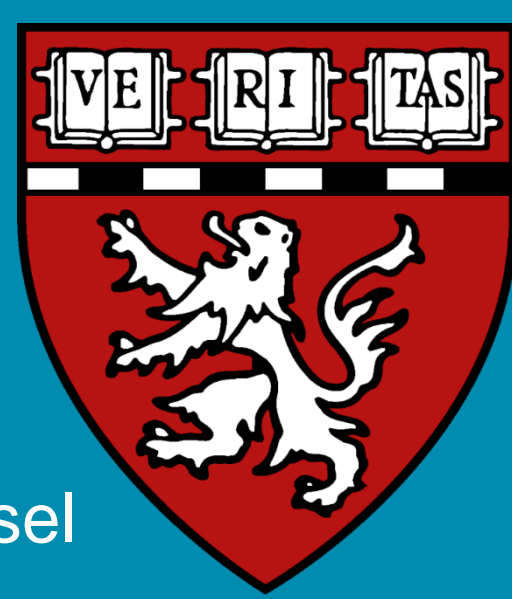




Race, Psychosis, and Involuntary Treatment on an Urban Med-Psych Unit: A 2021 B.I.A.S. Project Report

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INTRODUCTION

Prior studies document racial disparities in involuntary commitment and treatment on inpatient psychiatry units, especially among black patients.^{1,2} Patients diagnosed with psychotic disorders are also more likely to be involuntarily committed, and differences in the diagnosis of psychotic illness among minorities may partially mediate these racial disparities.³⁻⁵ There is a paucity of work that has attempted to understand the underlying determinants of racial differences in involuntary hospitalization. The 2021 Bias In Acute Services (BIAS) project uses data collected prospectively over a six year period on all admissions to a general inpatient psychiatric unit in a large general hospital in Boston. This unit serves a socio-demographically diverse patient population, and is thus well-suited to examine the determinants of racial disparities in involuntary hospitalization. Our team hypothesized that racial disparities in the diagnosis of psychotic disorders would partially mediate disparities in involuntary treatment.

METHODS

- Administrative staff used a standardized form to prospectively record every admission to a 24 bed med-psych unit between 8/1/2012 and 12/31/2018 (5,832 total admissions; 4,489 initial admissions; 4,393 unique individuals with known race).
- Race was based on the patient's self-identification at admission, and diagnostic data was taken from physician notes. A patient was coded as having a psychotic disorder regardless of suspected etiology (e.g. primary thought disorder, affective, substance-induced, neuro medical).
- Legal status was recorded at admission and discharge. Patients with any legal status other than conditional voluntary were considered involuntary (e.g. three-day hold, filed for commitment but discharged before hearing, court committed, patient three-day letter submitted).
- Statistical analyses were conducted in R and Microsoft Excel. Table 1 displays descriptive statistics.

RESULTS

Table 1. Descriptive Demographic and Clinic Variables by Race (N = 4393)

	White		Black		Hispanic/Latinx		Asian		Other	
	N	%	N	%	N	%	N	%	N	%
Total	3187	72.5%	486	11.1%	430	9.8%	159	3.6%	131	3.0%
Age (Mean, SD)	45.7	17.3	38.2	14.5	37.0	14.3	35.6	15.9	36.2	16.1
Male	1654	51.9%	248	51.0%	226	52.6%	84	52.8%	76	58.0%
Female	1524	47.8%	237	48.8%	204	47.4%	75	47.2%	55	42.0%
Other/Unknown	9	0.3%	1	0.2%	0	0.0%	0	0.0%	0	0.0%
Housed	2661	83.5%	327	67.3%	378	87.9%	142	89.3%	101	77.1%
Homeless	526	16.5%	159	32.7%	52	12.1%	17	10.7%	30	22.9%
Insurance Commercial	1171	36.7%	105	21.6%	91	21.2%	71	44.7%	32	24.4%
Insurance Public	1599	50.2%	271	55.8%	257	59.8%	43	27.0%	67	51.1%
Insurance Dual Eligible	48	1.5%	10	2.1%	2	0.5%	3	1.9%	1	0.8%
Uninsured	354	11.1%	97	20.0%	77	17.9%	41	25.8%	31	23.7%
Insurance Status Unknown	15	0.5%	3	0.6%	3	0.7%	1	0.6%	0	0.0%
Primary Dx MDD	1247	39.1%	115	23.7%	160	37.2%	43	27.0%	49	37.4%
Primary Dx Bipolar Disorder	465	14.6%	49	10.1%	48	11.2%	15	9.4%	16	12.2%
Primary Dx Mood NOS	306	9.6%	34	7.0%	35	8.1%	10	6.3%	9	6.9%
Primary Dx Schizophrenia	601	18.9%	238	49.0%	123	28.6%	70	44.0%	40	30.5%
Primary Dx Anxiety, Trauma	152	4.8%	12	2.5%	14	3.3%	11	6.9%	6	4.6%
Primary Dx Substance	152	4.8%	11	2.3%	33	7.7%	2	1.3%	5	3.8%
Primary Dx Other	264	8.3%	27	5.6%	17	4.0%	8	5.0%	6	4.6%
Admitted Involuntary	765	24.0%	217	44.7%	142	33.0%	59	37.1%	57	43.5%
Discharged Involuntary	650	20.4%	163	33.5%	102	23.7%	45	28.3%	37	28.2%
Filed for Commitment	183	5.7%	73	15.0%	29	6.7%	18	11.3%	12	9.2%

■ Unadjusted OR ■ Adjusted for Psychosis

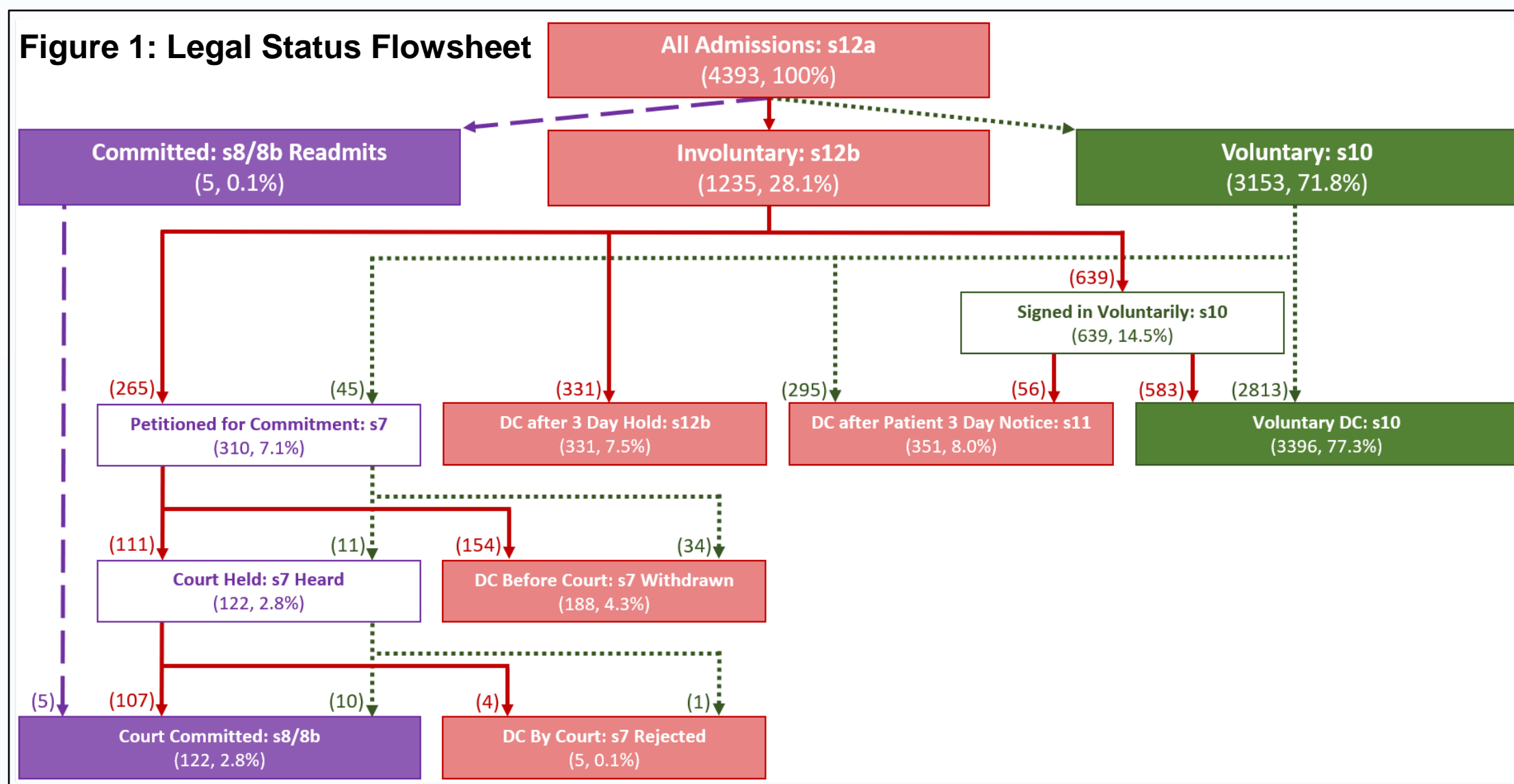
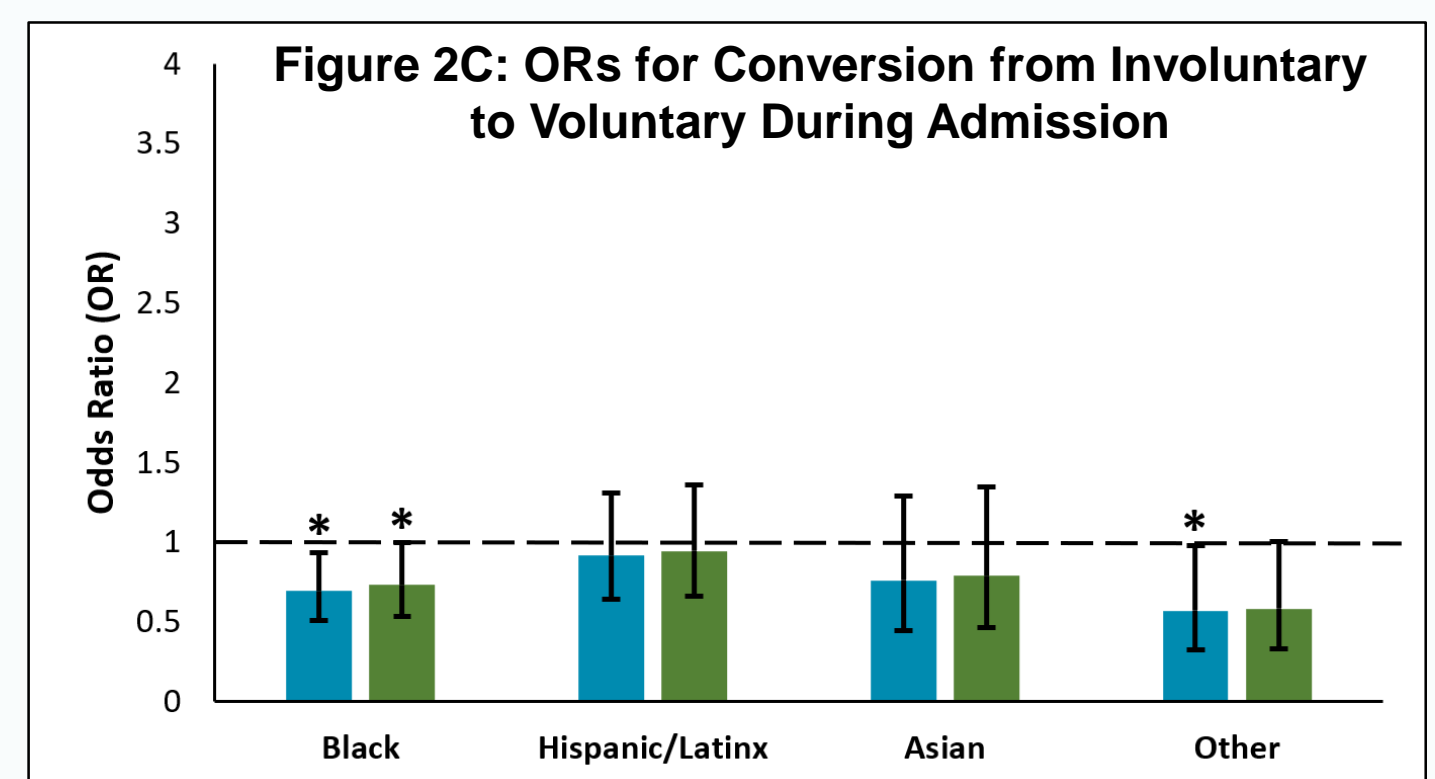
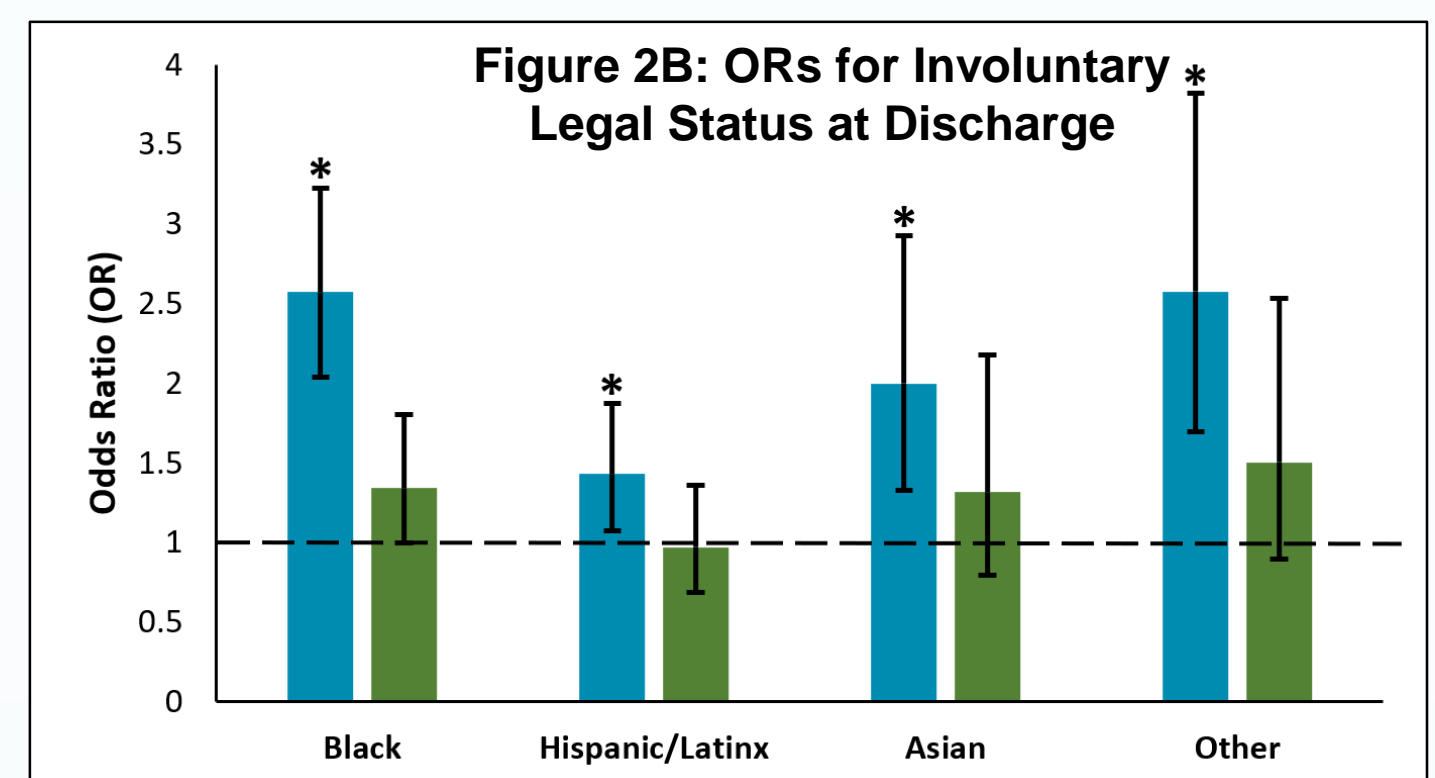
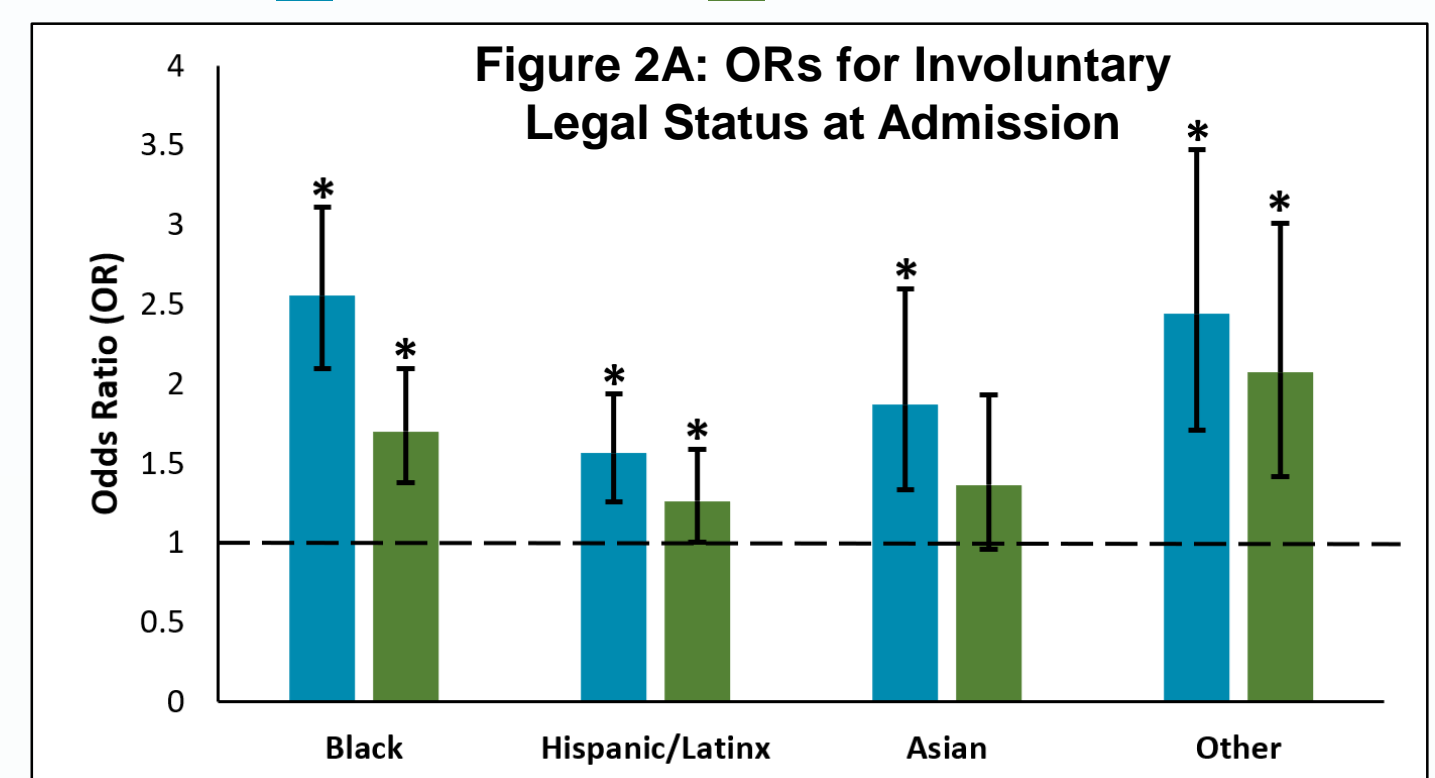


Table 2. Multivariate Logistic Regression, ORs Compared to White Patients*

	Black		Hispanic/Latinx		Asian		Other	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Involuntary at Admission	1.568 (1.262, 1.946)	<0.001	1.244 (0.982, 1.572)	0.069	1.278 (0.883, 1.837)	0.189	2.048 (1.390, 3.002)	<0.001
Involuntary at Discharge	1.276 (0.943, 1.276)	0.114	1.062 (0.745, 1.507)	0.737	1.203 (0.716, 2.015)	0.483	1.536 (0.905, 2.608)	0.111
Filed for Commitment	1.676 (1.209, 2.305)	0.002	1.097 (0.701, 1.664)	0.674	1.433 (0.805, 2.430)	0.200	1.444 (0.721, 2.669)	0.267

*Backwards stepwise regression model (p<0.1). Gender, care team, attending, and admission day of week did not meet inclusion threshold for any analysis. Involuntary at Admission: race, insurance, primary diagnosis, presence of psychosis, presence of substance use, referral source. Involuntary at Discharge: race, housing, insurance, primary diagnosis, referral source, involuntary at admission. Filed: race, age, housing, primary diagnosis, presence of psychosis, presence of substance use.

CONCLUSIONS

- Racial disparities exist among a wide range of clinical and demographic variables including for civil commitment variables
- Disparities are largest at admission, suggesting that they may be reduced by interventions targeting early treatment.
- Adjusting for psychosis decreases the magnitude of observed disparities suggesting it plays a confounding or mediating role.
- Further work will examine additional determinants of racial disparities to target specific subgroups that are most likely to experience involuntary hospitalization and treatment. The relationship between race and the diagnosis of a psychotic disorder also merits further investigation.

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