



## Assessing suboxone access in community pharmacies: Secret shopper model

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### ABSTRACT

**Objective:** To assess whether Maryland community pharmacies had Suboxone available for dispensing.  
**Methods:** This cross-sectional study used a secret shopper model to contact public-facing community pharmacies in Maryland. The secret shopper, guided by a script, asked whether a prescription for Suboxone was available for the same or next day pick-up. A small convenience sample of pharmacies who did not have Suboxone available received an in-person visit to inquire about medication availability and dispensing barriers.  
**Results:** After contacting 99% ( $n = 1046$ ) of Maryland public-facing pharmacies, Suboxone was confirmed available for immediate pick-up in 31% ( $n = 326$ ). The remaining did not have, would not disclose, or had limited access (existing patients or specific providers only). Significant differences in Suboxone availability were found for National Capital vs. Baltimore metro region and when pharmacist asked questions vs. no questions. Of the 11 pharmacy visits completed, 10 said they had Suboxone currently in stock, with one clarifying medication was for existing patients only.  
**Conclusion:** About 69% of patients may face challenges when calling to find out whether they can obtain Suboxone in Maryland pharmacies. Better patient education and more thorough pharmacy-level investigation of system and workflow barriers could offer solutions.

### Introduction

The United States (US) opioid crisis persists despite ongoing efforts to address. Buprenorphine is an evidence-based medication that decreases opioid use disorder (OUD) mortality and increases treatment retention.<sup>1</sup> Yet, every patient does not have routine access to this lifesaving medication. Despite the removal of the DATA waiver allowing for any DEA licensed prescriber to treat OUD with buprenorphine, patients face difficulties in the pharmacy due to insufficient stock from order limits and policies intended to reduce opioid use and diversion.<sup>2-5</sup>

Community pharmacists are one of the most accessible healthcare providers, with 89% of the US living within five miles of a pharmacy.<sup>6</sup> When buprenorphine barriers are removed, physician-pharmacist collaboration expands medication access and optimizes care, and patient satisfaction is generally high.<sup>7-10</sup> However, a case study of 14 pharmacies found that 80% would not fill buprenorphine for new patients or at all.<sup>11</sup> The extent access issues affect patients is a public health concern.

The patient's ability to pinpoint medication availability within the pharmacy has not been systemically evaluated. Previous findings may have been affected by pharmacy type (chain vs independent) within a

geographic area or regional attitudes/policies. To better understand patient medication access issues, this cross-sectional study assessed Suboxone (Indivior Inc., North Chesterfield, VA) availability in community pharmacies throughout the entire state using a secret shopper model. Suboxone is a first-tier formulary agent on the preferred drug list for Maryland Medicaid. Data from this project allowed for the development of a pilot to assess the feasibility of focused pharmacy visits completed by pharmacists to better identify workflow barriers that might affect patient medication access.

### Methods

This is a cross-sectional study using a secret shopper model to determine whether Maryland community pharmacies had Suboxone for pick up that day or next. The study was deemed non-human subjects research by the University of Maryland Institutional Review Board.

#### Sample selection and recruitment

The Maryland Board of Pharmacy provided active pharmacy permits and addresses as of May 2022. Public-facing pharmacies, a community

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pharmacy where an individual could walk-in and obtain prescription medication, were identified. Hospital, member-only (prescriptions filled for specified individuals such as employees, students, or clinic patients), and mail-order pharmacies were excluded. Since calls were made through the fall of 2022, pharmacies without active permits as of October 2022 were also excluded.

#### *Secret shopper calls*

Based on prior research, a primary outcome variable defined as Suboxone availability and a secret shopper model was used to call each pharmacy.<sup>12,13</sup> A secret shopper is a trained auditor posing as a pharmacy patient/customer. A call script (Fig. 1) and electronic visit data form were developed using interprofessional input from community pharmacists, addiction experts, and DATA-waivered prescribers.

The pharmacy call script was designed to reflect a lay person's real-

**Instructions:** Start with the script and do not volunteer any additional information unless asked. Only volunteer additional information as included in the script, after being asked.

#### **Script:**

**When call is answered, say "Hi. I have a medication question. Can I speak to the pharmacist?"**

If the technician asks if he/she can help, just request to speak to pharmacist again politely.

**When pharmacist gets on the phone, say**

- ***"I wanted to find out if you had Suboxone film '8 slash 2 M G film'. I'm looking to pick up today or tomorrow." (note say "M" "G" not milligrams like you are reading from a written note)***

**Only use this information if requested.**

- **Patient history:** my brother is getting out of a treatment program today or tomorrow. I wanted to find out if you have his medication.
- **Pharmacist potential additional questions**
  - **Name?**
    - Chris Fields
  - **Date of birth/age?**
    - March 10, 1993/29 years old
  - **How much/how will they take?**
    - He will be taking once a day for at least a week.
  - **Insurance?**
    - Medicaid. If they ask what plan say not sure but I will tell my brother to bring card.
  - **Allergies?**
    - none
  - **Doctor name?**
    - Not sure
  - **Rehab info?**
    - Not sure of name but in the area. Can call back with the name
  - **Address?**
    - We are still working out where they will live but need to at least get the first prescription
  - **Any other medications?**
    - No. Not taking any other medications.
  - **Patient been there before?**
    - No
  - **Any other questions?**
    - If appropriate, he will bring that information when he comes into pharmacy

**Fig. 1.** Script for pharmacy calls.

world experience. The “patient” was insured by Maryland Medicaid, since this is the largest payer for OUD treatment.<sup>14</sup> Suboxone was chosen based on first-tier formulary status and no requirement for prior authorization (Note: generic buprenorphine/naloxone requires prior authorization.)<sup>15</sup>

The call script was initially tested by researchers before research assistants began data collection. Within one week of receiving training, one research assistant made calls and provided feedback on the process which was used to further clarify instructions. After receiving the script and attending standardized training, 7 research assistants called pharmacies during various times throughout business hours, asked to speak directly to a pharmacist, and inquired about availability of Suboxone for pick-up that day or next. Responses were recorded in Qualtrics®, a software tool that allows data input online or with a smart phone, using drop down menus, multiple choice, and text boxes.

A convenience sample of 18 pharmacies, where Suboxone was unavailable, were selected for in-person visits by a community pharmacist with academic detailing training to inquire about medication availability and dispensing barriers. These visits were intended to gather additional information about all buprenorphine/naloxone formulations stocked and explore patient barriers. In addition, the academic detailer shared information and resources about OUD treatment and harm reduction. After the visit, pharmacy staff were asked to complete an anonymous survey, assessing satisfaction and willingness to implement practice changes. Documentation was completed in Qualtrics®.

### Statistical analysis

A descriptive analysis of the pharmacy (region, pharmacy type) and call (did pharmacist ask for any information) characteristics are reported using proportions with a univariate analysis comparing these characteristics among pharmacies that confirm availability of Suboxone with those that do not. A multivariable binomial logistic regression included pharmacy and call characteristics with  $p \leq 0.1$  from univariate analyses. A summary of information from the in-person visits is described.

## Results

After excluding non-public-facing pharmacies ( $n = 166$ , 13.4%) and those with inactive permits ( $n = 19$ ), 1053 pharmacies remained (Fig. 2). Researchers reached 99% ( $n = 1043$ ) of Maryland pharmacies. Calls were placed every day of the week (Sunday through Saturday) and ranged from 9 am to 11 pm. Call duration was under 5 min for 68.6% of calls. Pharmacists most frequently asked for directions for use ( $n = 158$ ), whether existing patient ( $n = 128$ ) and patient name ( $n = 96$ ).

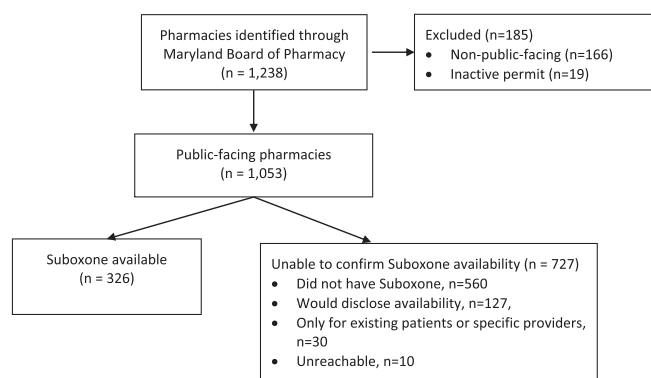


Fig. 2. Flowchart of Pharmacy Selection.

### Primary outcome

Suboxone was available for pick-up in 31% ( $n = 326$ ) of pharmacies (Fig. 3). The remaining 727 pharmacies included 10 unreachable and 717 that did not have ( $n = 560$ ), would not disclose ( $n = 127$ ), or had limited access such as existing patients or specific providers only ( $n = 30$ ). Univariate comparisons found significant differences in Suboxone availability by region ( $p < 0.0001$ ), and whether any information was asked by the pharmacist ( $p < 0.0001$ ) (Table 1). The multivariable binomial logistic regression model included characteristics with  $p \leq 0.1$  (region, pharmacy type and any information asked) (Table 1). Significant differences in Suboxone availability were found (odds ratio, 95% confidence interval) for region (National Capital 0.51 [0.35, 0.73] vs. Baltimore metro [reference], and any information asked (yes 3.51 [2.65, 4.65] vs. non [reference]).

### In-person visits to pharmacies

Visits were made to pharmacies that stated they did not have Suboxone available for pick-up. From a convenience sample of 18 pharmacies representing three regions, 11 pharmacy visits were completed. The visiting pharmacist asked to speak with the pharmacist and staff. All but one pharmacy told the visiting pharmacist that they had Suboxone stocked. One of the 10 pharmacies noted medication was only available for current patients. Four pharmacies stated they would not confirm availability if a patient called inquiring about buprenorphine/naloxone. Several pharmacy staff reported barriers to stocking and dispensing buprenorphine/naloxone. Two pharmacies shared that they experience delays when ordering buprenorphine/naloxone and tablets are in short supply. Also noted was that Maryland Medicaid requires brand Suboxone, which is cost-prohibitive to stock. Other barriers to providing this medication for patients included concerns for diversion and pharmacy store policy.

Five staff members (4 pharmacists and 1 technician) completed the anonymous survey. All replied “yes” to “Overall, did you find the visit helpful?” and four noted that the visit improved their willingness to stock buprenorphine/naloxone.

## Discussion

Suboxone availability could not be confirmed in 69% of Maryland pharmacies. To these authors’ knowledge, this is the first project assessing the patient’s ability to determine Suboxone availability in all community pharmacies throughout a state. Patients visiting pharmacies in the National Capital, an urban/suburban region, may be at higher risk for experiencing access issues. Data from this study did not support a difference between type of pharmacy (chain versus independent). Previous literature presented variable results. In Maryland, a sample of 136 pharmacies found that ~95% of pharmacists reported stocking medications to treat OUD, and there was no significant regional or type of pharmacy differences among those who did not.<sup>16</sup> Similarly, 96% of North Carolina pharmacists reported stocking buprenorphine routinely or ordering as warranted.<sup>3</sup> A Texas pharmacy audit found buprenorphine/naloxone available in 42.2% of contacts, with the most pronounced variations in independent pharmacies.<sup>5</sup> A cross-sectional, pharmacy survey conducted by clinical staff found that 58% stocked buprenorphine with chains more likely and significant variability between pharmacy organizations and states.<sup>17</sup> These study differences may be partially explained by design variations, geographic definitions (rural vs urban), multiple outcome variables to assess medication availability, and inconsistent definitions for chain and independent pharmacies but suggest the issue extends beyond one region.

Pharmacists are charged with providing safe patient care including identifying and preventing diversion, which may impede dispensing.<sup>18</sup> When pharmacists asked for additional information, they were 3.5 times more likely to confirm Suboxone availability. The commonly asked

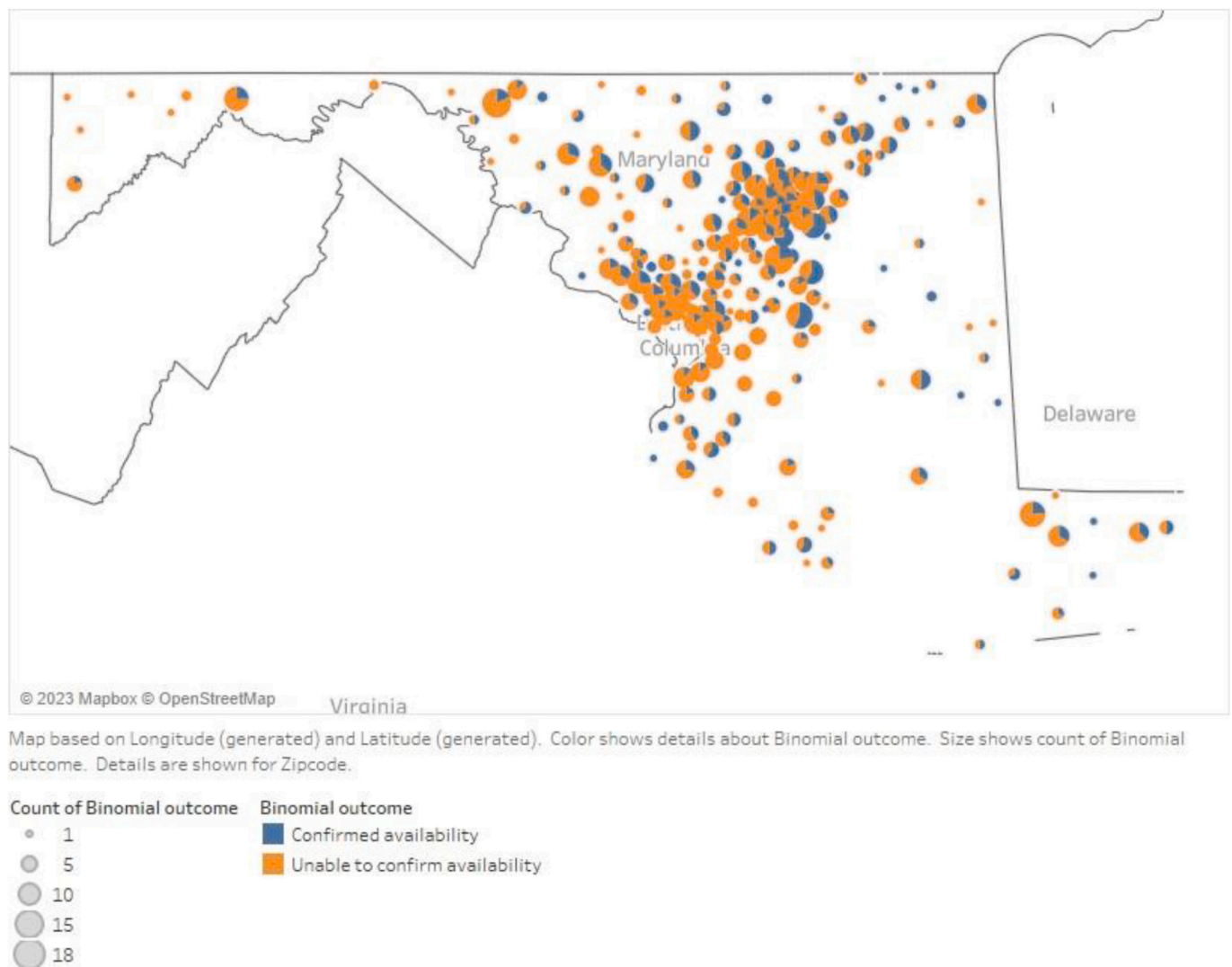


Fig. 3. Distribution of Maryland Pharmacies by Suboxone Availability.

Table 1

Suboxone availability in Maryland community pharmacies.

Characteristic	Total (n = 1053)	Buprenorphine/naloxone availability		Univariate analysis, p-value	Multivariable binomial logistic regression, Odds ratio (95% CI), p-value*
		Confirmed availability (n = 326)	Unable to confirm availability (n = 727)		
<b>Region, n (%)</b>				p < 0.0001	
Baltimore metro	516 (49)	182 (55.8)	334 (45.9)		Reference
Eastern Shore	92 (8.7)	39 (12.0)	53 (7.3)		1.37 (0.85–2.21), p = 0.2
National Capital	271 (25.7)	56 (17.2)	215 (29.6)		0.51 (0.35–0.73), p = 0.0002
Northwest	112 (10.6)	29 (8.9)	83 (11.4)		0.71 (0.44–1.15), p = 0.2
Southern	62 (5.9)	20 (6.1)	42 (5.8)		1.09 (0.60–1.98), p = 0.8
<b>Pharmacy type, n (%)</b>				p = 0.06	
Chain (10+ stores)	711 (67.5)	207 (63.5)	504 (69.3)		0.78 (0.58–1.05), p = 0.1
Independent (<10 stores)	342 (32.5)	119 (36.5)	223 (30.7)		Reference
<b>Any information asked, n (%)</b>				p < 0.0001	
No	585 (55.6)	113 (34.7)	472 (64.9)		Reference
Yes	468 (44.4)	213 (65.3)	255 (35.1)		3.51 (2.65–4.65), p < 0.0001

\* Model fit: Hosmer and Lemeshow  $\chi^2 (7) = 11.8, P = 0.1$ .

questions suggest pharmacists were assessing prescription validity and existing stock. Inability to confirm medication availability is a complicated issue. Limited access to treatment is a commonly cited reason for the use of diverted buprenorphine.<sup>19</sup> In contrast, pharmacists' duty to

validate prescriptions may be included as a measured pharmacy policy to reduce diversion. Facing audits and fines for inappropriate dispensing of opioids, pharmacies have implemented check systems. Telehealth has expanded treatment access for patients with OUD but can trigger

pharmacy diversion red flags.<sup>20</sup> The extent in which pharmacists refuse to fill buprenorphine/naloxone prescriptions is unclear and varies based on the data source.<sup>11,12</sup>

The fact that pharmacies did not confirm Suboxone availability may not demonstrate a paucity of medication, as most visited had Suboxone stocked. Instead, it may represent concerns with providing information over the phone or supply reserved for current patients. Difficulty obtaining medication forces patients to search for pharmacies, leading to treatment lapses and morbidity.<sup>21</sup> Thus, prescribers and pharmacists need to ensure access by developing collaborative relationships to optimize care and improve patient satisfaction. Prescribers and pharmacists should be prepared to better educate. Patients should be informed that pharmacies may ask if they are an existing customer and more likely to fill when confirmed. Obtaining prescriptions from a single pharmacy benefits the patient and allows for optimized care including identification of drug interactions. Patients should also be prepared to answer questions about prescription instructions.

### Limitations

Suboxone was chosen based on preferred formulary status within Maryland Medicaid and may not represent access to other formulations. However, this medication served as a realistic assessment of issues a patient might face and is consistent with best practices for secret shopper study design. While pharmacy visits provided insight into access issues, findings from a small convenience sample should be interpreted with caution.

### Conclusion

Timely access to medication is an important public health issue. Sixty-nine percent of patients may face challenges when calling to assess whether they can obtain Suboxone in Maryland. In-person pharmacy visits could provide a more thorough investigation of pharmacy-system and workflow barriers, but a more robust and representative sample is needed. Future research should determine targeted solutions to address challenges and support patients to ensure timely access to treatment.

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### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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