



Moving to Better Health Care? Estimating the Causal Impact of Medicaid Expansion on Homelessness

Ashutosh Kumar
Washington State University

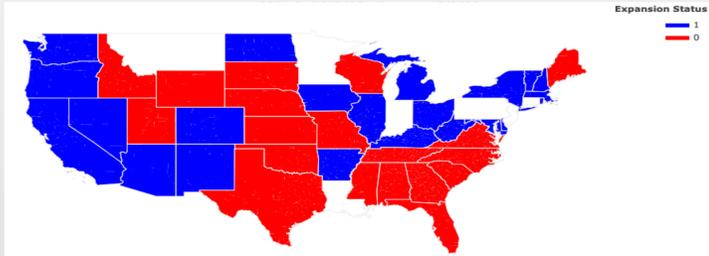


Abstract

Recent homelessness figures in the United States show a puzzling trend of aggregate decline but lopsided changes across states. This study examines the puzzle through healthcare access and provides the first causal evidence of the Medicaid expansion's impact on homeless adults' location. Using the state and county-level data on the homeless population from 2010-2017, the estimates from a difference-in-differences model show a significant 10.3 % post-expansion increase in homeless individuals per capita in states that adopted Medicaid expansion. Furthermore, utilizing the difference in homeless individuals' coverage status vis-a-vis homeless people in families, estimates from a triple difference (DDD) model also confirm the post-expansion increase in homelessness in expansion states. This study contributes further by uniquely utilizing county-level data to provide subsample analysis on metropolitan counties and counties located at state borders. Results from the state, county, and border-county-discontinuity design reveal the evidence of homeless individuals' migration from non-expansion to expansion states. Two mechanisms explain the migration process: post-expansion coverage eligibility of previously uninsured homeless individuals and the increased ability of homeless service providers in expansion states in offering healthcare and housing-related services. This paper concludes by measuring the state spending on Medicaid to demonstrate the implications of these findings on state welfare policymaking and fiscal expenditure.

Introduction

- Medicaid expansion, adopted by 22 states and declined by 19 states in 2014 (shown in figure below), led to cross-sectional variation of Medicaid benefits.



- Expansion provided coverage to ALL low-income, non-elderly adults earning below 138% of the Federal Poverty Line (FPL), including homeless – regardless of health conditions.
- Two mechanisms directly benefitted homeless individuals in expansion states but not in non-expansion states - 1) direct access to coverage, and 2) three specific provisions introduced by ACA 2014 that enhanced capacity of homeless service providers, i.e. Community 1st Choice-1915(k) and Health Homes offering range of services related to healthcare, and Center for Innovations RFPs that gave states freedom to target beneficiaries.
- Healthcare for Homeless (HCH) reported 22 percentage points increase in insured homeless clients in expansion states.

Data and Empirical Design

RESEARCH QUESTION

Did Medicaid expansion lead to migration of previously uninsured homeless individuals from non-expansion to expansion states?

DATA:

US Department of Housing and Urban Development (HUD) conducts Point-in-Time (PIT) homeless count in last week of January every year for all states since 2009. Suspected undercount – but identifies correct homelessness trend
Covariates are obtained from ACS, American Bankruptcy Institute, US Census, and AHY (2020)

EMPIRICAL DESIGNS:

(1) **Difference in Differences (DD):** $Y_{st} = \gamma_s + \lambda_t + \beta * Post_t * Treat_s + \delta * X_{st} + e_{st}$

Y_{st} : Log of No. of Homeless Individuals (HI) Per Capita in State s at Time t

X_{st} : State-level controls such as weather, median gross rent as percentage of income, poverty & unemployment rate, Ch 7 bankruptcy filed, and in-state general migration; γ_s, λ_t : State and Year Fixed Effects;

$Post_t * Treat_s$: Treatment indicator, 1 for expansion state post 2014; β : Parameter of Interest (DD Coefficient)

(2) **Difference-in-Difference-in-Differences (DDD):** $Y_{ist} = \beta_1 * Post_t * Treat_s + \beta_2 * Post_t * Childless_i + \beta_3 * Treat_s * Childless_i + \beta_4 * Post_t * Treat_s * Childless_i + \delta * X_{st} + Childless_i + \gamma_s + \lambda_t + e_{st}$

Using Homeless People in Families as Placebo: $Childless_i$ is indicator variable taking 1 for count of homeless individuals, 0 for count of homeless people in families; β_4 : Parameter of Interest; Rest specification is same as (1).

(3) **County-Level DD using Border Discontinuity Design:** $Y_{cpt} = \gamma_c + \lambda_t + \theta_{pt} + \beta * D_{cst} + \delta * X_{cpt} + e_{cpt}$
 p denotes the pair of counties across state borders, θ_{pt} is the county-pair and year interaction fixed effect. Rest of the specification remains the same as (1) except including county fixed effects γ_c and county level covariates, X_{cpt} . This design compares only corresponding border county in a pair with different expansion status, instead of all counties.

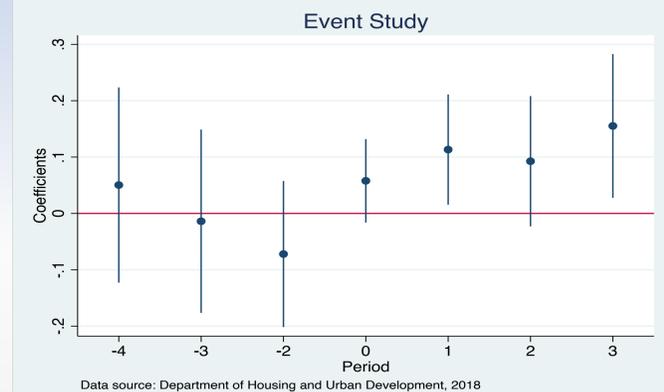
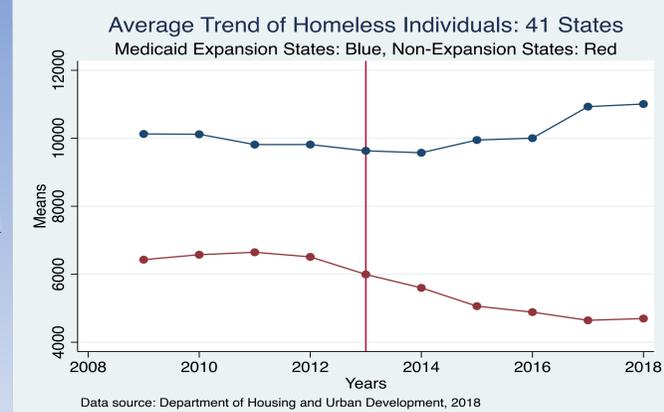
Main Results

	DD (State)	DDD (State)	DD (All County)	DD (Border County Pair-Same Exp. Status)	DD (Border County Pair-Different Exp. Status)
VARIABLES	Log HI Per Capita	Log HI Per Capita	Log HI Per Capita-Density	Log HI Per Capita-Density	Log HI Per Capita-Density
Expansion	0.103** (0.0457)	0.104* (0.0572)	0.0937** (0.0362)	0.0711 (0.0884)	0.138 (0.0726)*
Controls	Y	Y	Y	Y	Y
Fixed Effects	State & Year	State & Year	County & Year	County-Pair & Year	County-Pair x Year
Adjusted R ²	0.897	0.741	0.964	0.985	0.992
Observations	328	656	20,788	8,443	4,944

Note: All results are shown with standard errors clustered at state-level. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level. All results include 41 contiguous states that made one-off expansion decision in January 2014. Results are robust to inclusion of all states with different treatment time and multiple other specifications. Control variables include migration, bankruptcy filed, poverty rate, unemployment rate, median gross rent as percent of income, and weather. Validity of identification assumptions is tested for all results.



Identification



Concluding Remarks

RESULTS

- Expansion states experienced **10.3% increase** in newly eligible single homeless adults due to Medicaid expansion.
- Expansion states experienced **no significant change** in homeless people in families (placebo), who are more likely to be eligible for benefits regardless of state's expansion status.
- Border counties with different expansion status across state borders experienced a significantly **higher migration of homeless individuals per-capita-density by 7 percentage points** compared to border counties with same expansion status across border.
- Metropolitan counties experienced **only a trivial increase of 1 percentage points** compared to non-metropolitan counties.

POLICY IMPLICATIONS

- Additional expected \$1.7 million fiscal expenditure on state budget just for providing Medicaid to homeless
- State expenditure bound to increase due to progressively reducing federal funds for Medicaid.
- Likely overburdens healthcare and other infrastructure services in expansion states.
- Not a holistic solution of homelessness.