

# Gaps in Continuity of Care: Homelessness and Incarceration Among Medicaid Psychiatric Patients

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Annual Meeting of the American Public Health Association, November 10, 2010



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#### No relationships to disclose



## Acknowledgements

Supported by the American Psychiatric Foundation through a consortium of industry supporters, including Astra Zeneca, Bristol Myers Squibb, Eli Lilly, Forest, Janssen, Pfizer, Sanofi-Aventis, and Wyeth. The investigators had complete discretion and control over the study design, conduct, and data analyses.

The authors would like to thank Ms. Lisa Countis for her invaluable assistance in fielding the main study and in developing this presentation.



### **Research Objectives**



- Assess rates of homelessness and incarceration among Medicaid psychiatric patients.
- Examine sociodemographic and clinical risk.
- Identify potential gaps in continuity of care for homelessness and incarceration among Medicaid psychiatric patients.



## Background

- Relationships between homelessness and mental illness, and incarceration and mental illness have been well established in the literature.
- Previous findings are largely based on studies of homeless or incarcerated populations.
- There are currently no systematic, clinical data rigorously characterizing psychiatric patients who are, or may become, homeless or incarcerated.



### Methods

APIRE Ten State Medicaid Study, 2006 Source: Physician-reported, clinically-detailed data using practice Design: based research methods Randomly selected psychiatrists from 10 targeted states Sample: using the AMA Masterfile **Eligibility:** Treat Medicaid patients in last typical workweek 61% (N=2,968) total; 34% (N=857) eligible Response: Reports on 1,625 systematically-selected Medicaid patients Data: Weighted frequencies; logistic regression models to Analyses: estimate odds of homelessness and incarceration, accounting for sociodemographic and clinical

characteristics



## **Primary Study Measures**

### Homelessness

Since January 1, 2006, has this patient been homeless for more than 48 hours?

#### *Incarceration*

Since January 1, 2006, has this patient been detained or incarcerated in jail or prison?



Overall Rates of Homelessness and Incarceration among Medicaid Psychiatric Patients (N=1,625;  $\clubsuit = OR$  Range)





Overall Rates of Homelessness, Incarceration, and Both among Medicaid Psychiatric Patients in 10 States (N = 1,625)





#### Sociodemographic Characteristics

	% Homeless (N=194)	% Incarcerated (N=200)	% Both (N=86)
Total (N=1,625)	11.6	13.4	5.6
Male	14.8 ***	18.9 ***	7.1 *
Female	8.7	8.1	4.2
White	9.9	9.0	3.6
Non-white	13.5 *	18.3 ***	7.9***
< 18	1.1	9.7	0.3
18-30	23.8 ***	21.1 ***	14.1***
31-40	17.1	14.8	6.6
41-64	12.8	13.4	6.4
* p<.05 ** p<.01 *** p<	.001		



### Psychiatric Diagnoses

	% Homeless	% Incarcerated	% Both
	(N=194)	(N=200)	(N=86)
Total (N=1,625)	11.6	13.4	5.6
Drug use d/o	42.6***	38.3***	21.6***
Alcohol use d/o	36.2***	25.3**	14.4***
Schizophrenia	24.0***	22.0***	12.3***
Bipolar d/o	9.4	14.6	4.0
Depression	5.8***	7.4***	3.7*
Anxiety d/o	5.7**	3.9***	1.8**
> 1 d/o	23.7	29.3*	10.7

\* p<.05 \*\* p<.01 \*\*\* p<.001



### Severe Symptom Levels

	% Homeless	% Incarcerated	% Both
	(N=194)	(N=200)	(N=86)
Total (N=1,625)	11.6	13.4	5.6
Substance use	64.0***	37.4***	30.6***
Psychotic	33.0***	24.3***	14.7***
Manic	28.0***	23.1*	15.7***
Depression	17.0*	8.6*	3.8
Anxiety	16.8*	14.4	9.0*
Sleep disturbance	16.2*	19.2**	11.3***
General medical	13.0	15.2*	6.2

\* p<.05 \*\* p<.01 \*\*\* p<.001



### Treatment Setting

	% Homeless	% Incarcerated	% Both
	(N=194)	(N=200)	(N=86)
Total (N=1,625)	11.6	13.4	5.6
Public inpatient	34.1 ***	33.6 ***	17.8 ***
Private inpatient	31.1 ***	10.1 ***	5.4
Public outpatient	11.2 ***	15.0 ***	6.5
Private outpatient	4.3	5.8	1.5
Nursing home	12.6	24.2 ***	8.1



\*\*\*p<.001

#### Treatment Access Problems

	% Homeless (N=194)	% Incarcerated (N=200)	% Both (N=86)
Total (N=1,625)	11.6	13.4	5.6
Problems with copayments	21.0*	20.1	14.1
Medication discontinued/ stopped for non-clinical reasons	18.2	19.9	13.7**
Clinically indicated medication not covered	on 12.1	15.0	8.5



\* p<.05 \*\* p<.01

#### Adverse Events

	% Homeless (N=194)	% Incarcerated (N=200)	% Both (N=86)
Total (N=1,625)	11.6	13.4	5.6
Increase in suicidality	29.5 ***	21.0 ***	13.2 ***
Increase in violent ideation behavior	n/ 21.3 ***	32.3 ***	14.0 ***
ED visit	24.3 ***	22.1 ***	12.5 ***
Psychiatric hospitalization	26.9 ***	22.6 ***	13.8 ***

\*\*\* All associations significant at p<.001



#### Odds of Homelessness and Incarceration

	Homelessness OR	Incarceration OR	Both OR
Male		1.9***	2.0*
Non-white	1.5*	1.5*	
Substance use disorder		3.1**	7.2**
Severe substance use sx	2.9***	2.7**	3.4**
Suicidality	1.6*		
Violent ideation or behavior		2.9***	2.3*
ED visit	2.1**	2.4***	2.8*
Problems with copayments	1.7*		
Rx discontinuation			2.4**
Tx in public outpatient setting	2.8***	2.0**	5.3**
Tx in public inpatient setting	5.9***	2.2*	6.1**
Tx in private inpatient setting	3.9***		
Tx in nursing home	3.8***	2.8**	
OR = Odds Ratio * p<.05 ** p<	.01 *** p<.001		FOR RESEARCH AND EDUCATION

# **Summary of Key Findings**

- Rates of homelessness or incarceration were high among Medicaid psychiatric patients.
- Rates were higher among male, non-white, and younger adult patients.
- The highest rates of homelessness and incarceration occurred among patients with schizophrenia, substance use disorders, severe psychiatric symptoms, and more than one diagnosis.



# **Summary of Key Findings**

- The cumulative burden on states is non-trivial: nearly 1 in 5
  Medicaid patients experienced homelessness, incarceration, or both.
- One-third of public inpatients experienced homelessness or incarceration.
- One-third of private inpatients experienced homelessness.
- Homeless or incarcerated patients were significantly more likely to be seen in the emergency department.
- Discontinuation of clinically indicated medications for non-clinical reasons increased the odds of both homelessness and incarceration.



## **Implications for Policy, Practice, or Delivery**

- There appear to be important gaps in the mental health treatment infrastructure for patients with substance use, psychotic disorders, and psychiatric symptom exacerbation.
- Appropriate discharge planning and care coordination by inpatient facilities, emergency departments, and the criminal justice system can potentially prevent homelessness and incarceration in high risk Medicaid psychiatric patients.
- Special attention should be focused on more effective models of care engagement, including housing, 24-hour crisis intervention care, substance use treatment programs, and pharmacologic treatment access and management.



## Conclusion

There are vulnerable sub-groups of Medicaid psychiatric patients who have fallen through states' mental health and social services systems. These patients appear to be at considerable risk for homelessness and incarceration and warrant increased attention.



Thank you!

# Questions?

