

# BUPRENORPHINE DISPENSING AMONG WOMEN OF REPRODUCTIVE AGE IN THE U.S. BY PROVIDER TYPE, 2013-2022

## KEY POINTS

- The number of women of reproductive age with buprenorphine prescription fills for opioid use disorder increased from 218 per 100,000 in 2013 to 373 per 100,000 in 2022.
- The average yearly increase in the number of women of reproductive age with buprenorphine prescription fills between 2013 and 2022 was 6%.
- From 2013 to 2020, primary care physicians were the most prevalent prescribing clinician specialty. Until 2019, behavioral health clinicians were the second most common prescriber type.
- In 2019, nurse practitioners and physician assistants surpassed behavioral health clinicians in prescribing rates, and in 2021 they surpassed primary care physicians to become the most common prescriber type.

## POLICY ISSUE

Drug overdose deaths among women of reproductive age (15-44 years old) in the United States increased by 38% between 2017 and 2020. Notable increases in synthetic opioid-related deaths among pregnant women occurred in 2020, rising from 5.73 per 100 000 to 9.47 per 100 000 pregnancies, representing a 65.3% from 2019<sup>1</sup> and demonstrating increased need for opioid use disorder (OUD) treatment among women of reproductive age.

Buprenorphine is a first-line medication for opioid use disorder (MOUD) treatment option during pregnancy and the postpartum period and is associated with improved maternal and child outcomes.<sup>2,3</sup> However, there is limited research on levels and patterns of buprenorphine use for OUD among women of reproductive age. One study found 3.66 per 1,000 women across the full age spectrum were treated with buprenorphine in 2018.<sup>4</sup>

Over the last decade, a wide and shifting range of clinicians has taken on increasing levels of buprenorphine prescribing for the overall patient population.<sup>5,6</sup> Buprenorphine use among all patients is increasing,<sup>4</sup> but little is known about which clinician types are most likely to prescribe buprenorphine for women of reproductive age. This is a critical knowledge gap that, if filled, could help better direct provider outreach efforts and make MOUDs as broadly accessible as possible for reproductive age women. Therefore, this study describes national trends in buprenorphine dispensing among women of reproductive age by clinician type over the last decade.

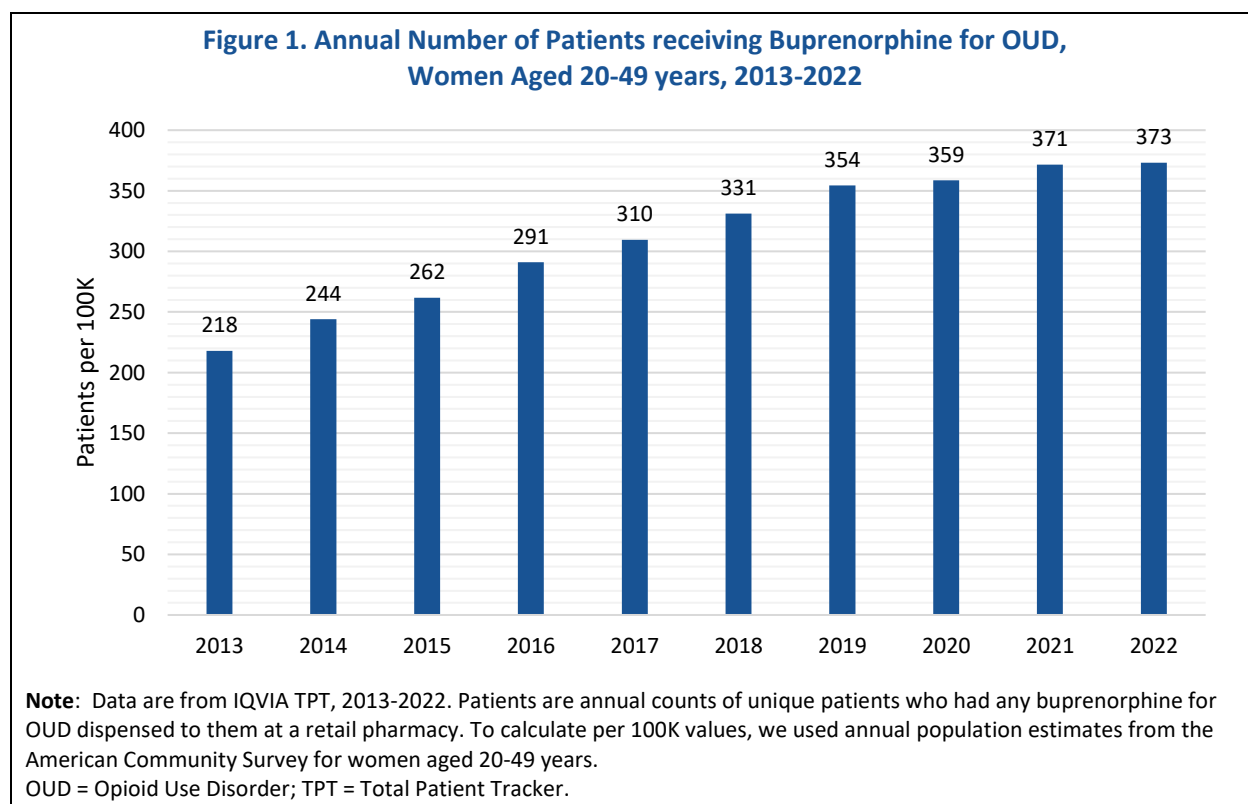
## STUDY DESIGN

We analyzed 2013-2022 IQVIA Total Patient Tracker (TPT) data, which covers 93% of all prescriptions dispensed in retail pharmacy settings in the United States. We extracted data on the number of reproductive age women with buprenorphine prescription fills for OUD (excluding formulations for pain management)

annually. In this analysis, reproductive age was defined as 20-49 years old.<sup>a</sup> In cross-sectional analyses, we traced yearly buprenorphine dispensing trends by the following groups of prescribing clinician types:<sup>b</sup> behavioral health clinicians (addiction medicine, psychiatrist, psychology); primary care physicians (family practice, general practice, internal medicine, osteopathic medicine); obstetricians and gynecologists (OB/GYNs); physician assistants (PAs) and nurse practitioners (NPs);<sup>c</sup> emergency medicine; pain medicine; surgery; and other providers. In TPT data stratified by clinician type, IQVIA identifies unique patients within each clinician category. Because the same person could receive buprenorphine prescriptions from more than one clinician type, data stratified by clinician type are not necessarily mutually exclusive and could sum to more than the totals reported regardless of provider type. (For example, if a 33-year-old woman in the current study sample received one buprenorphine prescription from an internist and another from a psychiatrist in 2019, she would be counted once in the overall 2019 data but twice in the clinician-stratified 2019 data. She would be counted in both clinician categories rather than assigned to just one or the other.)

## FINDINGS

Between 2013 and 2022, the number of women of reproductive age with buprenorphine prescription fills increased steadily from 218 per 100,000 to 373 per 100,000, with an average yearly increase of about 6% during the study period (**Figure 1**). For 2014-2016, the annual increases were about 12%, 7%, and 11%. By 2020-2022, however, the rate of increase slowed to about 1%, 4%, and <1% year-over-year.



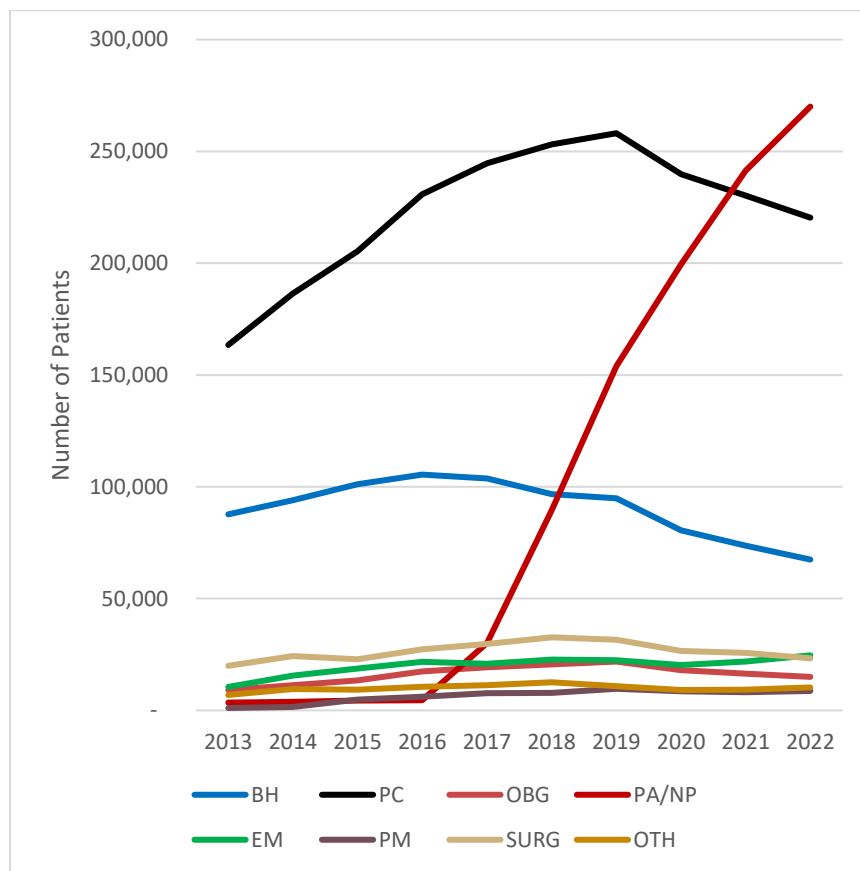
<sup>a</sup> Varying age ranges are used to identify reproductive age. We used 20-49 years in this study based on the measures of age available in the prescription drug data we analyzed.

<sup>b</sup> “Clinician” and “prescriber” are used interchangeably in this brief.

<sup>c</sup> For PAs and NPs, the clinical specialty or setting type in which they practiced (e.g., primary care, specialty care, etc.) was not known.

From 2013 to 2020, primary care physicians (family practice, general practice, internal medicine, osteopathic medicine) were the most prevalent prescribing clinician type, followed by behavioral health clinicians (psychiatrists, psychologists, addiction medicine specialists) (**Figure 2**). After 2020, NPs and PAs became the largest prescribing clinician type. In fact, prescribing by NPs/PAs started to increase in 2017 (after the Comprehensive Addiction and Recovery Act of 2016 expanded prescribing authority to NPs/PAs), and by 2019 fills from NPs/PAs overtook those from behavioral health clinicians. OB/GYN clinicians accounted for the third fewest number of patients treated with buprenorphine in 2022 (about 15,000 patients, or about 6% as much as PAs and NPs, 7% as much as primary care, and 22% as much as behavioral health). The heterogeneous “Other” category accounted for the second fewest number of patients treated with buprenorphine in 2022. Pain medicine clinicians accounted for the smallest number of patients treated with buprenorphine in 2022 (about 8,700 patients, or just 57% of the third smallest group, OB/GYN).

**Figure 2. Trends in Annual Number of Patients receiving Buprenorphine for OUD by Clinician Type, Women Aged 20-49 years, 2013-2022**



**Note:** Data are from IQVIA TPT database, 2013-2022.

Estimates for each prescribing clinician type are not mutually exclusive but indicate the number of unique patients receiving buprenorphine within that clinician type. The same patient could receive buprenorphine from more than one clinician type. Therefore, counts for each clinician type may sum to more than the overall totals.

BH = Behavioral Health; EM = Emergency Medicine; OBG = Obstetrics and Gynecology; OTH = Other; OUD = Opioid Use Disorder; PA/NP = Physician Assistant and Nurse Practitioner; PC = Primary Care; PM = Pain Medicine; SURG = Surgery.

## DISCUSSION

In this study of national retail pharmacy data from 2013 to 2022, we found an overall increase in buprenorphine dispensed to women of reproductive age and a marked increase in fills that were prescribed by NPs and PAs.

Prior to January 2023, providers could only prescribe buprenorphine after applying for, and receiving, a Drug Addiction Treatment Act (DATA) of 2000 waiver (also referred to as the “X-waiver”) together with adhering to additional federal requirements such as provider specialty restrictions, patient limits, and certification related to provision of counseling. In April 2021, the U.S. Department of Health and Human Services issued new Practice Guidelines for the Administration of Buprenorphine for Treating Opioid Use Disorder, which removed certification requirements related to training, counseling and other ancillary services for obtaining a DATA waiver to prescribe buprenorphine. In January 2023, the Consolidated Appropriations Act (Section 1262) altogether eliminated the need for a buprenorphine prescribing waiver and patient limits, thus removing an important clinician-level barrier to prescribing buprenorphine and potentially increasing treatment capacity and access.<sup>7</sup> Integrating MOUD within a variety of practice settings (other than substance use disorder [SUD] specialty settings) where patients may already have trusting relationships with clinicians can reduce barriers such as provider mistrust and improve patient-clinician interactions to reduce perceptions of stigma and increase initiation.<sup>8</sup> For example, screening and prescribing during primary care visits for reproductive age women may increase access and initiation of OUD treatment and, in case of a future pregnancy, prevent adverse maternal and infant health outcomes associated with OUD.

Our finding showing a large increase in prescribing by NP/PAs signifies the importance of mid-level clinicians in expanding access to treatment among women of reproductive age. However, we also found low rates of prescribing by OB/GYNs. This may suggest a need for additional training of OB/GYNs in screening and referral for treatment of OUD, together with training of additional maternity care providers such as PAs and nurse midwives to recognize and respond to signs of OUD in women’s health care. A number of evidence-based delivery models for integrated maternal and SUD care exist and could be brought to scale: Ohio’s Maternal Opiate Medical Supports Plus model, for example, is an evidence-supported approach combining MOUD, behavioral health therapy, and access to OB/GYN care to achieve truly integrated SUD and reproductive health care.<sup>9</sup> In addition, family-centered SUD treatment programs that provide treatment services for women and their families and linkages with non-clinical support services such as housing, transportation, employment, and childcare are particularly critical in improving access to care for women with OUD.<sup>10</sup>

## LIMITATIONS

A study limitation is the use of retail pharmacy dispensing data that does not capture prescriptions filled or dispensed elsewhere, such as opioid treatment programs. The results may therefore not be generalizable to all reproductive-aged women with OUD seeking treatment. The data also lacks patient demographic and clinical characteristics; thus, we were unable to study differences across demographic groups (e.g., by race/ethnicity), which remains an important area for future research.

## CONCLUSION

The number of women of reproductive age with buprenorphine prescription fills for OUD increased by about 71% from 2013 to 2022. From 2013 to 2020, primary care physicians were the most prevalent prescribing clinician type. Until 2019, behavioral health clinicians were the second most common prescribers. In 2019, NPs and PAs surpassed behavioral health clinicians, and in 2021 they surpassed primary care physicians to become the most common prescribing clinician type for the last two years of this study.

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