

# Expanding Access to Medications for Opioid Use Disorder Treatment Through Incentivized Continuing Education

Elizabeth Salisbury-Afshar, MD, MPH; Dennis Smithenry, PhD; Randy A. Boley, BA; Kristin Hill, MA; Niranjan S. Karnik, MD, PhD

**Introduction:** Buprenorphine treatment for opioid use disorder (OUD) has positive outcomes including reducing opioid-related morbidity and mortality. In March 2018, 58 of 102 counties in Illinois lacked access to medication for OUD.

**Methods:** Rush University created a fellowship training program with financial incentives to help expand buprenorphine treatment in Illinois. Fellows first completed an online waiver course, then attended an in-person intensive training weekend, and finally participated in a 9-month webinar series. Demographic and prescribing data were collected from fellows, as well as a comparison group of providers outside the fellowship who only completed a waiver training.

**Results:** At the fellowship's end, 31 of 37 fellows (84%) reported they were actively prescribing buprenorphine. Of the 23 fellows who were not prescribing at the fellowship's beginning, 17 (74%) initiated prescribing by the end. Among the 16 nonfellowship subjects who only completed a waiver training, just two (13%) reported they were prescribing buprenorphine at the study period's end.

**Discussion:** Our study indicates that providers need more training beyond the waiver to initiate buprenorphine prescribing. When resources are available to address a health crisis such as OUD, this model offers an innovative mechanism for delivering continuing medical education that produces outcomes quickly.

**Keywords:** buprenorphine, longitudinal curriculum, incentives, MAT, MOUD, OUD

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Approximately 2 million people in the United States have opioid use disorder (OUD),<sup>1</sup> and over 46,000 people died of opioid-related overdose in 2018.<sup>2</sup> Buprenorphine is a medication treatment for OUD that is approved for use in nonspecialty outpatient settings. It increases retention in treatment, reduces illicit opioid use, and reduces opioid-related morbidity and mor-

tality.<sup>3</sup> Despite the availability of evidence-based treatments, significant treatment gaps still exist.<sup>4</sup> Estimates suggest that only 20 to 40% of people with OUD will receive one of the three FDA-approved treatment medications.<sup>4,5</sup> Increasing the number of providers who can prescribe buprenorphine is a key component of national initiatives to increase access to treatment.<sup>6</sup>

The Drug Addiction Treatment Act of 2000 (DATA 2000) allowed physicians who completed a certified training course to prescribe buprenorphine for treatment of OUD from nonspecialty settings. However, less than 4% of licensed physicians had a waiver to prescribe buprenorphine in 2017. Forty-seven percent of all counties in the United States, and 73% of the most rural counties, did not have buprenorphine-waivered physicians in 2016.<sup>6</sup> The Comprehensive Addiction and Recovery Act of 2016 allowed nurse practitioners and physician assistants who complete specified training to obtain the waiver and prescribe buprenorphine.<sup>7</sup> Limits are placed on the number of active patients a practitioner can treat at one time. Evidence suggests that most practitioners with a waiver do not treat as many patients as permitted.<sup>8</sup> A variety of barriers have been identified as contributors to buprenorphine underutilization including insufficient training, education, and experience; lack of institutional and clinician peer support; poor care coordination; provider stigma; inadequate or burdensome reimbursement; and burdensome regulatory procedures.

Like most states, Illinois has identified significant OUD treatment gaps. In March 2018, 58 of 102 counties in Illinois were identified as having no access to medication treatment for OUD. Increasing access to care, including buprenorphine treatment, is one of the strategies outlined in the State's Opioid Action Plan. As part of this strategy, the Illinois Division of Substance Use Prevention and Recovery (SUPR) funded Rush University to develop

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**Ms. Salisbury-Afshar:** Associate Professor, Department of Community Health and Family Medicine, University of Wisconsin, Madison, WI. **Ms. Smithenry:** Education Consultant, Department of Psychiatry and Behavioral Sciences, Rush University Medical Center, Chicago, IL. **Mr. Boley:** Manager, Research Operations, Department of Psychiatry and Behavioral Sciences, Rush University Medical Center, Chicago, IL. **Ms. Hill:** Practice Administrator, Community Behavioral Health, Department of Psychiatry and Behavioral Sciences, Rush University Medical Center. **Mr. Karnik:** The Cynthia Oudejans Harris, MD, Professor of Psychiatry, Department of Psychiatry and Behavioral Sciences, Rush University Medical Center, Chicago, IL.

**Correspondence:** Elizabeth Salisbury-Afshar, MD, MPH, 1100 Delaplaine Ct, Madison, WI 53715; e-mail: elizabeth.salisbury@fammed.wisc.edu.

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and deliver a training program to providers from areas of the state with limited access to medication for OUD.<sup>9</sup>

## METHODS

Rush University's "OUD Treatment Fellowship Program" was designed to increase the number of providers actively prescribing buprenorphine and the number of patients being treated with buprenorphine, with a focus on primary care providers in more rural areas of the state. Physicians, nurse practitioners, and physician assistants were recruited into the non-Accreditation Council for Graduate Medical Education-accredited fellowship through utilization of existing networks such as the state opioid advisory committees, state professional societies, and primary care and community health center organizations. Recruitment materials highlighted the educational opportunity, continuing education credits, and a stipend for program completion. As defined by SUPR, selection criteria focused primarily on the provider's geographic region (prioritizing applicants working in areas of high need) and described the level of commitment for treating OUD. Cohort one had 18 fellows who started on November 2018 and finished on September 2019; cohort 2 had 19 fellows who started on March 2019 and finished on February 2020.

Before the fellowship began, all fellows were required to complete a DATA 2000 waiver course (available online for free). Then, they came to Chicago to participate in a 2-day in-person training weekend where case-based and active learning strategies were used to help them focus on both knowledge transfer and infrastructure development. This was guided by a multidisciplinary team of faculty with various backgrounds (eg, family medicine, addiction medicine, psychiatry, emergency medicine, toxicology, and education) and training backgrounds (eg, MD, NP, and PhD), fellows worked collaboratively to engage in didactics, discuss challenging cases, and gain practice with specific clinical tools. After the weekend, fellows then participated in a 9-month series of 18 one-hour webinars occurring every 2 weeks. There were 12 webinars where fellows presented and received feedback on their own cases and six webinars where faculty members presented additional didactics. These webinar didactics included the following topics: buprenorphine use during pregnancy, management of co-occurring pain, management of co-occurring psychiatric conditions, ongoing substance use, injectable buprenorphine for OUD treatment, and extended release of naltrexone for OUD treatment. In total, fellows were able to earn up to 29 hours of continuing medical education/continuing education unit. At fellowship completion, each fellow received a maximum stipend of \$5000, which was prorated according to participation.

As part of the online application, the following demographic and baseline data were collected from fellows ( $n = 37$ ): (1) credentials, (2) specialty, (3) practice setting, (4) waiver attainment status, (5) buprenorphine prescribing experience, and (6) number of active patients on buprenorphine. At the end of the program, fellows completed an evaluation and reported on their (1) experience with the fellowship, (2) challenges and successes with initiating or scaling buprenorphine prescribing, and (3) number of active patients on buprenorphine.

Because previous studies have shown that many individuals who obtain a waiver do not go on to prescribe, a subgroup analysis was performed to study the impact of the training program on fellows who were naive to buprenorphine prescribing at the beginning of the fellowship ( $n = 23$ ). To complete this analysis, a

comparison group of providers who were also naive to buprenorphine prescribing was identified outside of the fellowship. This group consisted of 44 providers who completed a DATA waiver training hosted by Rush University in May 2018 or February 2019. An online survey was sent to this group of individuals in January 2020; 16 of them (36%) completed the survey and received a \$25 gift card. These 16 "nonfellowship participants" reported (1) credentials, (2) specialty, (3) practice setting, (4) challenges and successes with initiating buprenorphine prescribing, and (5) number of active patients on buprenorphine.

Baseline characteristics and prescribing outcomes were examined among all fellowship participants and nonfellowship participants. A Fisher exact test was used to compare prescribing outcomes between the nonfellowship participants and the fellowship participants who were not prescribing at baseline. All analyses were performed using IBM SPSS Statistics for Windows, version 26 and Microsoft Excel, version 16. This study received approval by the Rush University Medical Center Institutional Review Board.

## RESULTS

Fellowship participants ( $n = 37$ ) included physicians, nurse practitioners, and physician assistants and came from a variety of specialties, practice settings, and practice locations. At the beginning of the study period, 15 fellowship participants (41%) already had a waiver and 14 (38%) were already prescribing to a total of 368 patients across all fellows. The nonfellowship participants ( $n = 16$ ) were significantly different in that this group included only physicians, came from large medical systems, and was less likely to be based in primary care settings. Group characteristics for both fellowship participants and nonfellowship participants are summarized in Table 1.

At the end of the study period, 31 fellowship participants (84%) reported that they were actively prescribing buprenorphine, representing a 121% increase in the number of providers prescribing buprenorphine. As a group, the fellowship participants ( $n = 37$ ) nearly doubled the number of patients actively receiving buprenorphine, cumulatively treating 368 patients at the fellowship's beginning and 711 patients at the end.

Of the 23 fellowship participants who were not prescribing at baseline, 17 (74%) initiated prescribing during the fellowship and 6 (26%) were still not prescribing at the end. In comparison, among the 16 nonfellowship participants, 9 (56%) had received a waiver to prescribe buprenorphine and only 2 (13%) reported that they were actively prescribing buprenorphine at the end of the study period. Thus, a significantly greater percentage of fellowship participants (74%) began prescribing by the end of the study period in comparison with nonfellowship participants (13%) ( $P < .001$ , two-tailed). Prescribing status at the end of the study period is included in Table 1.

To receive the full stipend, the fellows had to attend weekend training, attend at least 80% of the subsequent webinars, complete 3 evaluations, and present a case. Thirty fellows (81%) received the full stipend, showing high engagement throughout the fellowship. Each fellow presented a case during the webinar series and attended an average of 86% of the webinars.

The fellows reported very positive experiences of the fellowship, with 100% "strongly agreeing" the statement: "Based on my experiences, I would recommend this fellowship to others." Fellowship participants ranked the in-person training weekend as the most helpful aspect of the fellowship that

**TABLE 1.**  
**Demographics and Prescribing Outcomes of Fellowship and Nonfellowship Participants**

	All Fellowship Participants ( <i>n</i> = 37) <i>n</i> (%)	Fellowship Participants Not Prescribing at Baseline ( <i>n</i> = 23) <i>n</i> (%)	Nonfellowship Participants ( <i>n</i> = 16) <i>n</i> (%)
Credential			
MD/DO	29 (78.38)	17 (73.90)	16 (100.00)
DNP/APN/FNP	6 (16.22)	5 (21.70)	—
PA	2 (5.41)	1 (4.30)	—
Specialty			
Family medicine/family NP	26 (70.27)	17 (73.91)	2 (12.50)
Internal medicine/adult NP	6 (16.22)	3 (13.04)	2 (12.50)
Emergency medicine	2 (5.41)	—	7 (43.75)
Psychiatry	3 (8.11)	3 (13.04)	4 (25.00)
Neurology	—	—	1 (6.25)
County-level population for practice location			
11,048–39,561	10 (27.03)	7 (30.43)	—
39,562–113,924	9 (24.32)	3 (13.04)	—
113, 925–186,494	10 (27.03)	8 (34.78)	—
186,495–295,266	8 (21.62)	5 (21.74)	—
>5,000,000 (cook county)	—	—	16 (100.00)
Practice setting			
Emergency department	—	—	6 (37.5)
Emergency department and outpatient	2 (5.41)	1 (4.35)	—
Emergency department and inpatient	—	—	1 (6.25)
Primary care—private practice	9 (24.32)	7 (30.43)	3 (18.75)
Primary care—community health center	17 (45.95)	9 (39.13)	—
Primary care—residency clinic	2 (5.41)	1 (4.35)	1 (6.25)
Psychiatry (including psychiatry consult)	3 (8.11)	3 (13.04)	3 (18.75)
Licensed addiction treatment program	4 (10.81)	2 (8.70)	—
Medicine subspecialty (including inpatient consult)	—	—	2 (12.5)
Had waiver before the study period	15 (40.50)	2 (8.70)	—
No. of participants prescribing at the beginning of the study period	14 (37.84)	—	—
No. of participants prescribing at end of the study period	31 (84)	17 (74)	2 (13)

For county population statistics, ranges for fellowship participants were calculated from the lowest county population represented to the 25th percentile, from the 25th to the 50th percentiles, the 50th to 75th percentiles, and the 75th to 99th percentiles, respectively. All nonfellowship participants practiced in Cook County, IL. All county population numbers were based on 2010 Census data.

allowed them to start or expand their OUD treatment practice. They also ranked the top two barriers (among a list of 13 proposed) to initiating or scaling buprenorphine prescribing as the “lack of capacity to take on more patients/already busy schedule” and “concerns about the lack of support staff.”

## DISCUSSION

This study indicates that providers need training beyond the DATA 2000 waiver to initiate buprenorphine prescribing. When designing the SUPR-funded fellowship program, we purposely incentivized it with stipends so that the participants were motivated to complete the training. Of course, without the funding from SUPR, we acknowledge that it would have been difficult for us to deliver such a relatively time-intensive, high-contact, and high-cost model as compared with other training models such as ECHO.<sup>10</sup> However, when the resources are available to address a health crisis, we believe that our model offers an innovative funding mechanism for delivering continuing medical education that produces desired outcomes quickly.

## CONCLUSION

The fellowship was well received and met the goal of increasing capacity for buprenorphine treatment in Illinois. Completion of

the fellowship was positively correlated with initiating buprenorphine prescribing.

### Lessons for Practice

- The federally mandated DATA 2000 waiver training is generally not enough to support medical providers to initiate treatment of opioid use disorder with buprenorphine.
- As compared with the individuals who only completed the DATA 2000 waiver, individuals who completed both the waiver and the incentivized 9-month continuing education fellowship program were more likely to initiate buprenorphine treatment.
- In this continuing education fellowship that included both in-person education and web-based curriculum, participants ranked the intensive in-person weekend training as the most valuable portion of the education.

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