

# Buprenorphine Prescribing and Buprenorphine and Methadone Exposure Patterns Before and During COVID-19

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## Abstract

**Background:** The COVID-19 pandemic has impacted treatment for substance use disorder, while increases in opioid overdose rates have accelerated. In response to challenges around stay-at-home orders and social distancing needs, some buprenorphine and methadone prescribing and dispensing requirements were relaxed to improve access to these potentially life-saving medications. Examples include expansion of telehealth services and less restrictive policies around “take-home” methadone doses. With these changes, however, come potential safety concerns about misuse and abuse of these medications, as well as ingestion by children in the home.

**Purpose:** To describe buprenorphine dispensing trends and examine U.S. poison control center cases involving buprenorphine and methadone unintentional pediatric, misuse, and abuse exposures. Poison center cases are updated in near real-time, allowing for timely examination of changes occurring since the beginning of the pandemic.

**Methodology:** Dispensing data were extracted from Symphony Health Metys™. Weekly estimates of buprenorphine prescriptions dispensed for opioid use disorder from U.S. retail, mail-order/specialty, and long-term care pharmacies were examined from December 2019-December 2020. Cases from January 2018-September 2020 were extracted from the National Poison Data System, which houses data from the nation’s 55 Poison Control Centers (PCC). Micromedex product codes were used to identify human exposure cases involving buprenorphine and methadone.

**Results:** Buprenorphine dispensing patterns showed no meaningful changes following the onset of the pandemic in March 2020. Similarly, PCC data showed no notable changes in monthly cases of buprenorphine or methadone misuse or abuse. The data did suggest a possible increase in pediatric (≤ five years) unintentional methadone exposures; however, absolute numbers remained low (<20 cases per month). Buprenorphine pediatric unintentional exposure case numbers ranged from 84-125 per month, with a possible uptick during the second half of 2020.

**Conclusion:** There were no notable changes in buprenorphine dispensing or in PCC cases involving buprenorphine or methadone abuse or misuse following the onset of the COVID-19 pandemic and associated changes in management of opioid use disorder. The data do suggest a possible uptick in pediatric unintentional exposures to these medications; however, ongoing surveillance and time series analyses are needed to further evaluate this signal.

## Introduction

- COVID-19 and the measures taken to prevent its spread are having profound social and economic effects that can create hazards for public health
- Opioid overdose rates have accelerated across the country
- Stay-at-home orders and social distancing needs prompted changes in prescribing and dispensing requirements for buprenorphine and methadone, including allowing telehealth services and less restrictive policies around take-home methadone doses
- COVID-related restrictions and lifestyle changes may be associated with changes in misuse and abuse and potential safety concerns, such as accidental ingestion by children
- Timely data are needed to inform regulatory decisions related to dispensing trends and misuse, abuse, and unintentional cases involving buprenorphine and methadone

## Methods

Symphony Health Metys™

- Weekly estimates of buprenorphine prescriptions labeled for opioid use disorder from U.S. retail, mail-order/specialty, and long-term care pharmacies from December 2019-December 2020

Poison Control Center (PCC)

- Monthly counts of misuse, abuse, and unintentional cases were extracted from January 2018-September 2020
- Unintentional exposures were restricted to ages five and under
- Codes used for data extraction were gathered from Micromedex

## Results and Discussion

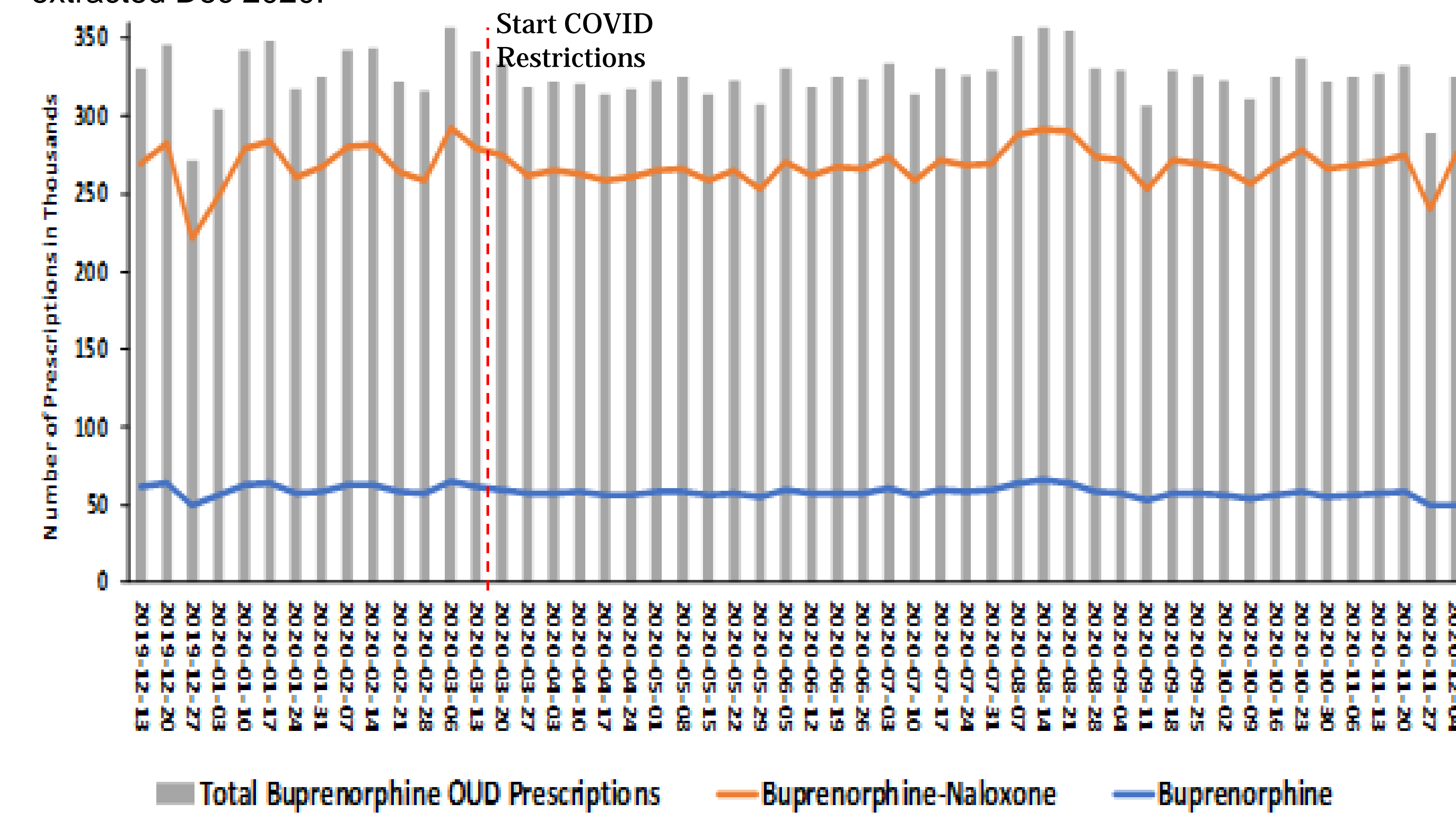
Symphony Health Metys™

- Buprenorphine dispensing patterns showed no meaningful changes in the weeks following the onset of the pandemic in March 2020 (Figure 1).

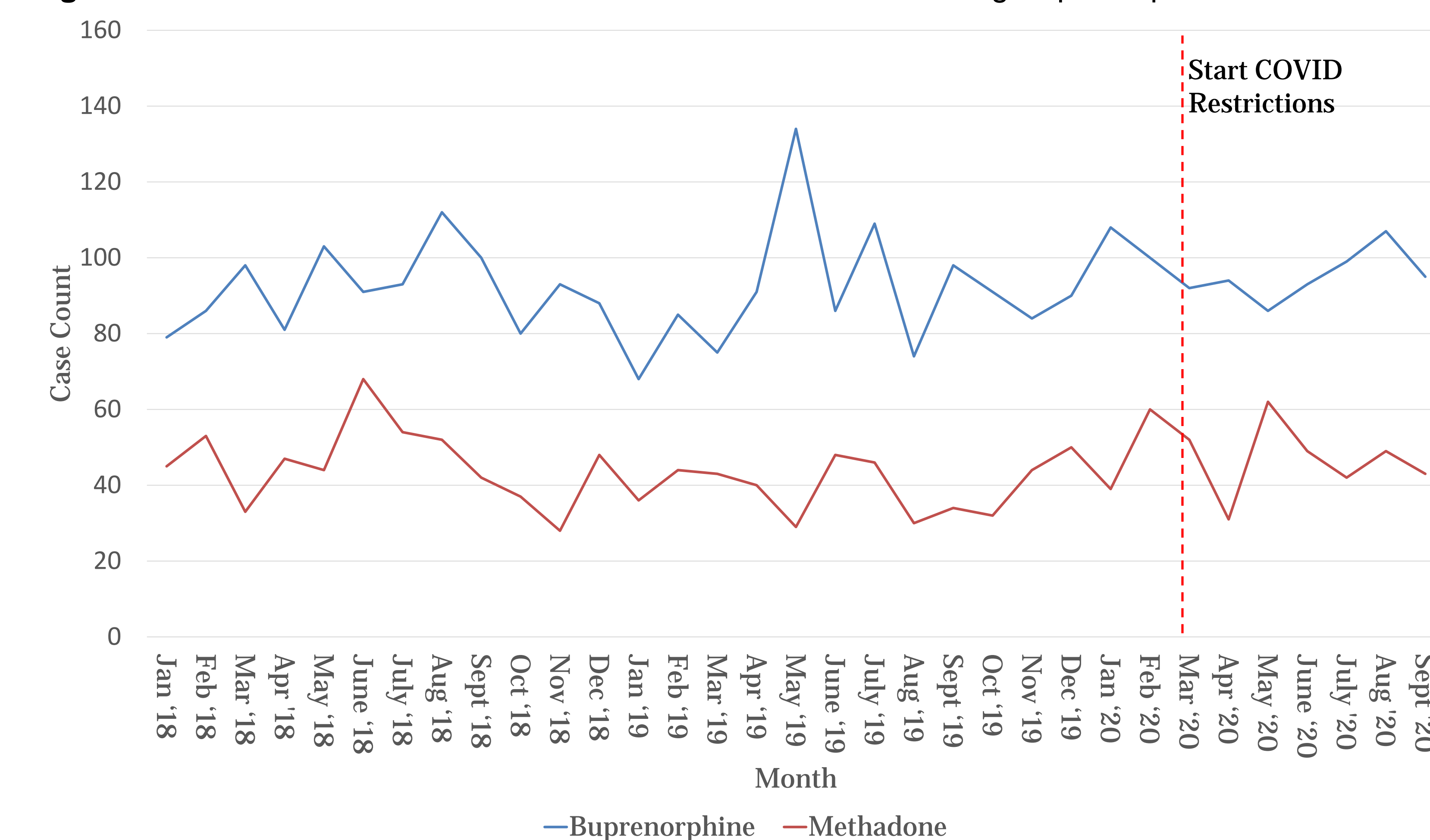
PCC

- Misuse and abuse PCC cases showed no notable changes in monthly cases for buprenorphine or methadone (Figure 2).
- There has been a possible increase in pediatric (≤ five years) unintentional methadone (Figure 3) and buprenorphine (Figure 4) exposures following the start of COVID restrictions
- Continued surveillance is needed to assess if there is a sustained increase in the number of unintentional exposure cases involving these drugs.

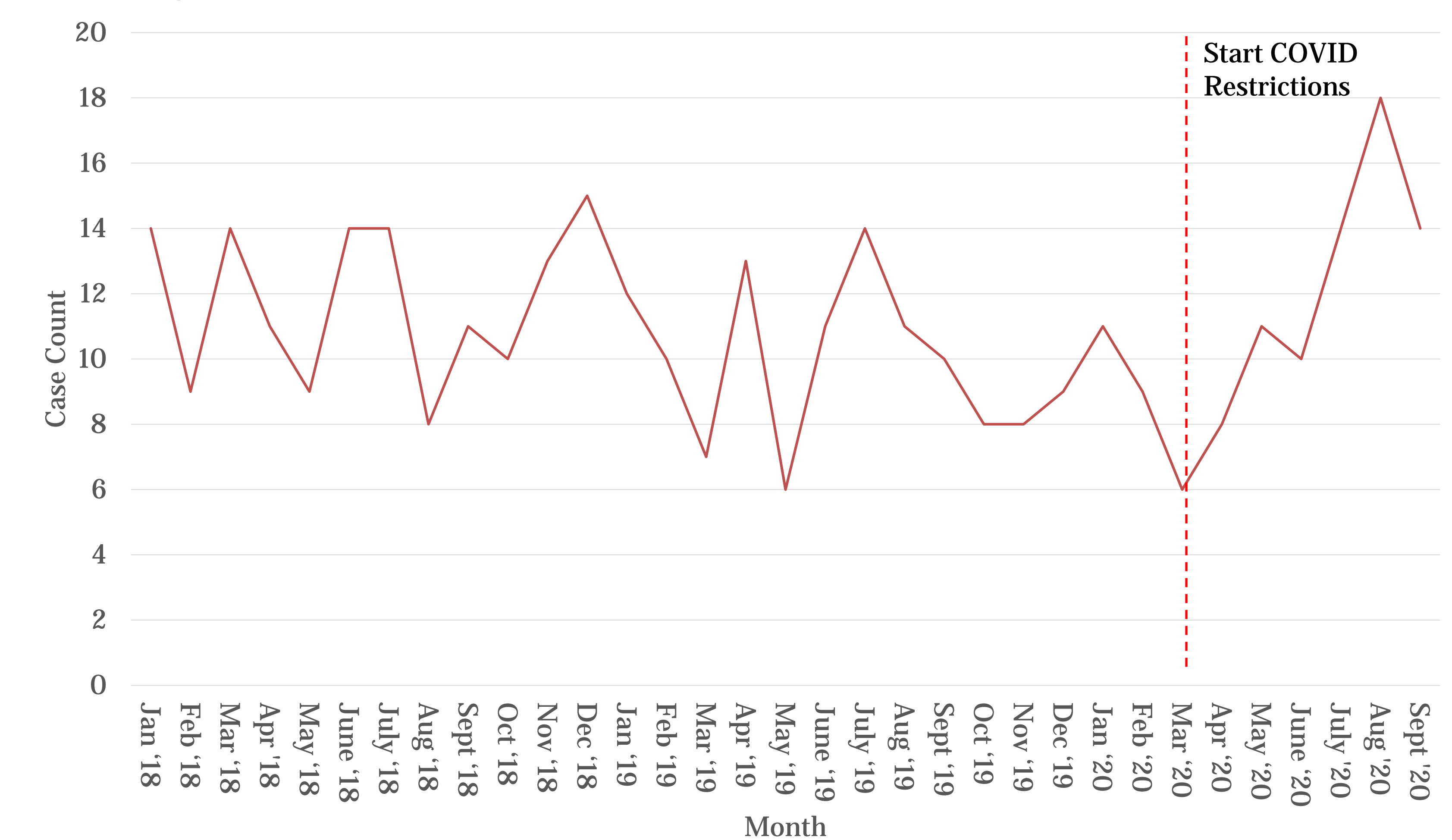
**Figure 1.** Symphony Health Metys™: Weekly estimates of buprenorphine OUD prescriptions. Data extracted Dec 2020.



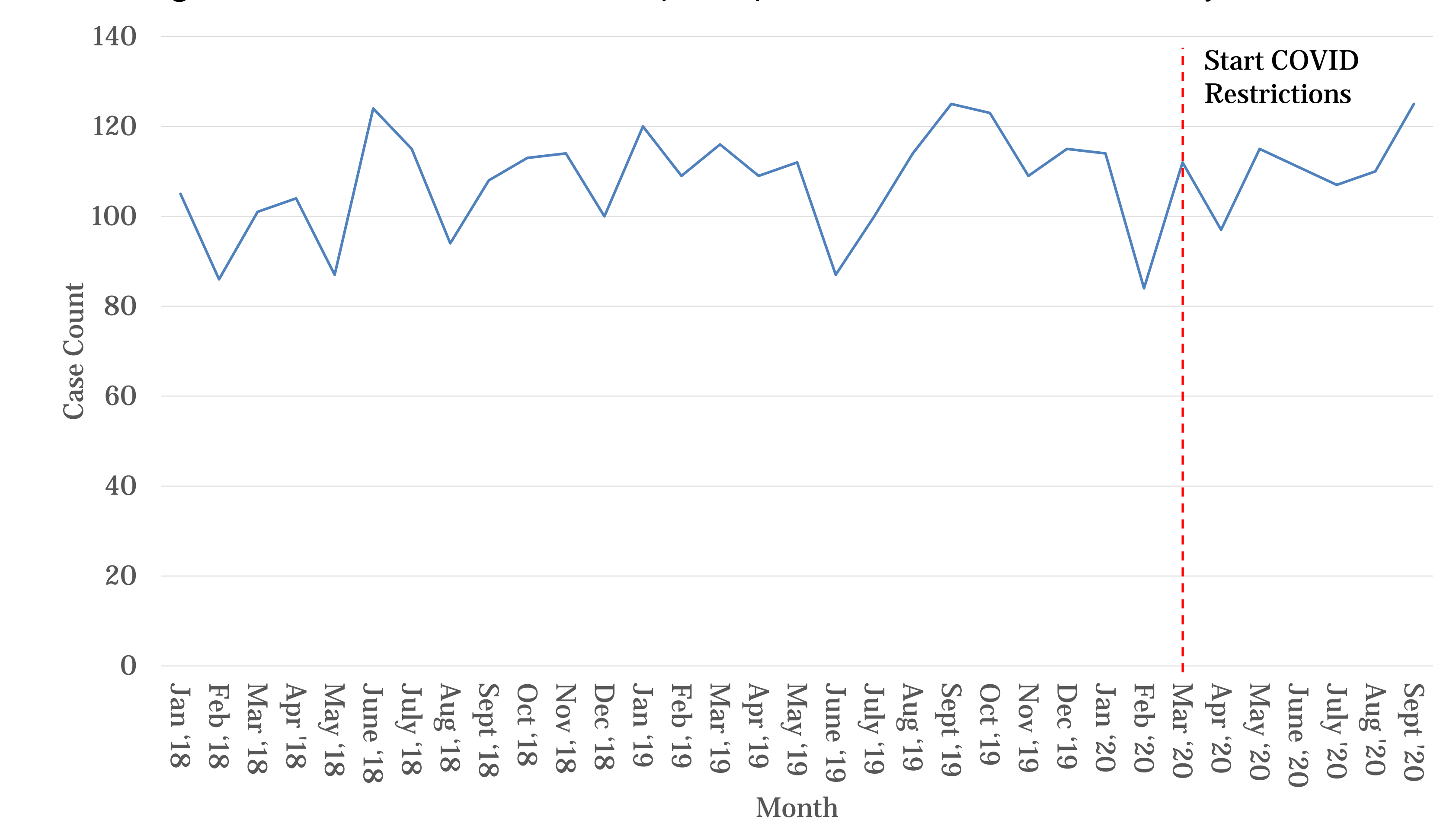
**Figure 2.** Poison Control Center: Misuse and Abuse Cases Involving Buprenorphine or Methadone



**Figure 3.** Poison Control Center: Methadone: Unintentional Cases, ≤5 years



**Figure 4.** Poison Control Center: Buprenorphine: Unintentional Cases, ≤5 years



## Conclusion

- COVID-19 has forced changes in opioid use disorder treatment and patient monitoring, warranting an examination of potential unintended consequences.
- There were no notable changes in buprenorphine dispensing or in PCC cases involving buprenorphine or methadone abuse/misuse following the onset of the COVID-19 pandemic.
- The data signal a possible uptick in monthly unintentional exposure cases among those aged ≤ 5 years involving methadone and buprenorphine, but additional data are needed. Updated analyses are underway using more recent case data to test for a significant change in trend.