

Current Status of Emergency Department Initiation of Buprenorphine for Opioid Use Disorder

Clinical Trials Network Emergency Department Research Meeting

Edouard Coupet Jr, M.D., M.S.
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Yale School of Medicine
Assistant Professor
Department of Emergency Medicine



No financial conflicts of interests to disclose.

Outline

- Why the Emergency Department (ED)?
- Status of ED Buprenorphine Prescribing
- Importance of Protocols
- Information Technology
- Lessons Learned
- Policy/Legal Updates
- Disparities in ED Opioid Use Disorder (OUD) Care
- Stigma
- Future Considerations

Why should we focus on ED efforts to fight the opioid crisis?



Overdose



Screening



Seeking Treatment

From 2015..

A Randomized Trial of ED-Initiated Interventions for Opioid Dependence

Research

D'Onofrio, G., O'Connor, P.G., Pantalon, M.V., Chawarski, M.C.,
Busch, S.H., Owens, P.H., Bernstein, S.L. and Fiellin, D.A.

Original Investigation

Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence A Randomized Clinical Trial

Gail D'Onofrio, MD, MS; Patrick G. O'Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD;
Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD

IMPORTANCE Opioid-dependent patients often use the emergency department (ED) for medical care.

OBJECTIVE To test the efficacy of 3 interventions for opioid dependence: (1) screening and referral to treatment (referral); (2) screening, brief intervention, and facilitated referral to community-based treatment services (brief intervention); and (3) screening, brief intervention, ED-initiated treatment with buprenorphine/naloxone, and referral to primary care for 10-week follow-up (buprenorphine).

DESIGN, SETTING, AND PARTICIPANTS A randomized clinical trial involving 329 opioid-dependent patients who were treated at an urban teaching hospital ED from April 7, 2009, through June 25, 2013.

INTERVENTIONS After screening, 104 patients were randomized to the referral group, 111 to

+ JAMA Report Video and Author Video Interview at jama.com

+ CME Quiz at jamanetworkcme.com
CME Questions p



Research Letter | Emergency Medicine

To now..

October 20, 2020

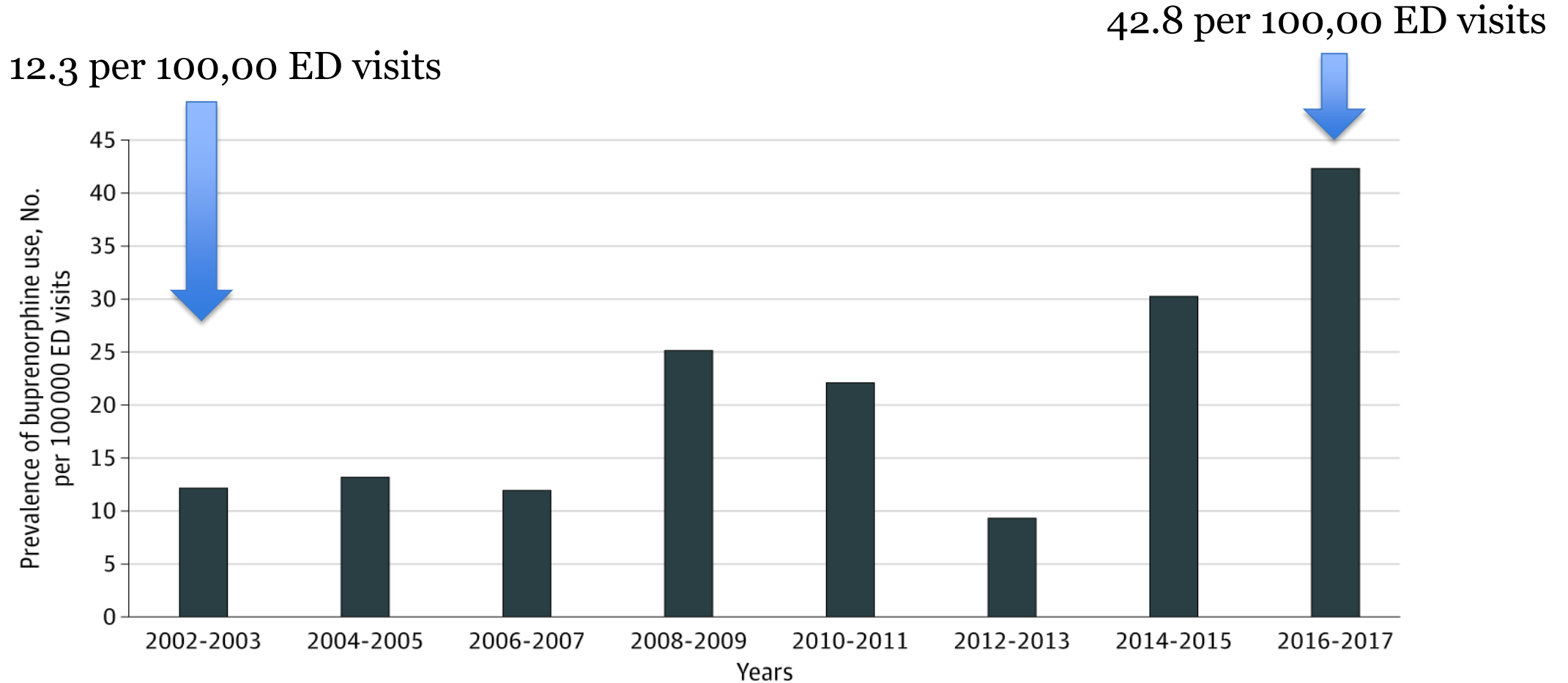
Trends in the Use of Buprenorphine in US Emergency Departments, 2002-2017

Taeho Greg Rhee, PhD, MSW^{1,2}; Gail D'Onofrio, MD, MS^{3,4,5}; David A. Fiellin, MD^{3,4,5,6}

» [Author Affiliations](#) | [Article Information](#)

JAMA Netw Open. 2020;3(10):e2021209. doi:10.1001/jamanetworkopen.2020.21209

Trends in ED-Initiated Buprenorphine 2002-2017



OR for linear trend, 3.31; 95%CI 1.04-10.50

Rhee, D'Onofrio, Fiellin 2020

Consensus Recommendations on the Treatment of Opioid Use Disorder in the Emergency Department



Kathryn Hawk, MD, MHS*; Jason Hoppe, DO; Eric Ketcham, MD; Alexis LaPietra, DO; Aimee Moulin, MD; Lewis Nelson, MD; Evan Schwarz, MD; Sam Shahid, MBBS, MPH; Donald Stader, MD; Michael P. Wilson, MD; Gail D'Onofrio, MD, MS

*Corresponding Author. E-mail: kathryn.hawk@yale.edu.

The treatment of opioid use disorder with buprenorphine and methadone reduces morbidity and mortality in patients with opioid use disorder. The initiation of buprenorphine in the emergency department (ED) has been associated with increased rates of outpatient

the group recommends that emergency physicians offer to initiate opioid use disorder treatment with buprenorphine in appropriate patients and provide direct linkage to ongoing treatment for patients with untreated opioid use disorder.

sensus, the group recommends that emergency physicians offer to initiate opioid use disorder treatment with buprenorphine in appropriate patients and provide direct linkage to ongoing treatment for patients with untreated opioid use disorder. These consensus recommendations include strategies for opioid use disorder treatment initiation and ED program implementation. They were approved by the ACEP board of directors in January 2021. [Ann Emerg Med. 2021;78:434-442.]

0196-0644/\$-see front matter

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<https://doi.org/10.1016/j.annemergmed.2021.04.023>

E-QUAL Network Opioid Initiative

Opioid Initiative Goal



Reducing Opioid-Associated Harm
through safer prescribing and the implementation
of evidence-based interventions

Our aims for this initiative include helping EDs to:

- Implement alternatives to opioids (ALTO)
- Improve opioid prescribing safety
- Adopt harm reduction strategies such as naloxone prescribing and initiate treatment of opioid use disorder (OUD) with buprenorphine

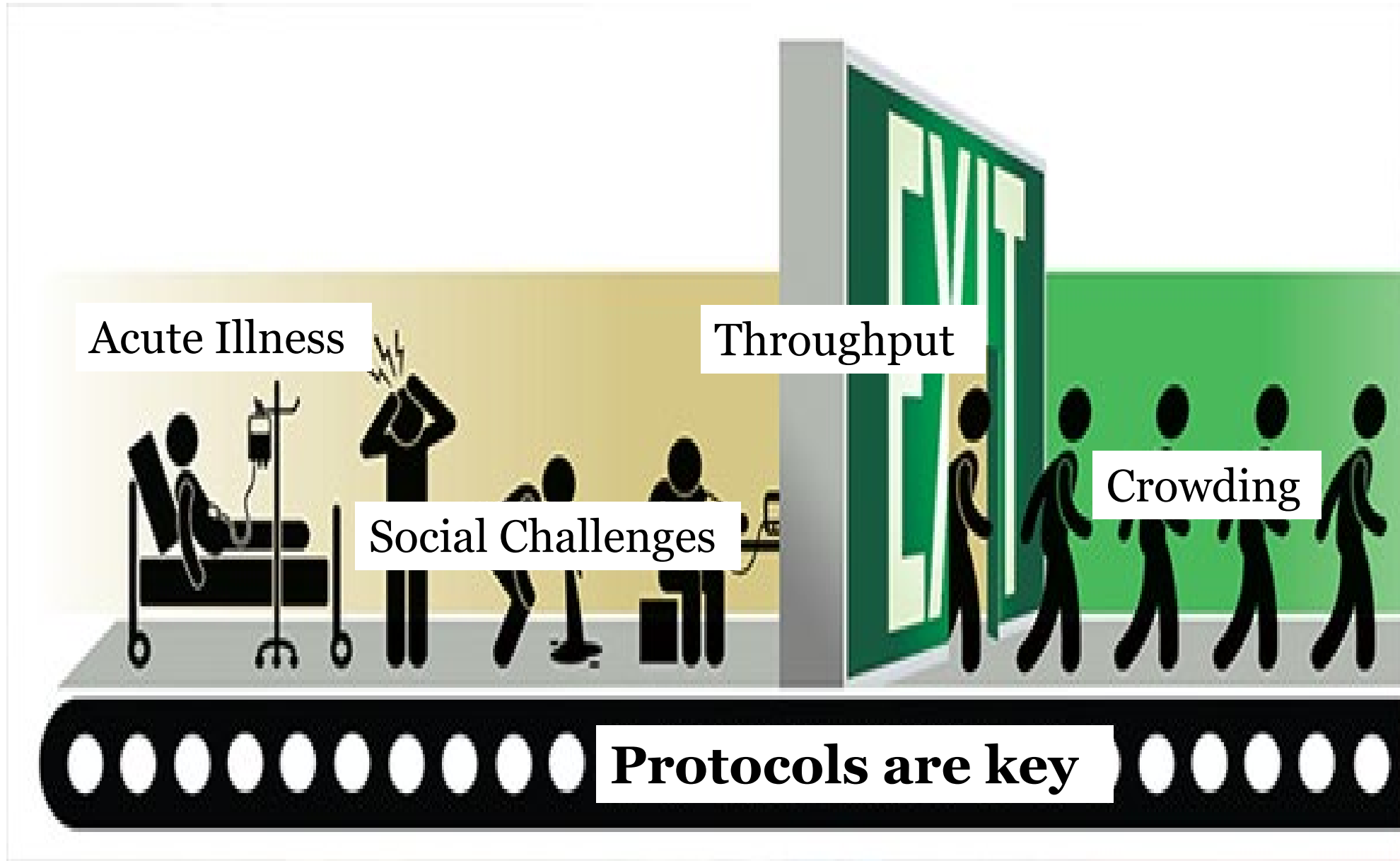
E-QUAL Initiatives Portal

<https://www.acep.org/administration/quality/equal/e-quality-opioid-initiative/>

How did we get

HERE

?



ED Buprenorphine Protocols Across Geographically-Diverse Sites

- All protocols contained three components
 - ID of treatment eligible patients
 - Buprenorphine initiation
 - Discharge plan and follow-up
- Within each component there was a high degree of variability
 - Most (71%) relied on physician judgment for ID of treatment eligible patients
 - Initial buprenorphine dosing, timing between doses & max 1st day dose varied between sites
 - Most protocols had explicit info about discharge buprenorphine dosing, recommended follow-up & provision/prescribing of naloxone

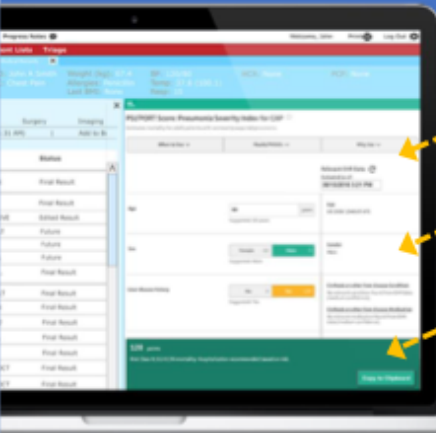
“Emergency Department-Initiated Buprenorphine Protocols: A National Evaluation” In Press

Clinical Decision Support



Search: ED Buprenorphine Desktop/phone app coming soon!

MDCalc Connect
Early Adopters Program – INVITE ONLY



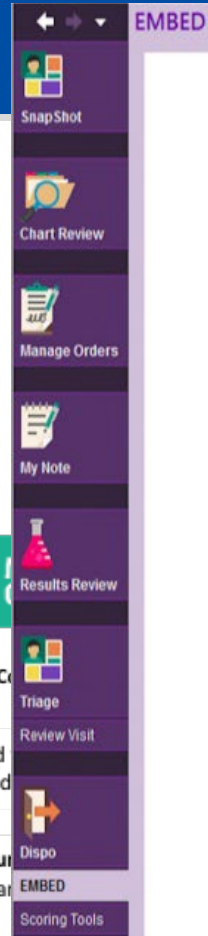
The MDCalc you love, now even better!

- Embedded in patient chart** → integrated & broad ad
- Proprietary, next-gen autofills** → more accurate the standard
- Dot phrases for easy documentation** → ↑ collections, ↓ waste, ↓ liability (your CFO will love it)

*Abedin 2020*¹ found MDCalc Connect superior to standard of care:

Among 60 patients, found 57 conditions missed by clinicians

Changed treatment in 13.5% of patients



Buprenorphine (BUP) Initiation

Do you have a waiver to prescribe Buprenorphine?

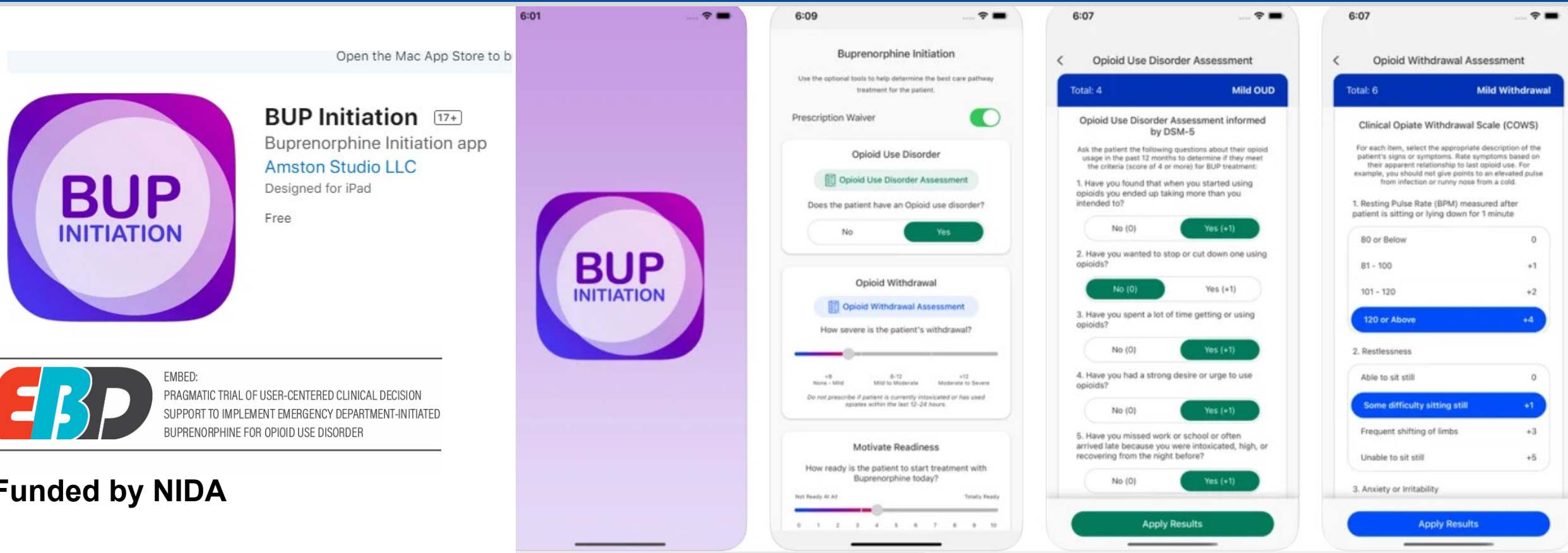
No Yes

Buprenorphine Treatment Options

[ED-initiated Buprenorphine Resources](#)

	Care Pathway #1	Care Pathway #2	Care Pathway #3	Care Pathway #4	Decision Support
	Exit/No BUP	Hold in ED	Start 4 mg BUP (2x)	Start 8 mg BUP	Use these optional tools in any order to help you decide
Does the patient have Opioid Use Disorder?	NO (<4 DSM criteria)	YES (≥4 DSM criteria)	YES (≥4 DSM criteria)	YES (≥4 DSM criteria)	Diagnose OUD using DSM tool
How severe is patient's withdrawal?	None-to-Mild < 8	None-to-Mild < 8	Mild-to-Moderate 8 - 13	Moderate-to-Severe > 13	Assess Withdrawal using COWS tool
Is patient ready for treatment?	NO	YES	YES	YES	Motivate Readiness using interview tool
	Select #1	Select #2	Select #3	Select #4	

Buprenorphine Initiation App (available in Apple Store & Google)



APPLE: <https://apps.apple.com/us/app/bup-initiation/id1574350314>

GOOGLE: <https://play.google.com/store/apps/details?id=com.amstonstudio.yaleembed>

Lessons Surrounding Implementation of ED-Initiated Buprenorphine

- Make it easy!
 - Electronic Health Records (EHR)
 - Protocols
- Identify local champions, including ED & community stakeholders
 - Guide protocol development & processes
 - Improves patient engagement
- Multi-level, interdisciplinary support is critical
- Stigma, while improving, remains a barrier to receiving treatment

Identifying ED Patients with Untreated Opioid Use Disorder



Drug and Alcohol Dependence

Volume 219, 1 February 2021, 108428



Emergency department patients with untreated opioid use disorder: A comparison of those seeking versus not seeking referral to substance use treatment

Edouard Coupet Jr^{a, b} ✉, Gail D'Onofrio^{a, b}, Marek Chawarski^{a, b, c}, E.J. Edelman^{b, c}, Patrick G. O'Connor^{b, c}, Patricia Owens^a, Shara Martel^a, David A. Fiellin^{a, b, c, d}, Ethan Cowan^e, Lynne Richardson^e, Kristen Huntley^f, Lauren K. Whiteside^g, Michael S. Lyons^h, Richard E. Rothmanⁱ, Michael Pantalon^a, Kathryn Hawk^{a, b}

- Most patients (15%) with untreated OUD seen in the ED are **NOT** seeking a referral for addiction treatment
- Less than half (48.3%) of patients who identified as seeking addiction treatment had an ICD-10 code for OUD
- Individuals in the ED with untreated OUD are challenged by multiple social risks
 - Housing instability
 - Unemployment

ED Clinician Barriers & Facilitators to ED-Initiated Buprenorphine



Original Investigation | Substance Use and Addiction

Barriers and Facilitators to Clinician Readiness to Provide Emergency Department-Initiated Buprenorphine

Kathryn F. Hawk, MD; Gail D'Onofrio, MD; Marek C. Chawarski, PhD; Patrick G. O'Connor, MD; Ethan Cowan, MD; Michael S. Lyons, MD; Lynne Richardson, MD;
Richard E. Rothman, MD; Lauren K. Whiteside, MD; Patricia H. Owens, MS; Shara H. Martel, MPH; Edouard Coupet Jr, MD; Michael Pantaloni, PhD; Leslie Curry, PhD;
David A. Fiellin, MD; E. Jennifer Edelman, MD

- 9 of 258 (4%) completed DATA of 2000 training
- 56 of 268 (21%) had high levels of readiness to prescribe buprenorphine in the ED

ED Clinician Barriers & Facilitators to ED-Initiated Buprenorphine

- Key barriers
 - Lack of training & experience in treating OUD
 - Concerns about linkages to ongoing care
 - Competing needs & resources in busy ED setting
- Key facilitators
 - Receiving education & training
 - Development of local protocols
 - Receiving feedback on patient experiences & gaps in quality of care

Policy & Legal Updates

Status of the DATA 2000 "X-Waiver"

FOR IMMEDIATE RELEASE

January 14, 2021

Contact: OASH Media

202-205-0143

ashmedia@hhs.gov

HHS Expands Access to Treatment for Opioid Use Disorder

Eliminates Certain X-Waiver Requirements for DEA-Registered Physicians

- Physicians simply place an "X" on the script to suggest use for OUD
- 30-patient treatment cap but doesn't apply to ED

Status of the DATA 2000 “X-Waiver”



April 29, 2021



Biden Administration Finalizes Buprenorphine Practice Guidelines: A Step in the Right Direction

- January 28th 2021 Biden admin expressed plans to reinstate requirements
- Most recent guidelines clinicians must apply thru SAMHSA
- Eight-hour training course requirement removed
- 30-patient treatment cap remain

Hospital Incentives for OUD Follow-Up Treatment

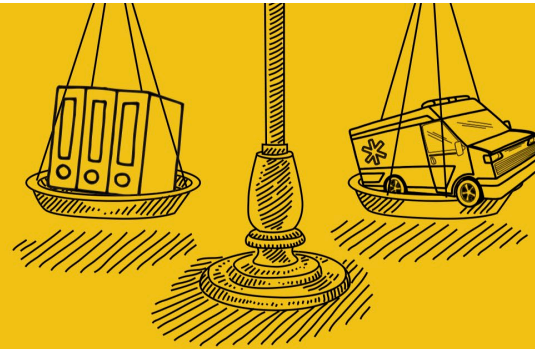
- Pennsylvania established Opioid Hospital Quality Program to improve rates of OUD follow-up for Medicaid recipients
 - 1st statewide financial incentive
- Hospitals earned full payment (\$193,000) for designing & attesting to 4 distinct clinical pathways:
 - ED initiation of buprenorphine
 - Warm handoff to community resources
 - Referral & treatment for pregnant patients
 - Inpatient initiation of medication treatment

EMERGENCY:

Hospitals are Violating Federal Law by Denying Required Care for Substance Use Disorders in Emergency Departments

**“Do the best you can until you know better.
Then when you know better, do better.”**

— Maya Angelou



Sika Yeboah-Sampong, Ellen Weber, Sally Friedman

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Legal Action Center Report Summary

- Recommend hospital adoption of evidence-based practices for SUD care in ED
 - SUD screening & diagnosis
 - Offer to administer buprenorphine
 - Facilitate referral
- Failure to adopt these evidence-based practices exacerbates racial/ethnicity and disability-related disparities
- Hospitals that do **NOT** adopt these practices for SUD care can violate:
 - Emergency Medical Treatment & Labor Act (EMTALA)
 - Americans w/ Disabilities Act (ADA) & Rehab Act of 1973
 - Title VI of the Civil Rights Act of 1964

Disparities in Emergency Department Opioid Use Disorder Care

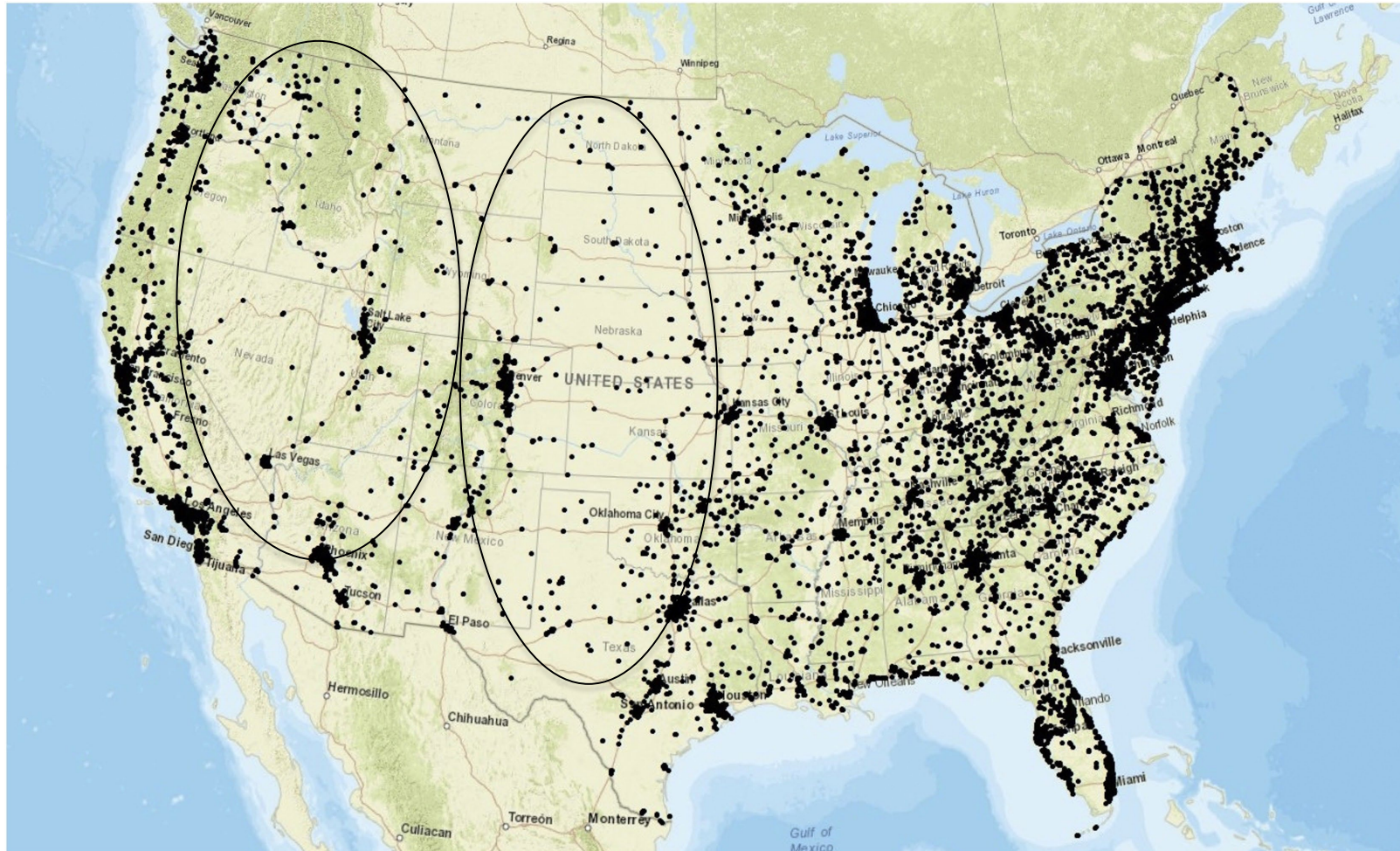
Community Access to Addiction Treatment



- With increased funding, community access to care is improving
- Adoption of MOUD remains low in some settings
- Large treatment gaps remain
 - Regional
 - Racial/ethnic

Huntley et al. 2021

Geographic Proximity to Buprenorphine Treatment Provider in the US



Langabeer et al. 2020

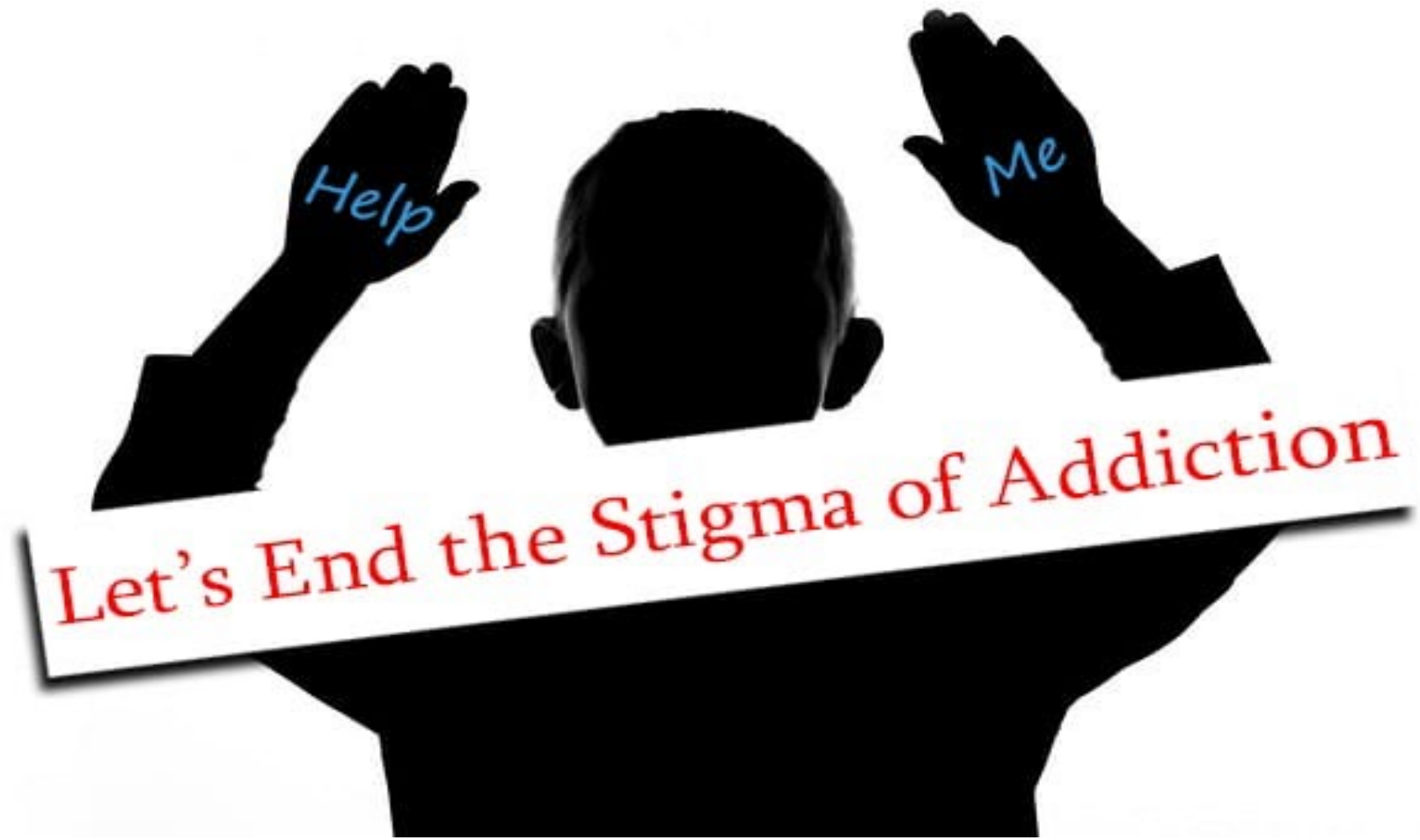
TABLE 2. Multivariable Models Predicting OUD Being Addressed During ED Visit and Subsequent Engagement in Treatment (N = 1946)

	OUD Addressed in ED*						Treatment Engagement†					
	N	%	RR	95% CI	ARR	95% CI	N	%	RR	95% CI	ARR	95% CI
Male	215	17	1.34	(1.04–1.72)	1.29	(0.99–1.66)	113	9	1.36	(0.96–1.93)	1.35	(0.95–1.94)
Female	83	13	1.00	Ref.	1.00	Ref.	43	6	1.00	Ref.	1.00	Ref.
Age (yr)												
18–29	64	22	1.00	Ref.	1.00	Ref.	27	9	1.00	Ref.	1.00	Ref.
30–39	113	17	0.76	(0.56–1.03)	0.82	(0.60–1.12)	71	10	1.13	(0.73–1.77)	1.12	(0.71–1.75)
40–49	59	14	0.66	(0.46–0.94)	0.77	(0.54–1.10)	26	6	0.69	(0.40–1.18)	0.68	(0.39–1.17)
≥50	62	11	0.50	(0.35–0.71)	0.68	(0.47–0.98)	32	6	0.61	(0.37–1.03)	0.76	(0.44–1.33)
Race/Ethnicity												
Black	18	12	0.78	(0.48–1.26)	0.62	(0.38–1.00)	7	5	0.55	(0.26–1.18)	0.72	(0.33–1.56)
White	245	16	1.00	Ref.	1.00	Ref.	135	9	1.00	Ref.	1.00	Ref.
Hispanic/Latinx	20	16	1.00	(0.63–1.57)	0.84	(0.53–1.34)	6	5	0.54	(0.24–1.23)	0.51	(0.22–1.16)
Other/Unknown race	15	15	1.02	(0.61–1.73)	0.92	(0.54–1.56)	8	8	0.99	(0.49–2.03)	0.88	(0.43–1.80)
Insurance												
Medicaid	199	17	1.00	Ref.	1.00	Ref.	99	8	1.00	Ref.	1.00	Ref.
Medicare	53	12	0.70	(0.52–0.95)	0.97	(0.70–1.33)	30	7	0.80	(0.53–1.20)	1.06	(0.68–1.65)
Commercial	25	11	0.65	(0.43–0.99)	0.66	(0.43–1.01)	23	10	1.21	(0.77–1.91)	1.38	(0.87–2.21)
Other insurance	21	24	1.42	(0.90–2.22)	1.07	(0.67–1.68)	4	5	0.54	(0.20–1.48)	0.72	(0.26–1.99)
BPA displayed	115	22	1.72	(1.36–2.17)	1.30	(1.01–1.68)	—	—	—	—	—	—
Admitted as inpatient	22	3	0.15	(0.10–0.24)	0.18	(0.12–0.28)	—	—	—	—	—	—
Left against medical advice	24	10	0.57	(0.38–0.87)	0.57	(0.37–0.87)	15	6	0.70	(0.41–1.19)	0.76	(0.44–1.31)
Past Bridge Clinic encounter	43	18	1.18	(0.86–1.63)	1.33	(0.92–1.91)	58	24	4.15	(3.00–5.74)	2.12	(1.44–3.11)
Past ACT consultation	59	10	0.59	(0.44–0.78)	0.65	(0.48–0.88)	51	9	1.16	(0.83–1.61)	0.98	(0.69–1.40)
Buprenorphine prescription in past 90 d	38	14	0.88	(0.63–1.24)	0.76	(0.52–1.10)	75	27	5.58	(4.08–7.64)	4.14	(2.89–5.92)
OUD addressed in ED	—	—	—	—	—	—	46	15	2.31	(1.64–3.26)	2.30	(1.62–3.27)
Total	298	15					156	8				

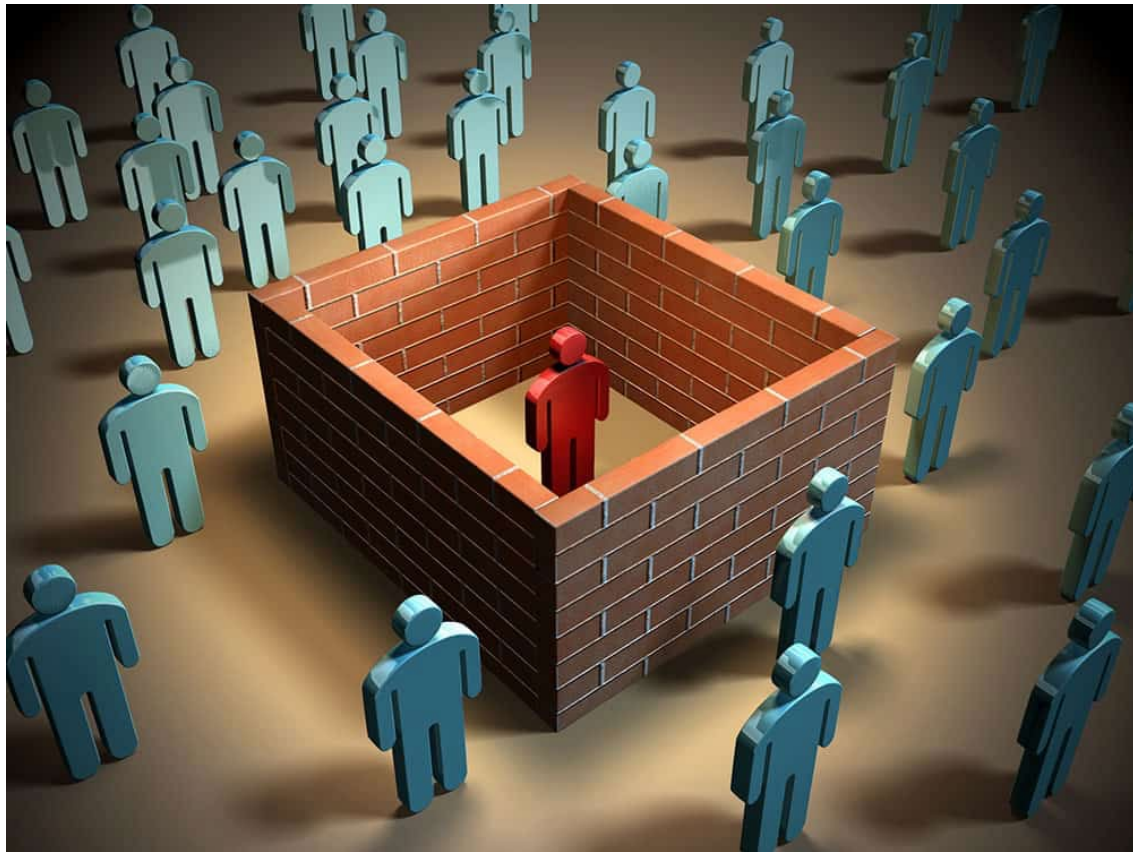
ACT, Addiction Consult Team; ARR, adjusted rate ratio; BPA, best practice advisory; CI, confidence interval; ED, emergency department; OUD, opioid use disorder.

*Referred to Bridge Clinic, buprenorphine initiated during ED visit, or received buprenorphine home induction kit.

†Had an encounter within 14 days of ED visit plus (2 subsequent visits or a prescription for buprenorphine) within the next 34 days.



The Movement to End the Stigma of Addiction



The NEW ENGLAND JOURNAL of MEDICINE

Perspective
APRIL 2, 2020

Stigma and the Toll of Addiction

Nora D. Volkow, M.D.

Each day in 2018, an average of 185 people in the United States died from a drug overdose.¹ In fact, recent declines in U.S. life expectancy are being attributed to direct and indirect effects of

people with addictions³ that may even lead them to withhold care. In emergency departments, for instance, health care professionals may be dismissive of someone with an alcohol or drug problem

ED Clinicians' Attitudes Towards OUD and ED-Initiated Buprenorphine

Table 3. Attitudes towards opioid use disorder (OUD) and buprenorphine treatment by years of practice and roles. Eleven discrete, graded responses were possible for each question, with a score of 10 indicating strongly agree and 0 indicating strongly disagree.

Perception of OUD	Median Response (IQR)								
	All clinicians	Years of Practice			P value	Roles			P value
		< 5 years	≥ 5 years			Attg EP	Resident EP	PA	
Opioid use disorder (OUD) is different from other chronic diseases (e.g., diabetes, hypertension) because people who use drugs like heroin or illicit opioids are making a choice.	3 (2-6)	2.5 (1-5)	4 (2-7)	<0.01	5 (3-7)	3 (1-4)	2.5 (1-5)	<0.03 ^a	
Opioid use disorder is a treatable disease.	8 (7-10)	8 (7-10)	8 (6-10)	0.66	8 (6-10)	8 (7-10)	8 (7-10)	0.85	
I find caring for patients with opioid use disorder as satisfying as my other clinical activities.	3 (2-5)	3.5 (2-5)	3 (2-5)	0.84	3 (1-5)	4 (2-5)	3 (2-7)	0.59	
Treating opioid use disorders reduces associated health and social costs by more than the cost of the treatment itself.	8 (7-10)	8 (7-10)	9 (7-10)	0.98	9 (7-10)	8 (8-10)	8 (7-10)	0.59	
Patients with opioid use disorder are more challenging to take care of than the average patient.	7 (7-0)	7 (7-9)	8 (7-10)	0.01	8 (7-10)	7 (7-9)	8 (7-10)	0.21	
Someone who uses drugs is committing a crime and deserves to be punished.	1 (0-3)	1 (0-3)	1 (0-3)	0.63	1 (0-3)	1 (0-3)	1 (0-2)	0.55	

Future Considerations: Extended-Release Buprenorphine (XR-BUP)



- Treats symptoms for up to 7 days
- Potentially alleviates real-world barriers
 - Treatment availability
 - Insurance issues
- RCT comparing efficacy of XR-BUP vs. SL-BUP
 - 27 US EDs
 - Primary Outcome: Engagement in formal addiction treatment



edouard.coupet@yale.edu