## **Supplemental Online Content**

Tsai JW, Janke A, Krumholz HM, Khidir H, Venkatesh A. Race and ethnicity and emergency department discharge against medical advice. *JAMA Netw Open*. 2023;6(11):e2345437. doi:10.1001/jamanetworkopen.2023.45437

**eTable 1.** Sample Hospital Characteristics (Primary Analysis and Secondary Analysis)

**eTable 2.** Discharges Against Medical Advice (DAMA) Rates By Race and Ethnicity for Fifty Most Common Emergency Department (ED) Conditions

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Sample hospit	al characteristics (Prin	nary analysis and Seco	ndary analysis)
	Hospitals Included,	Hospitals Included,	Hospitals Excluded
	Primary Analysis	Secondary Analysis	from Primary Analyses
	(N=989)	(N=401)	(N=588)
Region			
Northeast	121	74	47
Midwest	301	77	224
South	367	152	215
West	200	98	102
Hospital Control Status			
Government/private (collapsed category)	76	51	25
Government, nonfederal	211	50	161
Private, not-for- profit	465	192	273
Private, investor- owned	162	71	91
Private (collapsed category)	75	37	38
Teaching Status			
Metropolitan non-	270	124	146
teaching			
Metropolitan teaching	338	245	93
Non-metropolitan hospital	381	32	349
Urban-Rural Designation			
Large metro	330	233	97
Small metro	270	130	140
Micropolitan	146	25	121
Not	223	4	219
metro/micropolitan			
Collapsed categories	20	9	11
ED Visit Volume			
<20k	451	26	425
20-40k	221	119	102
40-60k	145	102	43
60-80k	82	70	12
80-100k	46	41	5
>100k	44	43	1
Total ED Visits (unweighted), N	33,147,251	23,534,062	9,613,189

eTable 2. Discharges Against Medical Advice (DAMA) Rates By Race and Ethnicity for Fifty Most Common Emergency Department (ED) Conditions

		<u> </u>	DAMA Rates**	
Top 50 Most Common CCSR Conditions	Percentage of Total ED Visits*	Black	Hispanic	White
Abdominal pain and other digestive/abdomen signs and symptoms	4.45%	4.48%τττ	3.39%τττ	2.70%
Other specified upper respiratory infections	3.88%	$0.54\%^{\tau\tau\tau}$	0.39%	0.40%
Nonspecific chest pain	3.85%	$4.70\%^{\tau\tau\tau}$	4.13%τττ	3.99%
Superficial injury; contusion, initial encounter	3.47%	$0.83\%^{ au au}$	0.85% <sup>τττ</sup>	0.64%
Sprains and strains, initial encounter	3.09%	$0.29\%^{ au au}$	$0.26\%^{ au au}$	0.21%
Musculoskeletal pain, not low back pain	3.08%	2.70% <sup>τττ</sup>	$2.82\%^{ au au}$	2.13%
Urinary tract infections	2.57%	$0.62\%^{ au au au}$	0.50%	0.46%
Skin and subcutaneous tissue infections	2.19%	1.14%τττ	1.27%τττ	1.45%
Headache; including migraine	2.07%	$3.03\%^{\tau\tau\tau}$	$2.52\%^{\tau\tau\tau}$	1.93%
Open wounds to limbs, initial encounter	1.94%	1.32%τττ	0.98% <sup>τττ</sup>	0.62%
Respiratory signs and symptoms	1.88%	4.18%τττ	3.58%τττ	2.95%
Septicemia	1.54%	0.22%	0.23%	0.22%
<b>Unacceptable PDX (miscellaneous diagnoses)</b>	1.54%	14.08% <sup>τττ</sup>	12.30%τττ	11.18%
Nausea and vomiting	1.50%	2.84%τττ	2.20% <sup>τττ</sup>	1.95%
Other specified complications in pregnancy	1.45%	2.88%τττ	1.92%τττ	1.67%
Spondylopathies/spondyloarthropathy (including infective)	1.34%	1.23%τττ	1.15%τττ	0.97%
Open wounds of head and neck, initial encounter	1.34%	1.42%τττ	1.11%τττ	0.81%
Acute bronchitis	1.33%	0.33%	$0.24\%^{ au au}$	0.30%
Other unspecified injury	1.30%	2.03%τττ	1.86%τττ	1.36%
Fracture of the upper limb, initial encounter	1.21%	$0.62\%^{ au au au}$	$0.40\%^{ au au}$	0.30%
Influenza	1.17%	0.29%	0.32%	0.29%
Viral infection	1.16%	0.34%τττ	0.28%	0.26%
Pneumonia (except that caused by tuberculosis)	1.15%	$0.82\%^{ au au au}$	$0.50\%^{\tau\tau\tau}$	0.69%
Alcohol-related disorders	1.12%	$3.55\%^{\tau\tau}$	4.21%τττ	3.33%
Low back pain	1.09%	1.70% <sup>τ</sup>	1.79% <sup>ττ</sup>	1.57%

Otitis media	1.06%	0.12%τ	0.12%	0.09%
Asthma	1.06%	1.26%τττ	$1.34\%^{\tau\tau\tau}$	0.97%
Disorders of teeth and gingiva	1.03%	$0.99\%^{ au}$	$1.17\%^{\tau\tau\tau}$	0.88%
Diabetes mellitus with complication	1.02%	$1.94\%^{\tau\tau\tau}$	1.62%	1.64%
Heart failure	0.94%	1.05% <sup>τττ</sup>	$0.82\%^{ au au}$	0.62%
Syncope	0.92%	4.21%τττ	$3.60\%^{ au au}$	2.86%
Chronic obstructive pulmonary disease and bronchiectasis	0.91%	$1.63\%^{\tau}$	1.83%τττ	1.47%
Noninfectious gastroenteritis	0.89%	$0.57\%^{ au au}$	0.46%	0.48%
General sensation/perception signs and symptoms	0.88%	3.72%τττ	$3.10\%^{\tau\tau\tau}$	2.13%
Fluid and electrolyte disorders	0.85%	$1.67\%^{\tau\tau\tau}$	1.22%	1.20%
Epilepsy; convulsions	0.81%	$2.76\%^{\tau\tau\tau}$	2.08% <sup>τττ</sup>	2.45%
Skin/Subcutaneous signs and symptoms	0.78%	3.27%τττ	2.80%	2.59%
Other specified and unspecified gastrointestinal disorders	0.78%	$0.87\%^{ au au}$	0.67%	0.64%
Fracture of the lower limb (except hip), initial encounter	0.74%	0.36%	$0.36\%^{\tau}$	0.28%
Fever	0.74%	3.27%τττ	2.98% <sup>τττ</sup>	2.21%
Cardiac dysrhythmias	0.72%	1.35% <sup>τττ</sup>	$1.19\%^{\tau\tau\tau}$	0.87%
Anxiety and fear-related disorders	0.70%	$2.76\%^{\tau\tau\tau}$	$2.31\%^{\tau}$	2.06%
Circulatory signs and symptoms	0.64%	$3.19\%^{\tau\tau\tau}$	$2.76\%^{\tau\tau\tau}$	1.90%
Essential hypertension	0.64%	$2.27\%^{ au au}$	$1.97\%^{\tau\tau\tau}$	1.38%
Cornea and external disease	0.63%	0.32%	0.25%	0.28%
Traumatic brain injury (TBI); concussion, initial encounter	0.57%	$0.81\%^{ au au}$	0.59%	0.49%
Depressive disorders	0.57%	$1.17\%^{\tau\tau\tau}$	0.89%	0.76%
Biliary tract disease	0.55%	$1.01\%^{ au au}$	0.78%	0.70%
Suicidal ideation/attempt/intentional self-harm	0.53%	1.32%τττ	0.99%	0.92%
Other general signs and symptoms	0.53%	5.55%τττ	4.01%	4.52%

<sup>\*</sup> Percentage denominator total weighted sample of emergency department visits (N=143,432,284)

CCSR= Clinical Classifications Software Refined diagnosis groupings

<sup>\*\*</sup>Percentage of condition-specific ED visits resulting in DAMA per race and ethnicity group Pairwise comparison for Black versus white and Hispanic versus white, statistically significant <sup>T</sup>for p<0.05, <sup>TT</sup>for p<0.01, <sup>TTT</sup>for p<0.001,

eTable 3. Emergency Department (ED) Conditions With Average Discharges Against Medical Advice (DAMA) Rate > 4%				
		DAMA Rates**		
Top 50 Most Common CCSR Conditions	Percentage of	Black	Hispanic	White
	Total ED		_	
	Visits*			
Miscellaneous mental and behavioral disorders/conditions	0.02%	3.91%	4.33%	4.22%
Nonspecific chest pain	3.87%	4.11%	4.63%	3.93%
Opioid-related disorders	0.14%	4.31%	3.98%	4.14%
Other general signs and symptoms	0.53%	4.11%	5.36%	4.37%
Other specified status	0.04%	9.66%	5.92%	8.68%
Other specified substance-related disorders	0.13%	3.96%	4.83%	4.48%
Poisoning by drugs, initial encounter	0.37%	4.15%	4.09%	5.84%

<sup>\*</sup> Percentage denominator total weighted sample of emergency department visits (N=143,432,284)

\*\*Percentage of condition-specific ED visits resulting in DAMA per race and ethnicity group

CCSR= Clinical Classifications Software Refined diagnosis groupings