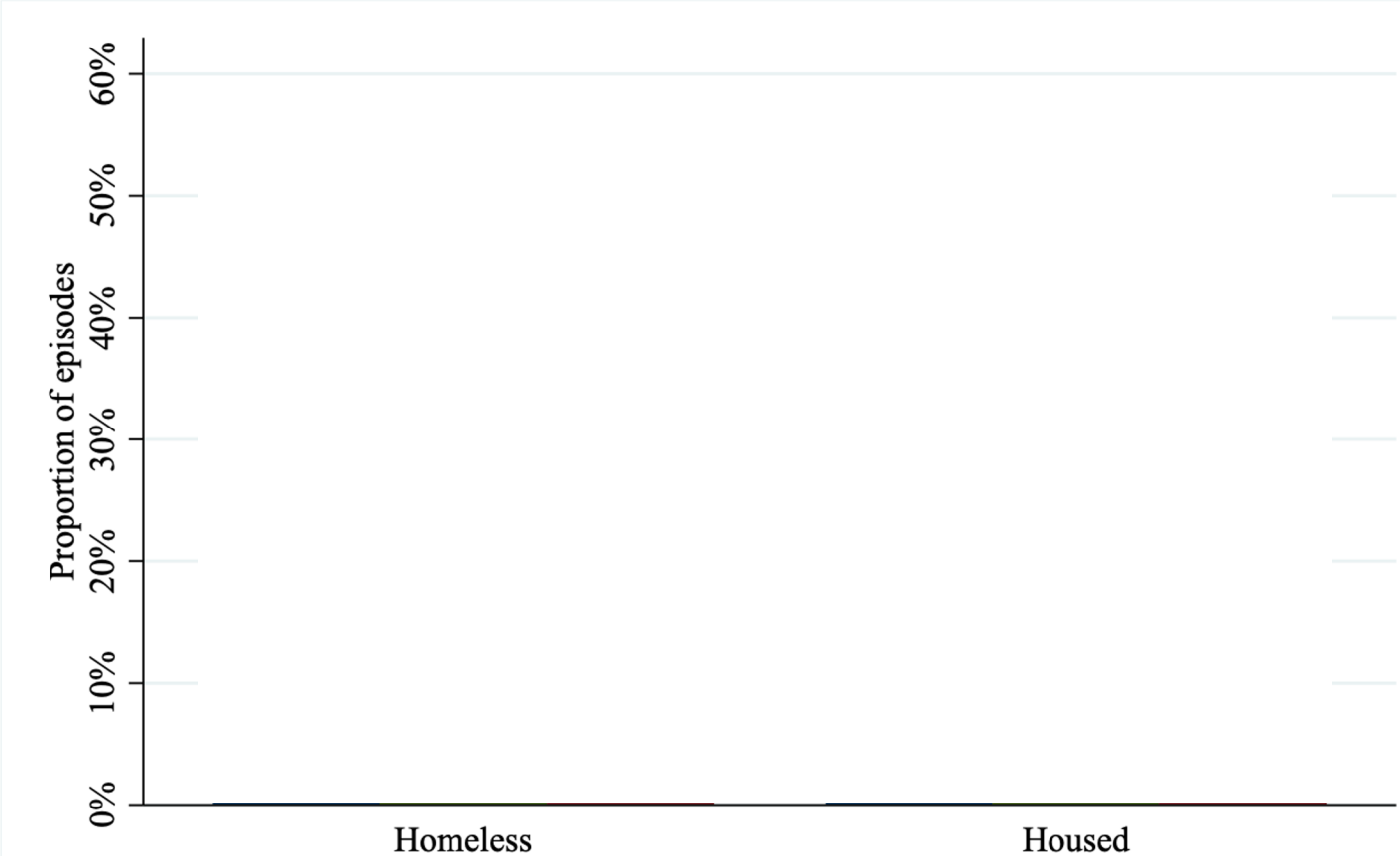
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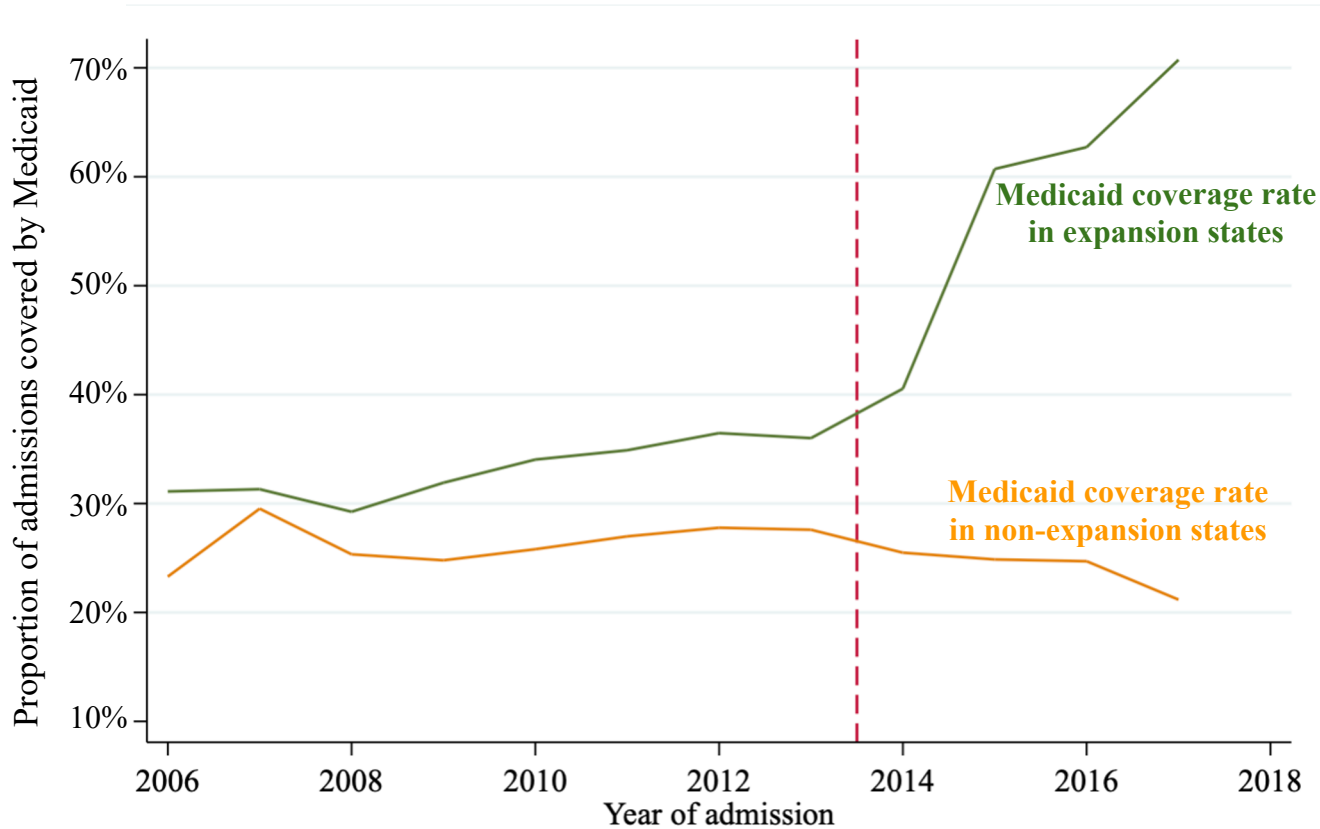
Homeless clients tend not to access care in outpatient settings

Effect of homeless housing status on outpatient admission: 27.8 (95% CI, 15.8 to 35.9) percentage point lower likelihood of outpatient admission

Medicaid coverage rates climbed in expansion states
(2,257,294 admissions in 14 expansion and 8 non-expansion states)

Medicaid coverage rate
in expansion states

Medicaid coverage rate
in non-expansion states

Proportion of admissions covered by Medicaid

Year of admission

Medicaid coverage rates climbed in expansion states
(2,257,294 admissions in 14 expansion and 8 non-expansion states)

Proportion of admissions covered by Medicaid

Medicaid coverage rate in expansion states

Medicaid coverage rate in non-expansion states

Year of admission

Effect of Medicaid expansion on proportion of admissions covered by Medicaid:
20.1 (95% CI, 4.7 to 35.4) percentage points increase

No statistically significant difference for homeless clients

Conclusions and implications

Expansion led to a big jump in MOUD inclusion.

+

Homeless clients saw this jump too, but pre-existing disparities persist.

+

Treatment setting shapes MOUD access for homeless clients.

Next steps for increasing MOUD access for PEH

- **Expand Medicaid in 12 more states**
- **Target treatment setting differences**