

Telehealth Use in Rural Medicaid: A Baseline Inventory

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Rural Telehealth Use: Prospects and Current Status

- Telehealth (TH) holds promise for increasing availability and quality of rural health services
- Limited evidence suggests low TH use in rural US
- Prospects for expansion improving as Medicaid reimbursement becomes more widespread

Establishing a Baseline

- Medicaid Analytic Extract (MAX)
 - Claims data with TH modifiers
 - Nationwide
 - Annual: available before and after recent policy shifts

Research Questions

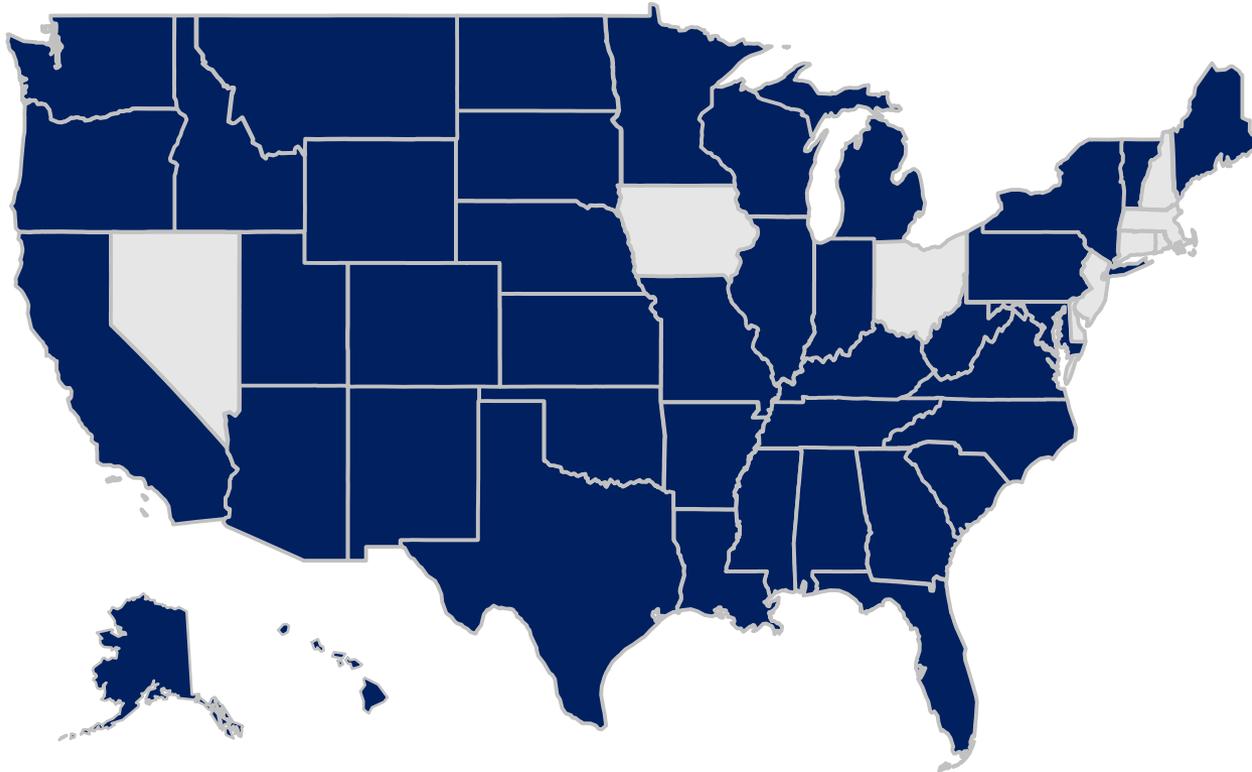
1. How **prevalent** was TH use among rural and urban Medicaid members?
2. What were the **characteristics** of TH users?
3. What **types of TH services** were provided?
4. What **diagnoses** were associated with TH use?
5. Did TH use rates differ depending on state TH **parity policy**?

Method

- **Data Source:** 2011 Medicaid Analytic Extract (MAX): 5% random sample, stratified by state
- **Population:** non-dual Medicaid members
- **Rurality Measure:** Rural-Urban Continuum Codes (RUCCs)
- **Identifying TH Claims:** selected claims with TH modifiers required by state Medicaid programs in 2011
- **Analyses:** one-way ANOVA, chi-square

Medicaid Reimbursement for Telehealth

■ = State Medicaid program reimbursed for TH in 2011



Map source: https://commons.wikimedia.org/wiki/File:US_states_by_HDI.svg

Data source: Hall L, LaMothe C, Reiser C. *50 State Medicaid Statute Survey*. Washington, DC: Center for Telehealth & e-Health Law; February 2011. Additional analysis of legislation was conducted by the authors for 12 states not included in the Center for Telehealth & e-Health Law document.

Telehealth Use by Residence

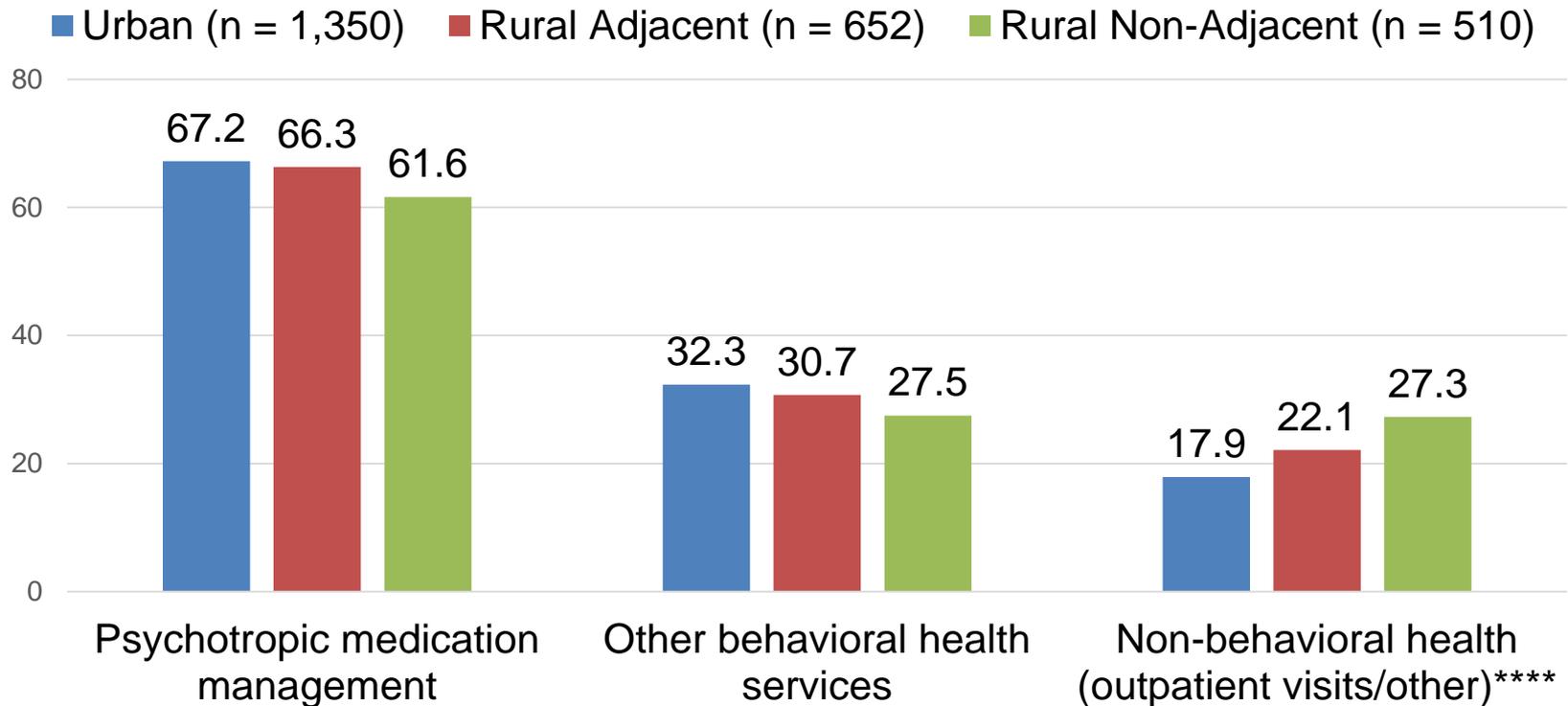
	Residence		
	Urban	Rural Adjacent	Rural Non-Adjacent
TH users per 100,000 beneficiaries****	60	240	340
TH claims per 100,000 beneficiaries++++	154	611	906
<p>Chi-square test of difference by beneficiary residence significant at *p <0.05, **p <0.01, ***p < 0.001, **** p < 0.0001</p> <p>ANOVA by beneficiary residence significant at +p <0.05, ++p <0.01, +++p <0.001, ++++p < 0.0001</p>			

Characteristics of Telehealth Users

- ***Total number of TH users:***
 - 2,512 in 5% sample
 - Estimated 50,240 in non-dual population
- ***Rural TH users more likely to be:***
 - White
 - Under age 19
 - In child or disabled Medicaid eligibility categories

Telehealth Use Rates by Type of Service and Residence

% of TH users receiving specified services

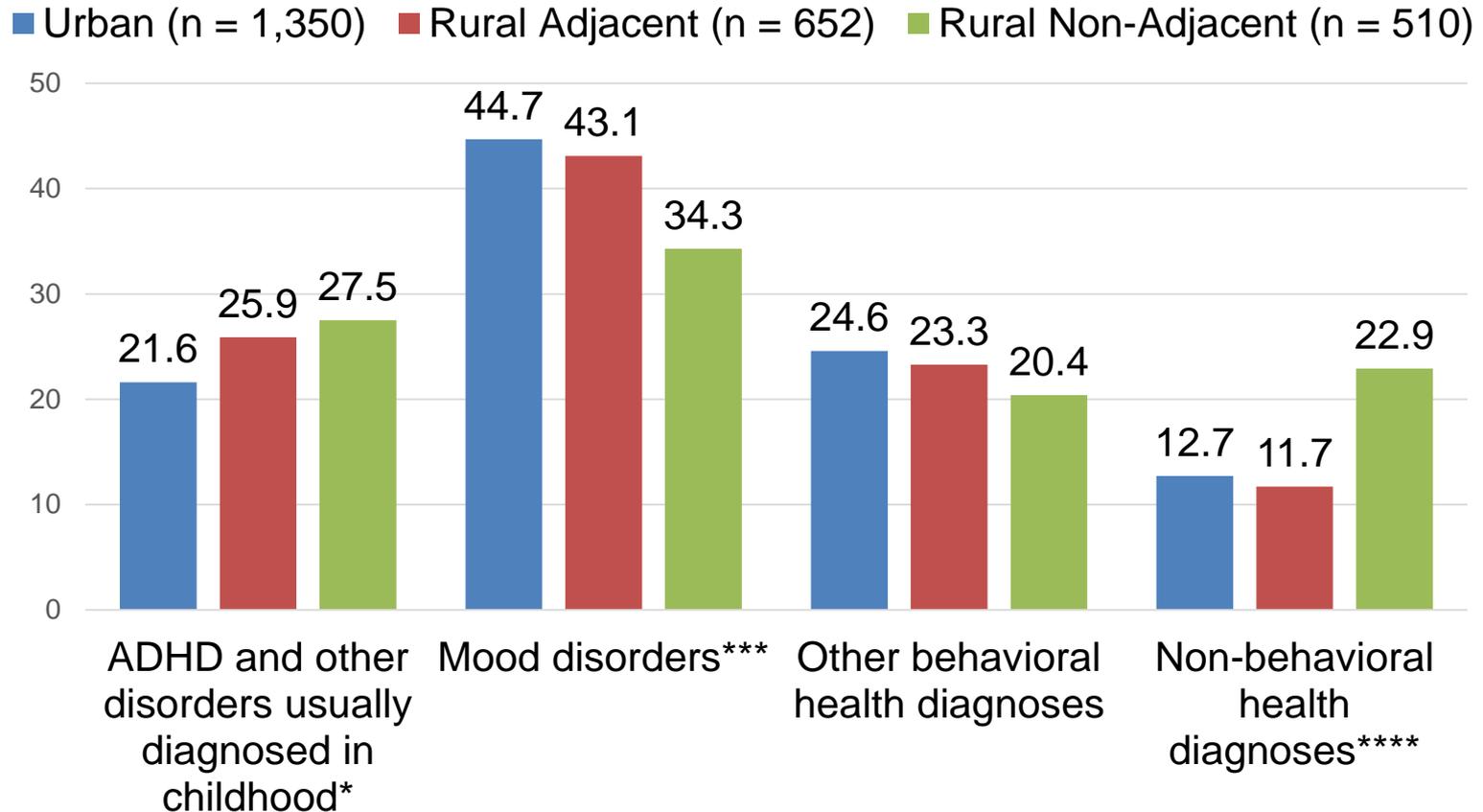


Data: Medicaid Analytic Extract (MAX), 2011.

Chi-square test of difference by beneficiary residence significant at *p < 0.05, **p < 0.01, ***p < 0.001, ****p < 0.0001.

Telehealth Diagnoses by Residence

% of TH users with diagnosis



Data: Medicaid Analytic Extract (MAX), 2011.

Chi-square test of difference by beneficiary residence significant at *p < 0.05, **p < 0.01, ***p < 0.001, ****p < 0.0001.

Impact of Telehealth Parity Laws on Rate of Rural Telehealth Use

- No statistically significant difference in TH use rates between rural Medicaid beneficiaries in states **with** TH parity laws and those in states **without** TH parity laws

Conclusions

- Rates of TH use were higher in rural than in urban subpopulations
- Absolute rates of rural TH use were low
- Behavioral health problems the most common target for TH services in rural and urban populations
- Rural TH users more likely than urban peers to access non-behavioral health services via TH

Limitations

- Dual eligibles excluded from analyses
- Likely undercounting of TH claims

Questions for Future Research

- Has rural TH use in Medicaid increased since 2011?
- What TH policies were associated with higher rural TH use rates in 2011?
- What TH policies were associated with faster expansion of TH use after 2011?
- Do distinctive patterns of rural TH use persist over time?
- Does TH expansion improve rural health access, quality, outcomes, and cost-effectiveness?

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