

Opioid Use Disorder Treatment Outreach Program in the Emergency Department



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Background

- Medication-assisted treatment (MAT) for opioid use disorder (OUD) incorporates buprenorphine with counseling and behavioral therapy
- Providing medication to treat OUD with a referral to a recovery clinic increases treatment retention compared to providing referral information alone
- The California Emergency Department Bridge (ED Bridge) program grant streamlines opioid withdrawal treatment in the ED with long-term OUD treatment at a recovery clinic

Objective

This study aims to examine the clinical, social, and financial benefits of an ED Bridge program

Outcomes

Primary

- Number of buprenorphine prescriptions written in the ED before and during the program

Secondary

- Percent of encounters provided referrals to recovery clinic appointments during the program
- Number of encounters with OUD and related comorbidities before and during the program
- Number of encounters administered OUD-related medication before and during the program

Methods

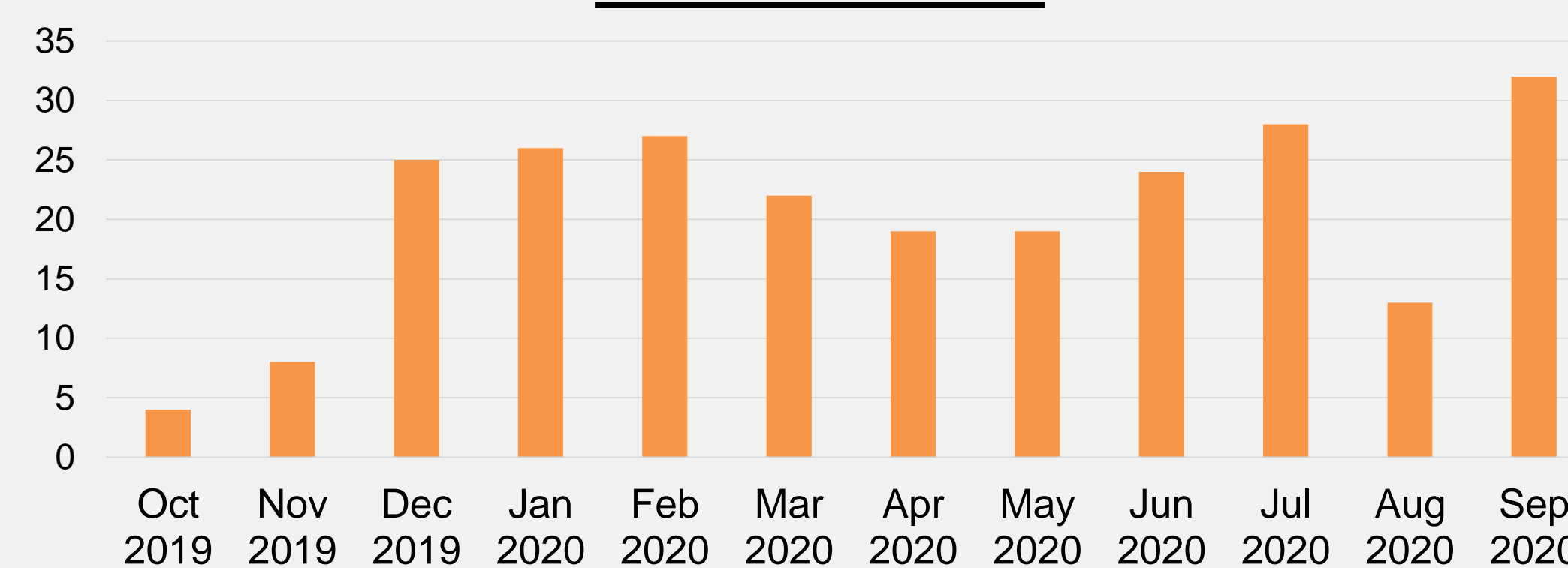
- The ED Bridge protocol involved administering buprenorphine for opioid withdrawal and providing a referral to a recovery clinic with a short-term buprenorphine prescription
- Outcome data that was compared in a pre-post analysis was collected from electronic health records:
 - Pre-intervention time period before the program: 10/1/18 – 9/30/19
 - Post-intervention time period during the program: 10/1/19 – 9/30/20
- Clinic attendance was recorded by the ED Bridge program Substance Use Navigator during the post-intervention time period: 10/1/19 – 9/30/20
- All statistics were calculated via the Excel Analysis ToolPak

Results

Statistically significant results:

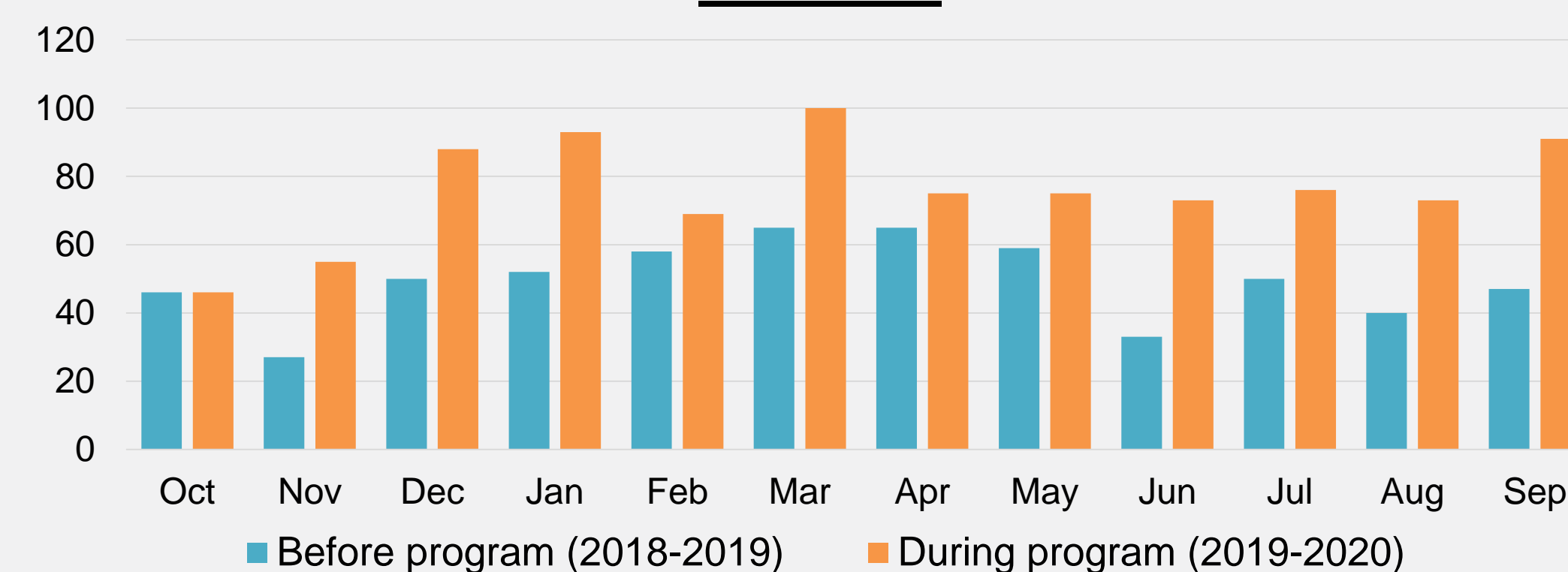
- 247 buprenorphine prescriptions written in ED post-intervention vs. 1 prescription written pre-intervention ($p < 0.05$)

Number of Buprenorphine Prescriptions Written in the ED



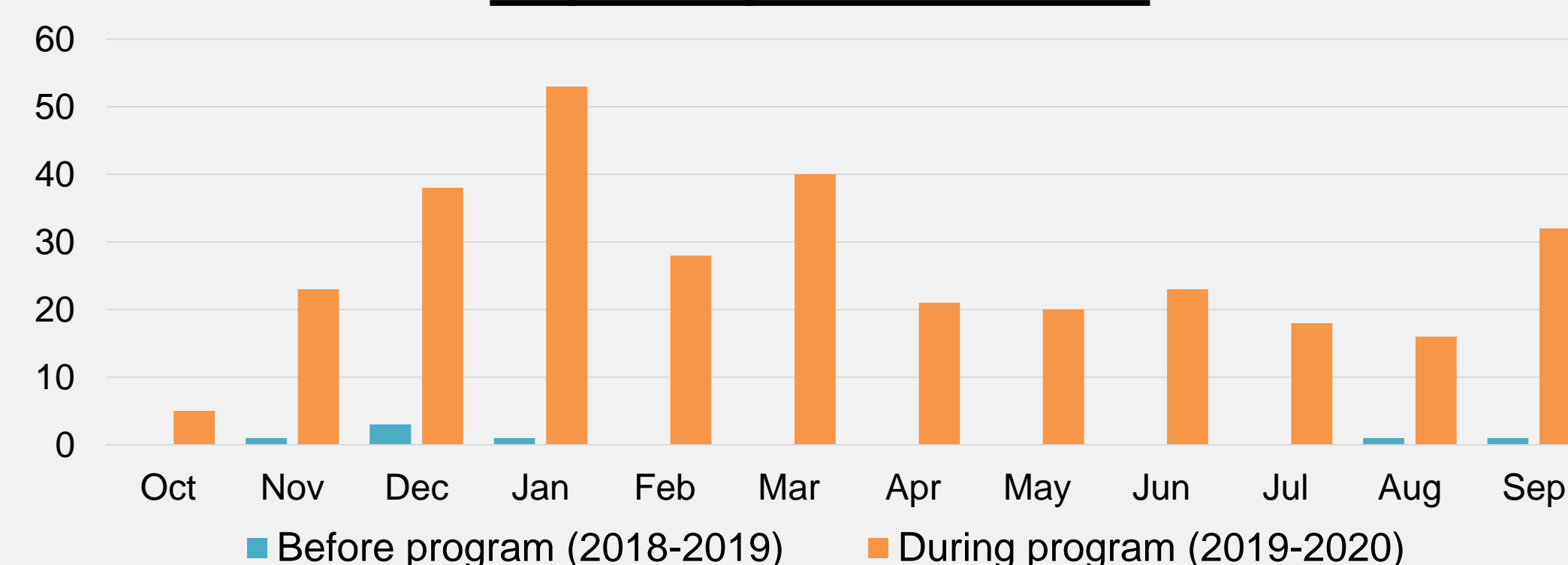
- 914 ED encounters diagnosed with OUD post-intervention vs. 592 encounters diagnosed pre-intervention ($p = 0.0001$)

Number of Encounters Diagnosed with OUD in the ED



- 317 encounters given buprenorphine in ED post-intervention vs. 7 encounters given buprenorphine pre-intervention ($p < 0.05$)

Number of Encounters Administered Buprenorphine in the ED



Statistically insignificant results:

- Number of encounters diagnosed with:
 - Narcotic poisoning
 - Endocarditis
 - Soft skin tissue infections or abscesses
- Number of encounters administered naloxone in the ED

Results (cont.)

- Estimated cost avoidance of ~\$1,595,416 was deferred for one year of the program
- During the first year of the program:
 - 316 patients generated 510 encounters
 - 241 encounters (72% of those eligible) received referrals

Month	# Encounters	# Eligible for Referral	# Referrals Sent	% Referrals/Eligible
Oct 2019	8	6	5	83%
Nov 2019	26	16	12	75%
Dec 2019	40	24	18	75%
Jan 2020	64	41	33	80%
Feb 2020	52	36	25	69%
Mar 2020	63	32	26	81%
Apr 2020	35	21	20	95%
May 2020	38	29	24	83%
Jun 2020	41	29	23	79%
Jul 2020	38	27	15	56%
Aug 2020	44	29	19	66%
Sep 2020	61	45	21	47%
Total	510	335	241	72%

Conclusions

This ED Bridge program encouraged medication-assisted treatment in the community and potentially deferred ~\$1.6 million through prevented OUD-related hospitalizations

Future Research Goals

- Reproduce results at other facilities
- Examine long-term clinical outcomes
- Validate facility-specific financial impact

References

- About the California Bridge Program. CA Bridge website. <https://www.bridgetotreatment.org/about-1>. Accessed March 13, 2020.
- D'Onofrio G, O'Connor PG, Pantalon MV, et al. Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence: a randomized clinical trial. JAMA. 2015; 313(16): 1636-44. doi: 10.1001/jama.2015.3474. About the California Bridge Program. CA Bridge website. <https://www.bridgetotreatment.org/about-1>. Accessed March 13, 2020.
- Groundbreaking Opioid Treatment Rollout to 22 More California Hospitals. CA Bridge website. <https://www.bridgetotreatment.org/cabridgeprogram>. Accessed October 10, 2019.
- Medication-Assisted Treatment (MAT). Substance Abuse and Mental Health Services Administration (SAMHSA) website. <https://www.samhsa.gov/medication-assisted-treatment>. Updated September 9, 2019. Accessed October 10, 2019.
- Opioid Overdoses Costing U.S. Hospitals an Estimated \$11 Billion Annually. Premier Inc. website. <https://www.premierinc.com/newsroom/press-releases/opioid-overdoses-costing-u-s-hospitals-an-estimated-11-billion-annually>. Updated January 3, 2019. Accessed April 20, 2020.