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MEDICAID COVERAGE AND POSTPARTUM OPIOID USE DISORDER TREATMENT

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ABSTRACT

Opioid use disorder (OUD) among pregnant women in the United States has risen more than fourfold since 1999, making substance use a leading cause of maternal mortality. Medicaid finances the majority of births and substance use disorder treatment in the U.S., yet until recently, coverage typically ends 60 days postpartum, potentially disrupting care continuity. The American Rescue Plan of 2021 extends postpartum Medicaid coverage from two months to 12 months, creating a natural experiment to evaluate the impact of coverage on access to medications for OUD (MOUD), the gold-standard treatment. We use linked nationwide all-payer medical and retail pharmacy claims from IQVIA in a difference-in-differences framework comparing postpartum MOUD continuity between Medicaid- and commercially-insured parents with a prenatal history of MOUD use. Extended Medicaid postpartum coverage increases Medicaid-financed MOUD months by 8.55%, the likelihood of continuing MOUD beyond 60 days by 5.12%, and total MOUD supply days by 7.99%. These gains are slightly offset by other payer reductions, yet result in a net 5.10% increase in overall MOUD months and 4.64% rise in treatment adherence. Findings highlight the importance of coverage duration as a practical lever to sustain MOUD treatment in the crucial first year after delivery period.

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1 Introduction

Maternal mortality in the United States has risen substantially since 2000 ([Rossen et al., 2020](#)), reaching 22.3 deaths per 100,000 live births in 2022 ([Hoyert, 2024](#)). Although recent data show a decline, with provisional estimates indicating 18.3 deaths per 100,000 live births in the 12-month period ending March 2025 ([Ahmad et al., 2025](#)), the U.S. maternal mortality rate remains more than twice that of most other high-income countries ([Gunja et al., 2024](#)). Substance use disorders (SUD), particularly opioid use disorder (OUD), are now a leading cause of maternal death, largely due to preventable overdose deaths in the late postpartum period - defined as 43–365 days postpartum ([CMS, 2024](#); [Petersen et al., 2019](#)). Between 1999 and 2014, OUD among pregnant women quadrupled ([Kroelinger et al., 2019](#); [Haight, 2018](#)). Maternal OUD elevates risks of preterm birth, delivery complications, low birth weight, and neonatal abstinence syndrome ([Nørgaard et al., 2015](#); [Corsi et al., 2020](#); [CMS, 2024](#)). Medications for opioid use disorder (MOUD), considered gold-standard treatment, reduce overdose risk among pregnant and postpartum women, alleviate withdrawal stress for both the mother and fetus, and lower the likelihood of low-birth-weight infants ([Schiff et al., 2018](#); [Klaman et al., 2017](#); [McCarthy et al., 2017](#)), underscoring the importance of sustained access to evidence-based MOUD care in the postpartum period.

Medicaid plays a central role in financing both maternal and postpartum healthcare, as well as OUD treatment. Federal law requires all states to cover pregnant women with incomes up to 133% of the federal poverty level, or FPL ([Eliason et al., 2021](#); [Centers for Medicare & Medicaid Services, 2017](#)), although many states extend eligibility to higher income levels - median 200% of the FPL ([Kaiser Family Foundation, 2025b](#)). Medicaid maternity coverage almost universally includes MOUD therapy ([Gray and Moore, 2017](#)), alongside counseling and detoxification services. As a result, more than half of pregnant women entering OUD treatment rely on Medicaid ([Smith, 2025](#); [Martin et al., 2018](#)), with Medicaid financing the largest share of maternal substance use-related hospitalizations and a majority of the \$1.5 billion annual cost of neonatal abstinence syndrome ([Corr and Hollenbeak, 2017](#); [Patrick et al., 2015](#)). Although insurance continuity is essential for OUD treatment retention ([Saloner et al., 2017](#); [Meinhofer and Witman, 2018](#)), until recently Medicaid pregnancy coverage ended 60 days postpartum, creating a cliff in access to OUD care ([Daw et al., 2024](#)). Nearly one-quarter of women with Medicaid-financed births become uninsured after 60 days ([Daw et al., 2021](#)), and over half experience churning in and out of Medicaid coverage within six months ([Daw et al., 2017](#); [Daw and Sommers, 2018](#)). Some women retain Medicaid beyond 60 days postpartum through pathways such as Affordable Care Act (ACA) expansions ([Johnston](#)

et al., 2021; Eckert, 2020). Eligibility income thresholds are stricter for parents than for pregnant women, often forcing postpartum women to shift coverage or become uninsured at a particularly crucial time period (Ranji, 2019; U.S. Government Accountability Office, 2019). Even in ACA expansion states, 10% of postpartum women experience uninsurance after delivery (Daw et al., 2017), while uninsurance rates in the ten non-expansion states are more than double those in expansion states (Ranji et al., 2021). Nationally, many women losing postpartum coverage have incomes between 100% and 185% of the FPL - too high for Medicaid but too low (e.g., \$40,182 for a family of three) to afford commercial insurance. Affordable insurance may be particularly limited in non-expansion states - where adults with income between 100% and 138% of the FPL are not eligible for Medicaid and must instead rely on subsidized Marketplace plans (Eckert, 2020). Postpartum disruptions in OUD care due to loss of, or fragmented, coverage represent a potential missed opportunity to treat women with OUD at a time when they may be willing to engage with the healthcare system.

The COVID-19 Public Health Emergency (PHE) disrupted this long-standing coverage cliff. Under the Families First Coronavirus Response Act (FFCRA), states suspended Medicaid redeterminations from March 2020 through April 2023 (Gupta et al., 2024), effectively extending pregnancy Medicaid coverage nationwide for at least one year postpartum for births occurring through early 2022 (Weber et al., 2025; Swartz et al., 2025). Individuals enrolled in Medicaid as of March 2020, or newly eligible thereafter, retained coverage until at least April 2023, including those who gave birth as early as January 19, 2020, whose 60-day eligibility ended after the PHE began. Medicaid enrollment surged by 20% during the PHE eligibility suspension, reaching 87 million people by early 2022 (CMS, 2025). Building on this *de facto* experiment, the American Rescue Plan Act of 2021 authorized states to extend postpartum Medicaid coverage to 12 months beginning in April 2022, initially as a five-year option (Yarmuth, 2021; Kaiser Family Foundation, 2025c; Ranji et al., 2021). The Consolidated Appropriations Act of 2023 makes the extension permanent (United States: National Archives and Records Administration: Office of the Federal Register, 2022). Thus, even after the PHE ended and eligibility redeterminations resumed in April 2023, states can now provide 12 months of postpartum coverage, rather than 60 days, an option adopted by all states (Daw et al., 2024). Together, these changes arguably mark the most substantial reform to maternal Medicaid eligibility in decades.

Early research on pandemic-era Medicaid policies provides valuable insights but leaves key questions unresolved. Single-state and regional studies show that continuous eligibility under FFCRA reduces postpartum uninsurance and increases coverage continuity (Weber et al., 2025; Swartz et al., 2025). Complementary work demonstrates that policies reduc-

ing financial and time barriers — such as state ACA Medicaid expansions (Bellerose et al., 2022; Choi et al., 2021) and paid sick leave (PSL) mandates (Eisenberg et al., 2025) — can enhance healthcare engagement and retention, mechanisms that may similarly support postpartum MOUD continuity. In contrast, coverage losses following the post-PHE Medicaid “unwinding” lead to meaningful declines in overall MOUD utilization (Gupta et al., 2025). Nationwide evidence on whether extended Medicaid coverage increases postpartum continuity of MOUD remains scarce. This gap is critical: MOUD not only reduces maternal morbidity and infant complications, but also supports labor supply, household stability, and long-run healthcare spending (Hoang and Sledge, 2022). Postpartum coverage disruptions risk undermining these benefits, whereas extended coverage may yield both immediate health improvements and broader economic returns over the short- and long-term.

Building on this prior work, we provide the first nationwide population-level evidence on whether extended 12-month postpartum Medicaid coverage during the COVID-19 PHE affects continuity of MOUD. We use linked all-payer medical and institutional (Dx) and pharmacy (LRx) claims from IQVIA to test whether the suspension of Medicaid redeterminations, which effectively extends postpartum eligibility from 60 days to 12 months, increases MOUD continuity. Our main research design compares two cohorts of birthing women ages 18–50 with MOUD use during pregnancy: those with Medicaid-financed births (“treatment”) and those with commercially-financed births (“control”). We track three indicators of postpartum MOUD continuity 12 months postpartum: (1) number of months with MOUD use, (2) continuation beyond 60 days, and (3) annual adherence ratio, defined as the proportion of days covered by medication (Steiner and Prochazka, 1997; Centers for Medicare & Medicaid Services, 2021). A difference-in-differences framework compares outcomes across treatment and control groups before and after the onset of the PHE. In additional heterogeneity analyses, we examine whether the impact of extended postpartum Medicaid coverage on MOUD continuation may vary by two policy environments. First, state ACA Medicaid expansion may offer alternative, more generous coverage options to individuals otherwise at risk of losing Medicaid, potentially altering the effect of postpartum extensions. Second, state PSL mandates may increase access to care by providing employees — and their dependents — with financially protected time to seek treatment. Incorporating these policies into our analysis allows us to clarify the distinct pathways through which each may interact with postpartum Medicaid extensions. Given documented differences in maternal OUD treatment access by demographic and geographic context (Haight, 2018; Patrick et al., 2015; Roberts et al., 2023), we also explore whether policy impacts vary by beneficiary age and by urban versus non-metropolitan residence. We show similar results across a range of specification

checks and sensitivity analyses. These analyses include a triple-differences design using a pre-pandemic Medicaid–commercial cohort to net out secular pandemic shocks, restricting the analysis sample to pre-pandemic pregnancies to address endogenous fertility, and adding controls for concurrent policies to the regression specification.

Our study finds that among women with Medicaid-financed births, 12-month extended postpartum coverage during the COVID-19 PHE increases Medicaid-financed MOUD months by 8.55% and treatment adherence by 7.99%. Gains in Medicaid coverage are only slightly offset by declines in coverage in other payment sources, yielding a net 5.10% rise in overall MOUD months and a 4.64% increase in adherence. Given that MOUD costs can be substantial for at least some formulations - e.g., a median retail price of \$196 per month for transmucosal buprenorphine in 2022 (Flam-Ross et al., 2023), extended Medicaid coverage arguably provides meaningful financial protection for postpartum women who might otherwise face out-of-pocket costs that deter sustained treatment engagement. Increases in utilization are concentrated in non-expansion states and those without PSL mandates, highlighting the role of extended postpartum Medicaid coverage as a critical safeguard against coverage loss and treatment disruption in policy environments lacking other protections.

Our study addresses several critical knowledge gaps. First, the study provides the first nationwide analysis of extended postpartum Medicaid coverage during the COVID-19 PHE, leveraging all-payer claims data. This national scope enhances external validity and enables systematic assessment of heterogeneity by state policy context, including ACA Medicaid expansion and PSL mandates. Second, unlike prior work that has focused on general postpartum care utilization, we are the first to focus specifically on MOUD continuity. We evaluate continuity of a life-saving, evidence-based treatment during a period of heightened maternal vulnerability. Third, by using all-payer claims, we capture potential “crowd out” effects. Our results show net increases in overall MOUD use, rather than a simple shift across payers — evidence that Medicaid administrative data alone cannot provide. Fourth, our design supports stronger causal inference, including a difference-in-differences design comparing Medicaid and commercially covered births and a triple-differences specification incorporating a pre-pandemic Medicaid–commercial cohort to net out secular pandemic shocks. Finally, a comprehensive set of robustness checks support the credibility of our findings. Together, these contributions provide the most comprehensive evidence to date that extended postpartum Medicaid coverage increases sustained MOUD engagement without displacing other payer sources. By linking eligibility reforms to concrete increases in the use of evidence-based treatment, our findings highlight how Medicaid policy can advance maternal health and inform future state and federal policymaking.

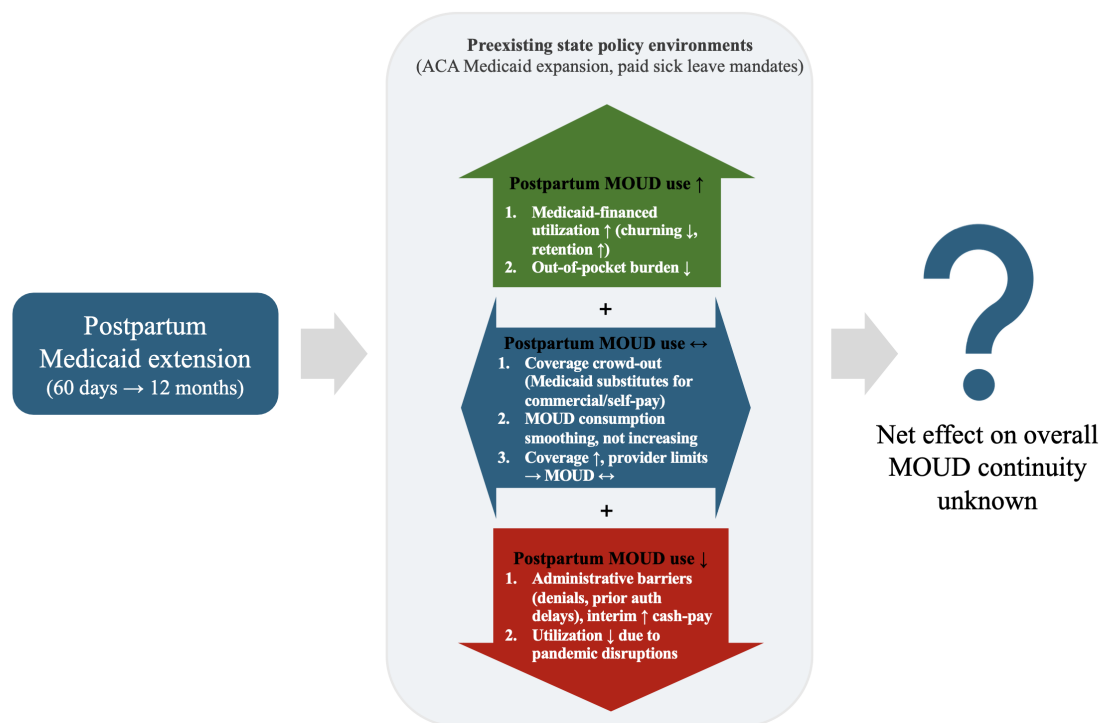
2 Conceptual Framework and Related Research

Figure 1 presents potential pathways that can either promote, hinder, or leave unchanged continuity of MOUD utilization following the Medicaid one-year postpartum coverage extension. Extending Medicaid postpartum coverage to 12 months may *increase* MOUD utilization by mitigating uninsurance and coverage “churn,” barriers that undermine treatment continuity, and thereby increase retention. Extended Medicaid coverage may also increase postpartum MOUD continuity by strengthening financial protection: Medicaid involves modest cost-sharing compared to commercial plans or self-pay. Patients who must pay fully out-of-pocket face the greatest financial barriers to consistent MOUD use, and higher cost-sharing burdens are associated with shorter treatment retention, with studies reporting up to a 34% higher likelihood of discontinuation among those in the highest versus lowest cost-sharing quartile (Strahan et al., 2023; Dunphy et al., 2021; Agbese et al., 2020; Leech et al., 2023). Therefore, shifting treatment costs to Medicaid could ease out-of-pocket burdens. Even if overall utilization remains unchanged, this protection may itself promote long-term adherence by reducing financial pressures that can drive discontinuation.

Extended Medicaid postpartum coverage may *decrease* MOUD utilization if this coverage raises short-term out-of-pocket costs. For example, broader Medicaid eligibility should reduce self-pay, but administrative hurdles, such as higher rates of temporary denials and prior authorization delays relative to commercial coverage (U.S. Department of Health and Human Services, Office of Inspector General, 2023; Saunders and Hinton, 2023; Agafiev Macambira et al., 2022; Muralidharan et al., 2025), can increase temporary cash payments required while Medicaid claims are pending, potentially discouraging treatment and reducing continuity. Additionally, extended Medicaid postpartum coverage during the COVID-19 PHE may appear to decrease MOUD continuity simply because policy implementation coincided with the pandemic, when mandated and voluntary social distancing disrupted healthcare delivery and utilization generally (Stephenson, 2020; McCracken et al., 2023).

Extended Medicaid postpartum coverage may leave overall postpartum MOUD utilization *unchanged* for at least two reasons. First, extended coverage may smooth rather than increase treatment utilization. Under the standard 60-day postpartum eligibility limit, women may front-load their use, for instance, by stockpiling refills or scheduling extra visits before coverage ends. Extending eligibility to 12 months could smooth, rather than increase, treatment utilization by supporting a steadier trajectory of treatment. Although prior work highlights that short coverage windows can deter initiation of new services, our focus is on continuity: for mothers already engaged in MOUD during pregnancy, longer coverage hori-

Figure 1: Conceptual framework of the impact of extended Medicaid postpartum coverage on Medication for opioid use disorder use



Notes: Conceptual illustration of potential mechanisms through which extending Medicaid postpartum eligibility from 60 days to 12 months may affect continuation of medication for opioid use disorder use. Arrows depict opposing pathways operating through financial protection, administrative frictions, and crowd out dynamics, each interacting with state-level policy context (ACA expansion and PSL mandates).

zons can provide assurance to sustain treatment through the high-risk postpartum period, when lapses can have serious maternal and infant consequences (Swartz et al., 2025). Second, overall treatment utilization may also not increase if public insurance expansions simply crowd out utilization that would have otherwise been supported by other types of coverage, for example, commercial insurance. Prior research on the Children’s Health Insurance Plan (CHIP) and ACA Medicaid expansions demonstrates substitution across payer sources (Cutler and Gruber, 1996; Hudson and Moriya, 2017). If postpartum Medicaid extensions replace other financing sources without drawing in previously untreated individuals, the net effect on overall MOUD utilization may be muted, even if financial protection improves.

Finally, state-level heterogeneity may moderate effects of federally supported extended postpartum Medicaid coverage on treatment utilization. As shown in related work on Medicaid expansions and other public insurance reforms, policy impacts depend on baseline coverage environments (Miller and Wherry, 2017; Sommers et al., 2017). In our context, the effects of extended postpartum coverage could differ by the presence of ACA Medicaid expansion and PSL mandates, which provide alternative forms of financial or time protection that can mitigate postpartum care disruptions. On one hand, the policy could yield larger effects in expansion states, where a broader eligibility base and existing infrastructure for Medicaid enrollment may enhance take-up and continuity of care during the postpartum year. Conversely, non-expansion states could experience stronger responses where baseline coverage is more constrained and the federal extension closes a more consequential gap in insurance continuity. Similarly, the presence of PSL mandates could attenuate the relative impact of postpartum Medicaid extensions by facilitating job-protected time off and greater treatment adherence among working parents, whereas the absence of such mandates may amplify the value of extended insurance coverage as the only safeguard against treatment discontinuity. Importantly, in all states, pregnancy-related coverage remains universal, but the duration, scope, and interaction with other social insurance policies differ substantially. Recognizing these contextual factors is essential for interpreting heterogeneity in policy impacts and identifying the environments in which postpartum Medicaid extensions most effectively reduce disruptions in treatment continuity. In addition to these state-level policy contexts, demographic and geographic access to care differences may further moderate policy effects. Younger postpartum beneficiaries and those in metropolitan areas may experience greater responsiveness to expanded Medicaid coverage given higher baseline treatment capacity and provider availability (Saloner et al., 2017; Muralidharan et al., 2025).

Taken together, extending postpartum Medicaid coverage may expand or reduce treatment, shift costs across payers, or simply smooth utilization without increasing overall

MOUD access. *A priori*, the extent to which extending coverage from 60 days to 12 months ultimately increases postpartum MOUD continuity is unclear. The net effect is therefore an empirical question - one we address using nationwide, all-payer claims data to examine how 12-month postpartum Medicaid coverage affected MOUD continuity, distinguishing true treatment gains from payer shifts and exploring heterogeneity in coverage expansion impacts across states with differing baseline social insurance policy environments.

3 Data

3.1 Data Sources

We primarily use linked medical and national retail pharmacy claims data January 2019-December 2022, from the IQVIA Longitudinal Prescription (LRx) and Medical Claims (Dx) databases.¹ We next describe these data sources.

The Dx database includes unadjudicated office medical claims for approximately 191 million patients each year, providing detailed patient-level data on diagnoses (using International Classification of Diseases, Tenth Revision [ICD-10] codes), procedures (using Current Procedural Terminology [CPT][®] codes), and in-office treatments, along with payer information, across U.S. office-based providers, ambulatory settings, and general healthcare sites (IQVIA Inc., 2023). The LRx database captures nearly four billion U.S. prescription dispensations annually, covering over 90% of nationwide retail pharmacy fills. Each prescription claim record documents the National Drug Code (NDC) for the dispensed medication, days of supply, and payer information. For both databases, payer information is classified as commercial, Medicare, Medicaid, or self-pay/cash (IQVIA Inc., 2021).

3.2 Sample Construction

To examine the effect of extended Medicaid postpartum coverage on postpartum MOUD continuity, we restrict the sample to female birthing parents ages 18–50. Childbirths (cesarean or vaginal) are identified using ICD-10 and CPT codes in the IQVIA medical claims (Dx) database; the specific codes are listed in Supplemental Appendix Table A1. Given data availability through December 31, 2022, we limit the sample to deliveries between January 18, 2019, and December 17, 2021, allowing a complete 12-month postpartum follow-up for all

¹In supplementary analyses we also consider a historical pre-pandemic cohort of Medicaid-financed births from 2017-2019, constructed similarly using the same data sources as the main analytic sample but shifted back in time. Please see Section 5.4.

individuals. Payer type on the delivery claim classifies birthing parents as having Medicaid or commercial coverage at the time of birth. We further restrict the sample to women with at least one mental health disorder or SUD diagnosis during the study period.² The resulting linked medical and pharmacy claims dataset contains information on service dates, patient demographics and comorbidities, and state of residence at the time of care.

MOUD use among pregnant women is identified using NDCs on prescription claims for FDA-approved buprenorphine and naltrexone formulations, supplemented with CPT/HCPCS procedure codes on visit claims that explicitly indicate MOUD treatment (Jones et al., 2022; Busch et al., 2023; Earlywine et al., 2023); the specific codes are listed in Supplemental Appendix Table A2.³ Buprenorphine formulations indicated solely for pain management (e.g., Butrans, Belbuca) are excluded (Gupta et al., 2025). Consistent with prior studies relying on comprehensive retail pharmacy claims to examine MOUD access, methadone, dispensed exclusively through federally regulated opioid treatment programs for OUD care, is excluded (Gupta et al., 2025; Nguyen et al., 2021, 2022).

For parents with Medicaid- or commercial insurance-financed births, we restrict the analytic sample to those with at least one filled prescription for MOUD during pregnancy, ensuring that all individuals in the sample had an established treatment episode before childbirth.⁴ This design allows us to focus on postpartum continuity rather than initiation of care, as retention is critical for sustained recovery and overdose prevention (Volkow et al., 2019; Timko et al., 2016; National Institute on Drug Abuse, 2014). Moreover, initiation behavior during the pandemic may have been more affected by service disruptions, making continuity a clearer indicator of the policy’s effect on ongoing care.

In the absence of precise gestational age information at birth, we follow the convention of defining the prenatal period as the 280 days (40 weeks) preceding childbirth. This approach

²More specifically, our IQVIA extract includes all persons with a mental health disorder or SUD diagnosis between 2015 and 2022. A concern with this sample is that the PHE coverage extension through greater healthcare access/use overall, could increase the probability that a parent receives a mental health disorder- or SUD-related diagnosis. We do not believe that this concern is likely to lead to bias in our analysis because patients receiving mental health or substance use treatment without any mental health or substance use diagnosis over an extended period of time is very uncommon (Toth et al., 2025). For example, major insurers require a mental health or substance use diagnosis for reimbursement of the associated services. Diagnosis codes are used to show medical necessity of the services, failure to include such diagnosis codes can lead to a denial of the claim, meaning that the provider will not be reimbursed.

³We do not exclude naltrexone prescribed for alcohol use disorder because prescription claims do not identify clinical indication. Given that naltrexone accounts for fewer than 9% of MOUD fills in our data, including this medication in the analysis sample is unlikely to meaningfully bias our coefficient estimates.

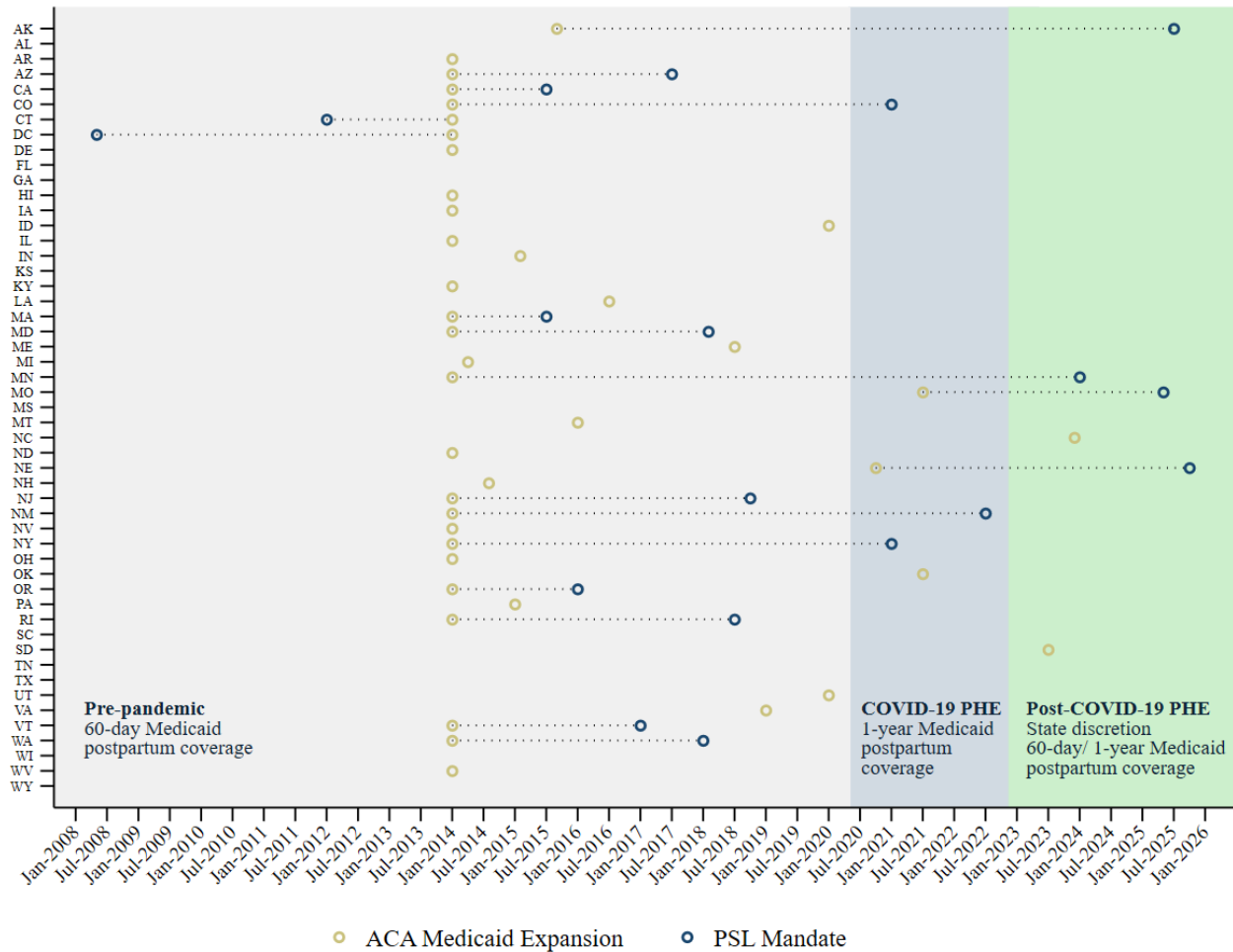
⁴We do not require the payer of the prenatal MOUD prescription to match the payer financing the delivery. Requiring a payer match would substantially restrict the sample and would necessitate assumptions about when individuals are aware of their pregnancy or when they obtain prenatal Medicaid coverage.

aligns with clinical practice and is supported by data indicating that approximately 80% of births occur between 37 and 41 weeks of gestation, with nearly 60% classified as “full-term” (39 to 40 weeks of gestation) ([Martin and Osterman, 2023](#); [Declercq et al., 2023](#); [The American College of Obstetricians and Gynaecologists, American Institute of Ultrasound in Medicine and Society for Maternal–Fetal Medicine, 2017](#)).

During the COVID-19 PHE, the suspension of Medicaid eligibility redeterminations - effective March 18, 2020 - allowed birthing parents covered by Medicaid to maintain this coverage beyond the typical 60-days postpartum eligibility window. As a result, parents with Medicaid-covered childbirths on or after January 18, 2020, included as treated observations in our Medicaid cohort, remain eligible for extended postpartum Medicaid coverage because they were still within the standard 60-day postpartum Medicaid eligibility period at the onset of the pandemic. Although some parents may have retained Medicaid-covered MOUD access beyond 12 months during the PHE, our analysis focuses on continuity within the first postpartum year to be directly informative on the impact of the permanent one-year extension authorized under the Consolidated Appropriations Act of 2023. Parents with commercial coverage at delivery serve as a control group, as their insurance-covered MOUD access is continuous and unaffected by Medicaid policy changes. As noted in [Section 2](#), a potential concern is crowd out, wherein extended Medicaid coverage could induce parents with commercially-financed births to shift to Medicaid, potentially contaminating comparisons. We find limited evidence of crowd out in [Section 4.2](#) and sensitivity analyses using alternative research designs ([Section 5.4](#)) confirm the robustness of our results. Overall, our findings suggest that crowd out cannot fully explain our results.

To distinguish between the period when parents are eligible for standard 60-day postpartum Medicaid coverage and when they could access extended one-year postpartum coverage, we classify parents into cohorts based on their month and year of childbirth. As the policy change impacts parents with Medicaid-covered childbirths on or after January 18, 2020, we define each month as beginning on the 18th and ending on the 17th of the following month. For example, January 2020, the first childbirth year-month with access to extended Medicaid postpartum coverage, spans from January 18, 2020 to February 17, 2020. Parents with Medicaid-covered childbirths between January 2019 (defined as January 18, 2019 - February 17, 2019) through December 2019 (defined as December 18, 2019 - January 17, 2020) are eligible for the standard 60-day postpartum Medicaid coverage. Parents with Medicaid-covered childbirths between January 2020 (defined as January 18, 2020 - February 17, 2020) through November 2021 (defined as November 18, 2021 - December 17, 2021) are eligible for (at least) one-year postpartum Medicaid coverage. This classification cleanly separates the two policy

Figure 2: Timeline of extended postpartum Medicaid coverage, ACA Medicaid expansion, and paid sick leave mandates



Notes: Authors' compilation from state legislative databases. Medicaid expansion adoption data are from the [Kaiser Family Foundation \(2025d\)](#) and PSL mandate data are from the [National Partnership of Women & Families \(2023\)](#). The figure situates the federal 12-month postpartum coverage policy within broader state policy environments.

periods, as shown in Figure 2, within the broader context of state ACA expansion and PSL mandates. In supplementary analyses, we also stratify the sample by age (at or above versus below the sample median age of 30 years) and by metropolitan versus non-metropolitan residence to assess whether treatment effects differ across key demographic and geographic dimensions. We classify county of residence urbanicity using the 2023 Rural-Urban Continuum Codes developed by the [U.S. Department of Agriculture, Economic Research Service \(2013\)](#). We define metropolitan counties as those with codes one to three (counties in metro areas of one million population or more; 250,000 to one million; and fewer than 250,000, respectively) and non-metropolitan counties as those with codes four to nine (urban population of 20,000 or more, adjacent or not adjacent to a metro area; 5,000 to 20,000, adjacent or not adjacent; and fewer than 5,000, adjacent or not adjacent). This binary classification aligns with prior literature distinguishing metropolitan and rural contexts for healthcare access and service availability ([Bennett et al., 2019](#); [Weeks et al., 2023](#)).

3.3 Outcome Measures

We use MOUD prescription claims for each birthing parent in our Medicaid (treatment) and commercial insurance (control) cohorts to calculate rolling days of MOUD supply on hand for each calendar month during the 12-month postpartum period.⁵ These measures incorporate both new prescription fills and carryover remaining supply from previous fills.

For parents with a history of MOUD use losing Medicaid after 60 days may not mean foregoing treatment altogether if parents transition to other coverage, including cash pay. To capture this behavior, we measure payer-specific MOUD coverage each month (Medicaid, commercial, cash, and other)⁶ during the first postpartum year, using payer information available on each MOUD prescription claim, creating indicators for whether a parent received any days of MOUD supply from each payer in each postpartum month.⁷ We construct three payer-specific measures of MOUD continuation during the first postpartum year: (1) months with MOUD use (*MOUDmonths*; range 0-12 months), (2) MOUD continuation beyond 60 days postpartum (*MOUDbeyond60days*; indicator variable of available days' of MOUD supply during months 3-12 postpartum), and (3) annual adherence ratio, defined as

⁵Leftover days' supply within a given month is carried forward to the subsequent month but does not accumulate beyond that point.

⁶Although the Marketplace-covered group is of particular interest, the small size of this market precludes separate analysis; therefore, this group is combined with the other payer category.

⁷We identify payer type at the prescription level but lack direct information on insurance coverage, limiting our ability to detect patients with multiple insurance types. Medicaid is typically the last payer. That is, if a patient has multiple coverage forms, Medicaid finances care that other insurance does not cover.

the proportion of days with MOUD medication available during the 12-month postpartum period ($MOUDadherence$; range $[0-365]/365$ days).

To assess whether the Medicaid postpartum coverage extension increases *overall* MOUD continuation among Medicaid birthing parents, we aggregate post birth MOUD use across payers, for those with Medicaid-financed births (treatment group) and for those with commercially-financed births (control group). First, we consider total months with MOUD supply from any payer in the first postpartum year ($MOUDmonths^{All}$), capped at 12. For example, a parent with four Medicaid-covered months and two cash-paid months would have six aggregate months. When payer-specific totals exceed 12 months, we rescale using proportional contributions to ensure comparability. From this aggregate metric, we also derive an indicator of continuation beyond 60 days ($MOUDbeyond60days^{All}$) and an adherence measure based on total days supply across all payers, capped at 365 days ($MOUDadherence^{All}$).

Our analysis compares policy-induced changes in both payer-specific and overall measures of postpartum MOUD continuation among parents with Medicaid-financed births to commercial insurance-covered MOUD continuation of parents with commercially-financed births, which serve as our counterfactual. We expect extended Medicaid coverage to increase Medicaid-covered continuation among Medicaid-financed birthing parents and reduce reliance on out-of-pocket payments. However, Medicaid’s administrative hurdles, such as denials and prior authorization requirements, may temporarily raise cash financing and suppress utilization (U.S. Department of Health and Human Services, Office of Inspector General, 2023; Saunders and Hinton, 2023; Agafiev Macambira et al., 2022; Muralidharan et al., 2025). The net effect on total continuation is therefore an empirical question: if Medicaid merely substitutes for other payers, overall continuation may remain unchanged; alternatively, if Medicaid coverage prevents lapses due to uninsurance or cost-sharing, overall continuation should increase.

3.4 Summary Statistics and Trends

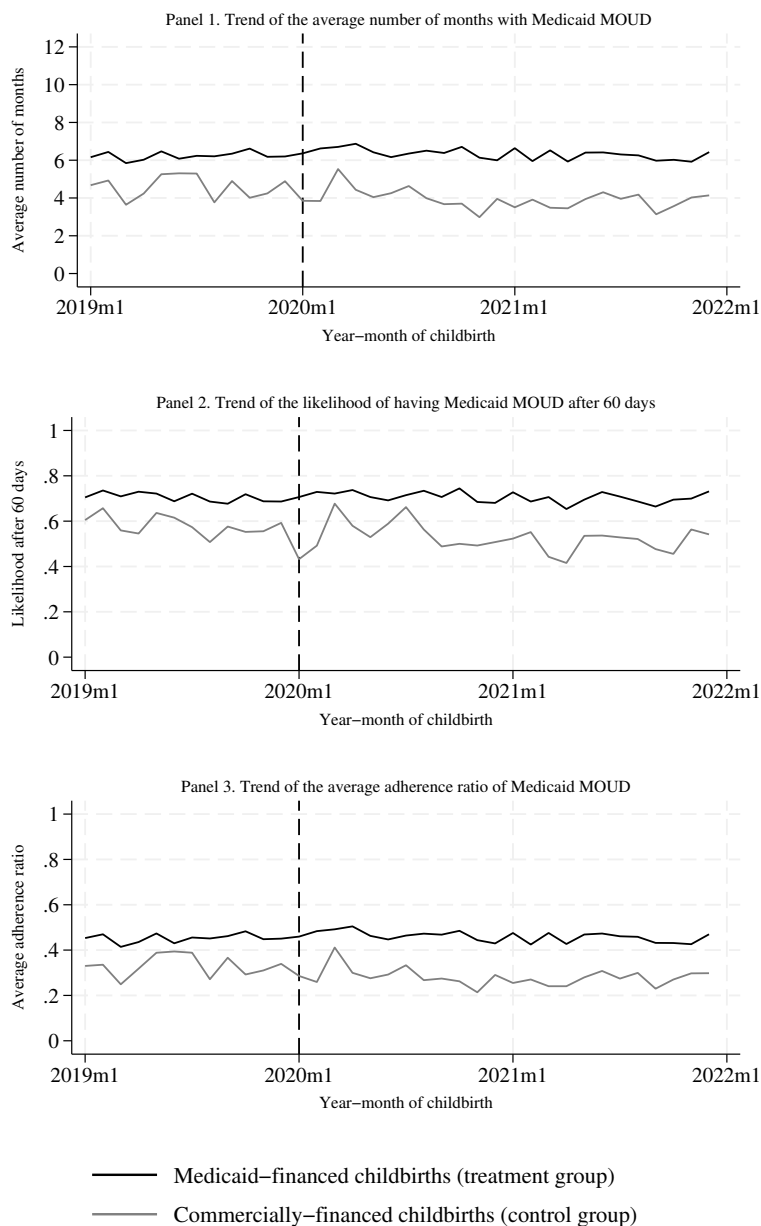
Appendix Table A3 presents summary statistics describing our treatment (parents with Medicaid-covered childbirths) and control (parents with commercial insurance-covered childbirths) cohorts, for each year of the study period. The Medicaid-covered childbirth cohort is substantially larger (16,134 birthing parents) than the commercially-insured group (2,568 birthing parents), reflecting the higher prevalence of OUD and MOUD use among people enrolled in Medicaid.⁸ The mean age is similar across both cohorts, with people enrolled in

⁸Based on national estimates of approximately 1.5 million Medicaid-financed births annually (Kaiser Family Foundation, 2025a), and documented rates of OUD among pregnant individuals (2.7%) (Roberts

Medicaid averaging around 30 years and individuals with commercial insurance are slightly older (30.07–31.19 years). Across both cohorts, depression (23.47% in Medicaid vs. 22.39% in commercial) and chronic obstructive pulmonary disease (0.41% in Medicaid vs. 0.19% in commercial) are the most common chronic conditions, reflecting substantial comorbidities in this population. The Medicaid-covered treatment cohort has higher rates of hypertension (HTN), diabetes (DM), and liver disease compared to the commercially-insured control cohort. However, the overall prevalence of these conditions, and those of cardiovascular conditions (e.g., coronary artery disease, congestive heart failure, and stroke), remains low in both cohorts, likely due to their relatively young age.

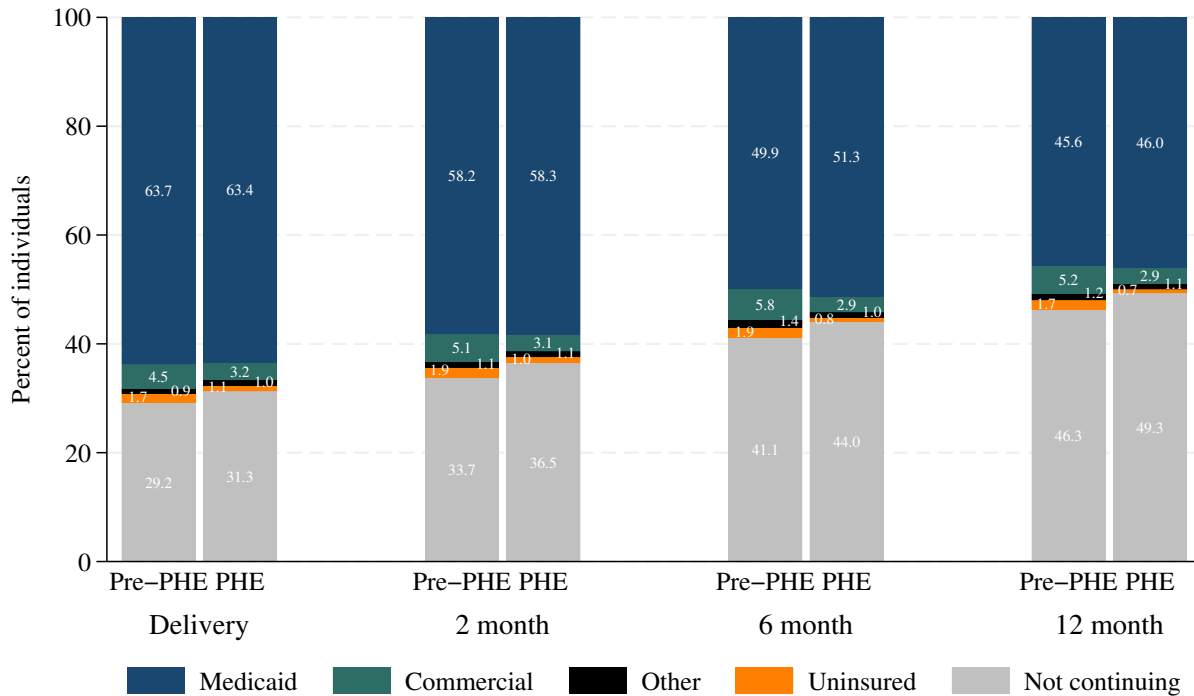
et al., 2023), our sample of roughly 5,500 Medicaid-financed births per year among individuals with mental health conditions and prenatal MOUD use is consistent with expectations. This number also aligns with estimates suggesting that 25–33% of pregnant individuals with OUD also have a mental health disorder (Arnaudo et al., 2017), and national data indicating that only about 55% of those with OUD receive MOUD during pregnancy (Roberts et al., 2023). For example, in 2019, with 1,567,731 Medicaid-financed births nationally, the expected number of births involving individuals with OUD and comorbid mental health disorders receiving MOUD would be: $1,567,731 \times 0.027 \times 0.25 \times 0.55 \approx 5,820$, which is a number very close to our annual sample size (see Appendix Table A3, top panel, first column).

Figure 3: Trends in postpartum MOUD continuation among Medicaid- and commercial insurance-financed birthing parents, 2019–2022



Notes: Authors' calculations using IQVIA all-payer claims (Dx, LRx). Panels show monthly trends in Medicaid-paid MOUD continuation outcomes - (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio—during the first postpartum year among parents with Medicaid-covered childbirths, benchmarked against commercially-insured parents with commercially-financed births. The vertical line marks January 2020, when postpartum Medicaid eligibility was extended from 60 days to 12 months under the COVID-19 Public Health Emergency. The study sample includes births from January 2019 through December 2021, spanning the policy transition from 60 days of postpartum Medicaid coverage (2019) to 12 months of coverage during the COVID-19 Public Health Emergency (2020–2021).

Figure 4: Postpartum MOUD prescription coverage by payer type among Medicaid-financed births during standard 60-day (pre-PHE) and extended 12-month (PHE) postpartum Medicaid coverage periods



Notes: Authors' calculations of postpartum MOUD prescription coverage by payer type among parents with Medicaid-financed births, measured at delivery and at two, six, and 12 months postpartum. For each patient $\times$ time point $\times$ policy period, the primary payer is defined as the source covering the largest share of MOUD days supplied; ties are resolved in the following order: other > uninsured > commercial > Medicaid. Results are shown separately for the pre-PHE period (births from January–December 2019), when postpartum Medicaid eligibility extended to 60 days, and for the PHE period (births from January 2020–December 2021), when eligibility extended to 12 months.

Among Medicaid-financed childbirth parents, Figure 3 reports Medicaid-covered continuation, while Figure A1 reports overall continuation irrespective of payer, benchmarked against stable commercial insurance-covered continuation among parents with commercially-financed childbirths. The vertical line at January 2020 marks the policy shift from 60 days of postpartum Medicaid coverage (2019 childbirths) to 12 months of coverage during the COVID-19 PHE (2020–2022 childbirths). Three patterns emerge. First, though the *levels* are different, pre-policy *trends* are relatively flat and parallel across Medicaid- and commercially-insured parents. Second, following January 2020, Medicaid-covered continuation among parents with Medicaid-financed births shows modest variation but no sharp breaks in trajectory relative to commercially-covered MOUD for parents with commercially financed births, and overall continuation remains comparatively steady. These descriptive

patterns suggest that extended eligibility is associated with sustained treatment.

To further assess in the raw data whether extended Medicaid postpartum coverage increases overall MOUD continuation or shifted the financing of this care to Medicaid, Figure 4 and Appendix Table A4 present payer distributions for MOUD continuity during the first postpartum year for parents with Medicaid-financed births at delivery and at two, six, and 12 months postpartum, comparing pre-PHE (January 2019-December 2019; 60-day coverage) and PHE (January 2020-December 2021; 12-month coverage) cohorts.⁹

We observe two main patterns. First, Medicaid remains the predominant payer throughout the postpartum period, with the share covered by this insurer essentially unchanged - from 63.73% pre-PHE to 63.40% during the PHE at delivery, and from 45.60% to 46.03% (+0.43 percentage points [pp], or +0.76 pp relative to the initial difference)¹⁰ at 12 months postpartum. Second, modest declines in commercial-financed (from 5.17% to 2.87%, -2.30 pp) and cash-financed continuation (from 1.70% to 0.69%, -1.01 pp) are offset by an increase in non-continuation (from 46.33% to 49.34%, +3.01 pp). Overall, these descriptive patterns indicate little aggregate change in postpartum MOUD continuation among Medicaid-financed births associated with the extended Medicaid postpartum coverage, but modestly greater reliance on Medicaid coverage among those remaining in treatment.

Taken together, our preliminary trend analyses suggests that the extended Medicaid postpartum coverage may slightly increase Medicaid-financed MOUD continuation, with some accompanying declines in commercial- and cash-paid (uninsured) use and limited net change in overall continuation. However, these raw patterns do not account for time-varying confounders or patient characteristics, time invariant state differences and secular time trends during the study period, and thus may represent an unadjusted, lower-bound view of the policy's effect. Therefore, next, we use difference-in-differences methods that compare MOUD continuation, by payer type and overall, among Medicaid-covered versus stable commercially-insured birthing parents to isolate the causal impact of the extended coverage.

⁹For each patient $\times$ timepoint $\times$ policy period, the primary payer is defined as the source covering the largest share of MOUD days supplied, with ties resolved in the order other > uninsured > commercial > Medicaid. Ties in payer coverage shares occurred in only 28 of 16,134 cases (0.17%), making any influence of the tie-breaking rule negligible. Results are robust to two alternative constructions: (1) aggregating days supplied across all prescriptions and patients within each timepoint $\times$ policy period to compute overall payer shares, and (2) fractional allocation of days supplied across payers (e.g., 15 Medicaid and five commercial days in a month = 0.75 Medicaid, 0.25 commercial). Both approaches yield results nearly identical to the primary specification and are available upon request.

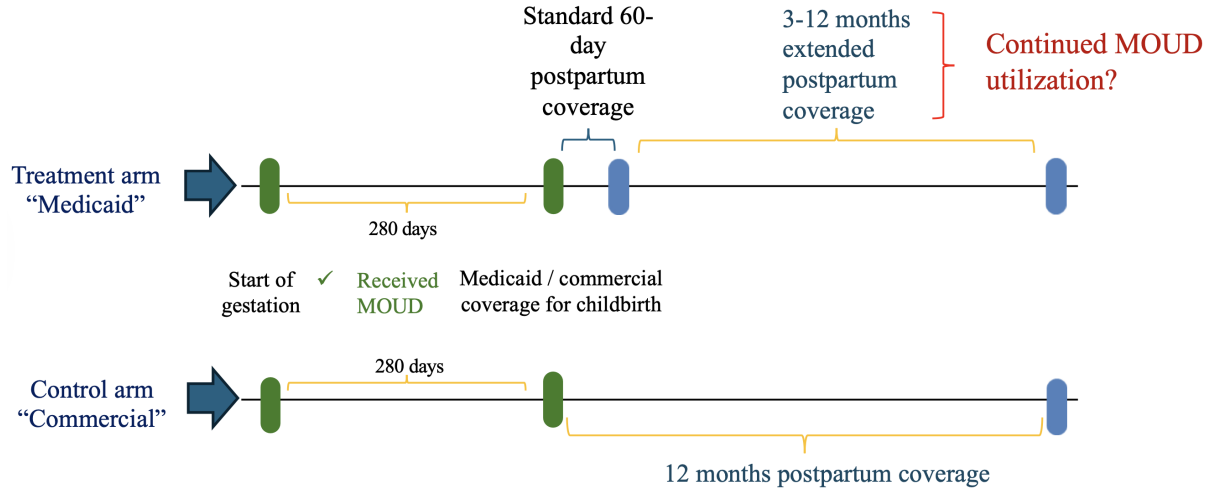
¹⁰The simple difference at 12 months postpartum is +0.43 pp (=46.03-45.60). Because Medicaid-covered MOUD use at delivery is 0.33 pp *lower* during the PHE (63.40-63.73 = -0.33), the overall increase relative to the initial gap is: 0.43 - (-0.33) = +0.76.

4 Methods

4.1 Main Specification

We want to examine the impact of extended postpartum Medicaid coverage on MOUD continuation among parents with Medicaid-financed childbirths with history of prenatal MOUD use. Our main study design, shown in Figure 5, uses a difference-in-differences (DiD) framework to compare first-year postpartum MOUD continuation between parents with Medicaid-financed births, whose postpartum coverage is extended from 60 days to 12 months under the COVID-19 PHE, and those with commercially-financed births, whose coverage is expected to have remained at 12 months postpartum.

Figure 5: Study research design



Notes: Authors' depiction of study research design comparing MOUD continuation during the first year postpartum in the "treated" cohort of parents with Medicaid-covered childbirths and the "control" cohort of parents with commercial insurance-covered childbirths.

To implement our research design, we use a sample of parents with Medicaid- or commercial insurance-financed childbirths between January 2019 and December 2021 with prenatal MOUD use. The DiD specification is then estimated at the birthing parent (i) level as outlined in Equation 1:

$$y_{ist}^P = \beta Birth_{Medicaid} \times C19PHE_t + \mu Birth_{Medicaid} + X_{it}\delta + \theta_s + \gamma_t + \epsilon_{ist} \quad (1)$$

where $y_{ist}^P \in \{MOUDmonths, MOUDbeyond60days, MOUDadherence\}$ denotes one of three MOUD continuation outcomes in the first postpartum year for birthing parent i , with childbirth in year-month t , in state s . Outcomes are measured by payer type and overall with $P \in \{\text{Medicaid, commercial, cash, other, all}\}$, as described above in Section 3.3. In this framework, θ_s is a vector of state fixed effects capturing time-invariant state differences, and γ_t is a set of childbirth year $\times$ month fixed effects, which accounts for trends in the outcomes that are common across all birthing parents in the study sample. $Birth_{Medicaid}$ is an indicator equal to one for Medicaid-financed childbirths (zero for commercially-financed childbirths) and adjusts for time invariant baseline differences in outcomes between Medicaid- and commercially-covered parents. X_{it} includes individual characteristics - comorbidities¹¹ and age. ϵ_{ist} is a residual error term. The interaction term $Birth_{Medicaid} \times C19PHE_t$ is analogous to the Treat $\times$ Post term in a conventional DiD framework, with β capturing the causal effect of extended postpartum Medicaid coverage on MOUD continuation outcomes among parents with Medicaid-financed childbirths during the COVID-19 PHE. The main effect of $C19PHE_t$ is absorbed by time fixed effects.

We estimate Equation 1 using OLS with heteroskedasticity-robust standard errors. We do not cluster standard errors at the state or parent level as the policy change is federal and each parent contributes only one observation to the sample. The study period runs from January 18, 2019 through December 17, 2022, enabling observation of the full first postpartum year for births between January 2019 and December 2021.

Our DiD design estimates the effect of extended postpartum Medicaid coverage on MOUD continuation by comparing Medicaid-covered birthing parents to a control group of stable commercially-insured birthing parents, who should be unaffected by the policy change. This approach relies on the common trends and strict exogeneity assumptions (Wooldridge, 2010). The common trends assumption implies that, after adjusting for covariates and state and time fixed effects, MOUD continuation outcomes among parents with Medicaid-covered childbirths would have followed a common time trend post-policy in the absence of the COVID-19 PHE-related extension of postpartum Medicaid coverage. The strict exogeneity assumption requires that the timing of the federal policy decision to suspend Medicaid eligibility redeterminations during the COVID-19 PHE is not systematically related to MOUD continuation outcomes in other time periods. This assumption could be violated if MOUD continuation

¹¹ICD-10 codes are used to adjust for the presence of ten chronic conditions based on their high prevalence in our sample (Centers for Disease Control and Prevention, 2024; Sung et al., 2024), and the necessity for ongoing healthcare engagement. These conditions include Alzheimer’s disease and related dementias, cancer, coronary artery disease, chronic obstructive pulmonary disease, depression diabetes, heart failure, hypertension, liver disease, osteoarthritis, renal disease, and stroke.

patterns shifted in anticipation of COVID-19 onset. While these are strong assumptions that are difficult to directly test, the unanticipated onset of the COVID-19 PHE, which triggered the postpartum Medicaid extension, potentially makes them plausible in our setting. Moreover, evidence of pre-policy common trends in the MOUD outcomes across the treatment and control groups can provide suggestive evidence on the plausibility these assumptions.

While our non-parametric analysis of pre-trends in Figures 3 and A1 suggests that our data can support the common trends in outcomes and strict exogeneity assumptions, as is standard in the DiD literature, we employ an event study to evaluate how measures of MOUD continuation evolve before (i.e., pre-trends) and after the implementation of extended postpartum Medicaid coverage. Let E represent January 2020, the monthly date after which birthing parents gained access to (at least) one-year extended Medicaid postpartum coverage. Then, $TSE_{it} = t - E$ measures for each birthing parent i the number of months between their year-month of childbirth t and January 2020. For instance, for childbirths occurring five months prior to January 2020 (i.e., in August 2019), $TSE_{it} = -5$. For childbirths five months after the policy change (i.e., June 2020), $TSE_{it} = 5$. We set $TSE_{it} = 0$ for birthing parents with commercial insurance-financed childbirths, which are unaffected by Medicaid postpartum coverage policy changes.

We fit event studies with the structure outlined in Equation 2:

$$y_{it} = \sum_{a=-12}^{-2} \alpha_a 1(TSE_{it} = a) + \sum_{b=0}^{23} \beta_b 1(TSE_{it} = b) + \mu Birth_{Medicaid} + X_{it}\delta + \theta_s + \gamma_t + \epsilon_{st} \quad (2)$$

α_a and β_b are event study coefficient estimates that trace out deviations from common trends experienced by Medicaid-financed birthing parents in the months leading up to and following the implementation of extended Medicaid postpartum coverage (i.e., for births occurring before and after January 2020). α_a captures any differential trends in MOUD continuation outcomes among parents with Medicaid-financed childbirths, relative to parents with commercial insurance-financed childbirths, before the extension of Medicaid postpartum coverage. β_b measures differential trends in MOUD continuation outcomes for birthing parents covered by Medicaid with childbirths occurring after January 2020, when parents with Medicaid-financed childbirths gain access to the extended postpartum Medicaid coverage. The reference period in all event studies is the month before January 2020 ($TSE_{it} = -1$). Interpretation of θ_s , $Birth_{Medicaid}$, X_{it} , and γ_t remain the same as in Equation 1. Statistical equality in MOUD continuation outcomes among parents with Medicaid- and commercial insurance-financed childbirths in the period preceding the extension of postpartum Medicaid

coverage to support the identifying common trends assumption is tested with the estimated coefficients α_a . Coefficient estimates that are small in magnitude and not statistically different from zero provide suggestive evidence that the data can satisfy the common trends and strict exogeneity assumptions.

4.2 Investigating Potential Crowd Out

A potential identification concern for our DiD research design is policy-induced crowd out, whereby extended Medicaid coverage could prompt some birthing parents to shift from commercial insurance to Medicaid, thereby altering the composition of the treatment and control groups. We assess this possibility using two complementary pieces of evidence.

First, payer-specific trends in MOUD-treated births (Figure A2) remain stable throughout the study period, indicating no meaningful increase in Medicaid-financed births at the expense of commercial coverage. Second, Figure A3 and Appendix Table A5 present payer distributions for commercially-financed births with prenatal MOUD use, comparing pre-PHE (2019 childbirths with 60-day Medicaid postpartum coverage) and PHE (2020-2021 childbirths with 12-month coverage) cohorts. Commercial coverage is already lower at delivery during the PHE (45.33% pre-PHE vs. 40.76% during the PHE; -4.57 pp), and accordingly, continuation over the first postpartum year shows a further, but proportionally smaller, decline—from 31.94% to 24.74% (-7.20 pp, or -2.63 pp relative to the initial difference). Medicaid coverage increases by 1.92 pp at delivery and by 1.52 pp at 12 months postpartum, indicating small shifts toward Medicaid-financed MOUD continuation as commercial-financed declines. Cash-paid and other payer shares remain stable throughout the time period. The share of non-continuation rises from 44.47% to 49.37% ($+4.90$ pp; $+1.56$ pp increase relative to the initial difference),¹² suggesting only a small overall change in the rate of postpartum MOUD continuation among the commercial-insurance covered birthing parents once all payers are considered. In light of descriptive evidence of some potential crowd out, Section 5.4 reports sensitivity analyses using alternative research designs; reassuringly, our findings remain robust.

¹²The simple difference in non-continuation at 12 months postpartum is $+4.90$ pp ($=49.37-44.47$). Because non-continuation at delivery is already 3.33 higher during the PHE ($34.66-31.33 = +3.33$), the overall increase relative to the initial gap is: $4.90 - 3.33 = +1.56$.

4.3 Heterogeneity Analyses

The nationwide Medicaid postpartum coverage extension during the COVID-19 PHE unfolded within a landscape of diverse state Medicaid policies, reflecting the program’s decentralized structure and the potential influence of state administration on buprenorphine MOUD access. To assess whether, and to what extent, broader policy environments mediate the effects of extended Medicaid postpartum coverage, we estimate DiD regressions stratified by states’ baseline policy contexts - specifically, whether the state has expanded Medicaid under the ACA ([Kaiser Family Foundation, 2025d](#)) and implemented a PSL mandate ([National Partnership of Women & Families, 2023](#)).¹³ Figure 2 summarizes state-level variation in ACA expansion and PSL policies over the study period.

ACA Medicaid expansion extends coverage to all adults with incomes up to 138% of the FPL in adopting states. Thus, Medicaid expansion provides an alternative source of coverage for postpartum women with lower incomes, suggesting that the COVID-19 era extended postpartum impacts may be larger in non-expansion states where residents with lower incomes, including postpartum women, have fewer affordable coverage options. More specifically, the two types of Medicaid coverage may serve as substitutes. Alternatively, in states that have expanded Medicaid with the ACA, providers may be more willing to treat people with Medicaid coverage overall and there could be stronger outreach programs to enroll eligible people - including postpartum women. Such responses could lead to positive spillovers, suggesting complementarity between ACA Medicaid expansion and extended postpartum coverage.

PSL mandates provide employees with approximately seven days of financially protected time (with 100% wage replacement) each year for health-related needs of themselves and their dependents ([National Partnership of Women & Families, 2023](#)).¹⁴ PSL reduces both the time and financial costs of receiving healthcare and earlier work documents that healthcare use increases post-PSL mandate ([Maclean et al., 2023](#); [Pichler et al., 2021](#)), including among people enrolled in Medicaid ([Maclean et al., 2024](#); [Gupta et al., 2025](#)). Mandated PSL can be used by postpartum women to more easily receive healthcare, suggesting that mandated PSL and extended postpartum Medicaid coverage may be complements.

Beyond these policy contexts, we estimate additional stratified models by parent age and

¹³From the analyses stratified by state ACA expansion status, we exclude states that expanded Medicaid during the study period (Missouri, Nebraska, and Oklahoma) to avoid conflating concurrent policy changes. Similarly, for the analyses stratified by state PSL mandates, we exclude states that adopted PSL mandates during the study period (Colorado, New Mexico, and New York).

¹⁴Eligible dependents include spouses, partners, and children in all state PSL mandate states. A concern might be that people enrolled in Medicaid are less likely to work than are other people. However, 63% of adults enrolled in Medicaid below age 65 and without disabilities work ([Guth et al., 2023](#)), suggesting that many adults enrolled in Medicaid are likely eligible for these benefits.

urbanicity to assess whether extended postpartum coverage effects differ across demographic and geographic subgroups. These exploratory analyses capture whether younger parents and metropolitan residents (Franz et al., 2024), who typically exhibit higher baseline treatment access, show stronger continuity gains.

5 Results

5.1 Impact of Federal Extended Medicaid Postpartum Coverage on MOUD Continuity Among Parents

Table 1 presents our main DiD coefficient estimates assessing the impact of extended postpartum Medicaid coverage on MOUD continuation outcomes, by payer and overall, among the treated cohort of parents with Medicaid-financed childbirths relative to those for the control cohort of parents with commercial insurance-financed childbirths. The analysis focuses on our three key measures of continued MOUD use during the first postpartum year: (1) number of months with MOUD, (2) continuation of MOUD beyond 60 days postpartum, and (3) annual adherence ratio, defined as the number of MOUD days’ supply in hand (out of 365 days) across all MOUD prescriptions. Complete regression results for all outcomes, by payer type and overall, are provided in Appendix B, Tables B1 - B5.

Panel A reports changes in postpartum MOUD continuation covered by Medicaid among parents with Medicaid-financed childbirth relative to the control cohort. Extended postpartum Medicaid coverage significantly increases Medicaid-covered MOUD continuation among parents enrolled in Medicaid across all three outcome measures. The policy increases Medicaid-covered MOUD use by 0.53 (standard error [SE] = 0.20) months, an 8.55% rise compared to the pre-policy mean of 6.25 months. Additionally, the probability of continuing MOUD beyond 60 days postpartum increases by 3.61 (SE = 2.01) pp (a 5.12% increase), though this coefficient estimate is statistically significant only at the 10% level. This more modest effect size is not unexpected, as the pre-policy average treatment duration is 6.25 months (first column, second last row Panel A), suggesting that the 60-day continuation indicator likely understates the true changes in duration. In contrast, the number of MOUD days’ supply per year increases by 3.63 (SE = 1.53) pp (a 7.99% increase). These results indicate that the policy increases Medicaid-financed postpartum MOUD continuity for parents with Medicaid-covered childbirths.

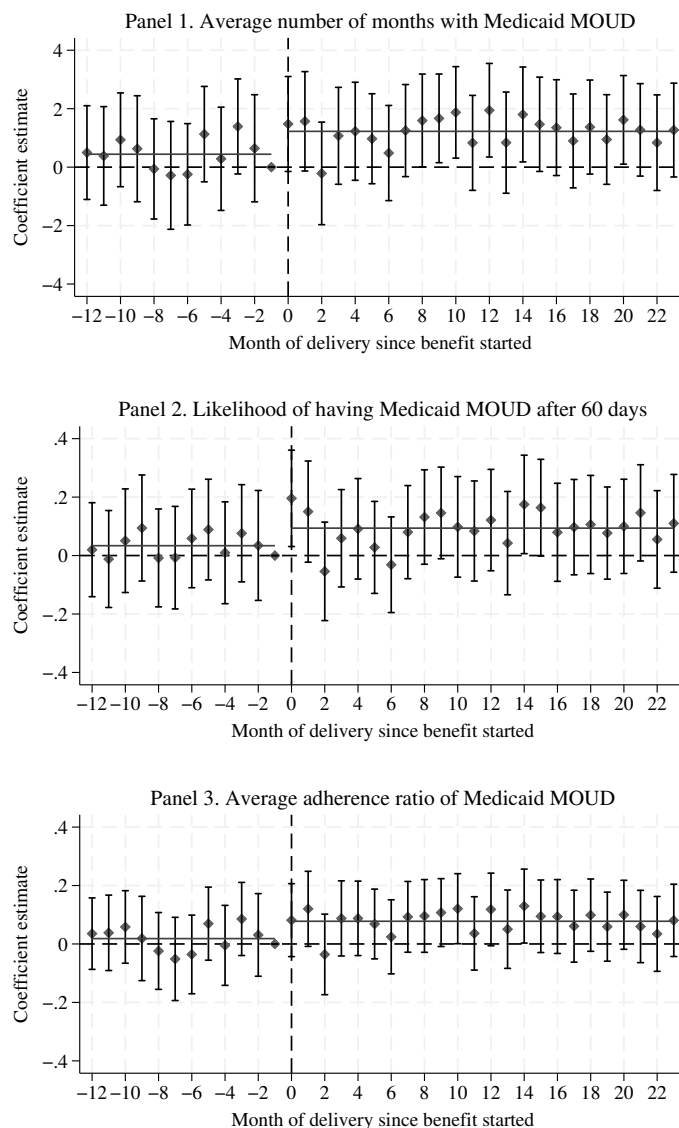
Panel B reports the estimated effects of extended postpartum Medicaid coverage on commercial insurance-covered MOUD utilization during the first postpartum year among

Table 1: Difference-in-differences estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type, during first postpartum year

Panel A. Medicaid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5344*** (0.1980)	0.0361* (0.0201)	0.0363** (0.0153)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.2529	0.7055	0.4542
Percentage change	8.55%	5.12%	7.99%
Panel B. Commercial MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.2926* (0.1661)	-0.0150 (0.0187)	0.0248* (0.0128)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.7981	0.1960	0.0486
Percentage change	36.66%	NA	51.03%
Panel C. Cash-paid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.4195*** (0.1635)	0.0069 (0.0183)	0.0352*** (0.0126)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.3757	0.1155	0.0181
Percentage change	111.66%	NA	194.48%
Panel D. Other MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5429*** (0.1625)	0.0512*** (0.0175)	0.0427*** (0.0125)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.1740	0.0458	0.0097
Percentage change	312.01%	111.79%	440.21%
Panel E. Aggregated MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.3505* (0.1957)	0.0281 (0.0201)	0.0262* (0.0154)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.8710	0.7212	0.5647
Percentage change	5.10%	NA	4.64%

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

Figure 6: Event study estimates of the impact of extended 12-month postpartum Medicaid coverage on Medicaid-financed MOUD continuation during first postpartum year



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports event study estimates from a difference-in-differences specification comparing Medicaid-covered MOUD continuation among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group) during the first postpartum year. Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. Event time is centered on January 2020, when postpartum Medicaid eligibility expanded from 60 days to 12 months under the COVID-19 Public Health Emergency (vertical dashed line). The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

parents with Medicaid-financed births, again relative to commercial-covered MOUD outcomes among those with commercially-financed-births whose coverage remained unaffected by the policy. We find no evidence of declines in commercial coverage across any of the three MOUD continuity measures - months with treatment, continuation beyond 60 days, or annual days' supply - reductions that would have indicate crowd out. Specifically, two of the three estimated treatment effects are positive, but small in magnitude and reach significance only at the 10% level, while the third is statistically indistinguishable from zero. These results provide no evidence of meaningful reductions in commercial insurance-based postpartum MOUD use among parents with Medicaid-financed childbirths due to the Medicaid policy in the adjusted models. If anything, the positive coefficient estimates for months and adherence ratio suggest a potential additive effect, with Medicaid postpartum extension facilitating broader access rather than substituting for existing commercial coverage.

Panel C presents results on the impact of extended postpartum Medicaid coverage on cash-covered MOUD continuation, comparing birthing parents with Medicaid-covered deliveries to those using commercial insurance. Potentially contrary to expectations, the policy is associated with *increased* use of cash payments for MOUD among the Medicaid group. Specifically, the number of months with cash-paid MOUD increases by 0.40 months. While the likelihood of continuing MOUD beyond 60 days with cash payments is unchanged, the annual proportion of days covered through out-of-pocket payments also rises modestly. As outlined in Section 2, one potential reason for the observed increase in cash-paid MOUD, despite the administrative extension of Medicaid coverage during the PHE, may be Medicaid's higher rates of temporary claim denials compared to other payers ([U.S. Department of Health and Human Services, Office of Inspector General, 2023](#); [Muralidharan et al., 2025](#)), particularly for behavioral health services ([Sircar, 2020](#)), which may result in services being covered by self-pay in the interim. Evidence of increases in cash payments for MOUD suggests that administrative barriers could limit the full utilization of extended Medicaid coverage among vulnerable postpartum patients with OUD.

Panel D of Table 1 reports the estimated effects of extended postpartum Medicaid coverage on MOUD utilization financed through other miscellaneous payer sources, including Marketplace-based plans. Although only a small share of parents with Medicaid-financed births receive postpartum MOUD covered by other payers (Figure 4), we find statistically significant increases in such coverage beyond 60 days postpartum among parents with Medicaid-financed births, relative to the stable patterns observed in the commercially-financed comparison group. The number of months with MOUD claims paid by other payer types increases by 0.54 (SE = 0.16) months, and annual days' of supply increases by 0.04 (SE = 0.01).

Though the relative increases appear large, they are driven by low baseline levels, and the absolute magnitudes remain modest. Again, these findings suggest that extended Medicaid coverage does not necessarily lead to a reduction in alternative forms of coverage for MOUD, and in some cases may have coincided with broader postpartum care access, even among people who frequently experience coverage churn.

Finally, Panel E of Table 1 reports estimates of the effect of extended postpartum Medicaid coverage on overall MOUD continuation among parents with Medicaid-financed births, aggregated across payer sources. The Medicaid postpartum extension is associated with an overall *increase* in both the duration of and adherence to MOUD treatment, but with estimated effects that are statistically significant only at the 10% level. The policy increases the number of months with any MOUD use by 0.35 months ($SE = 0.20$), a 5.10% increase relative to the pre-policy mean of 6.87 months. Similarly, the number of MOUD supply days per year rises by 0.03 ($SE = 0.02$), corresponding to a 4.64% increase over baseline. The estimated effect on continuation beyond 60 days postpartum is positive (2.81 pp) but statistically indistinguishable from zero. These findings indicate that in the pooled sample of all states extended postpartum Medicaid eligibility may have slightly expanded overall MOUD engagement, driven by increases in Medicaid coverage. Moreover, our DiD estimates are not influenced by the inclusion of controls for individuals' demographic characteristics and comorbidities; as shown in Appendix Table B6 our coefficient estimates remain very similar when these covariates are excluded.

A causal interpretation of our DiD coefficient estimates relies on the identifying assumption that, absent the policy change, outcomes for the treatment and control groups would have followed parallel trends in the pre-policy period. We assess this assumption using the event study specification in Equation 2, with results for the three Medicaid-financed postpartum MOUD continuation outcomes graphically presented in Figure 6. The coefficient estimates indicate no systematic pre-policy differences in MOUD continuation between Medicaid-covered and commercially-insured births - consistent with the descriptive trends in Figure 3, supporting the validity of the common trends assumption. Following policy implementation, the event study coefficient estimates align with the DiD results, showing modest increases in all three Medicaid-covered MOUD continuation outcomes. Although individual event time estimates are imprecise they are jointly significant at the 5% level, consistent with the aggregate Medicaid MOUD continuation effects (Table 1, Panel A).

Taken together, the results indicate that extending postpartum Medicaid coverage modestly improves overall MOUD continuity during the first postpartum year. We estimate a 5.10% increase in the number of months with any MOUD use and a 4.64% increase in

total days’ supply, driven primarily by gains in Medicaid-financed treatment. In the adjusted models, we find no evidence of crowd out: commercial coverage does not decline in response to the extended postpartum Medicaid coverage, and increases in cash-paid MOUD may reflect temporary claim denials rather than substitution away from Medicaid. Even if all of the increase in overall MOUD continuation is driven entirely by Medicaid, given the average monthly cost of transmucosal buprenorphine - \$196 in 2022 (Flam-Ross et al., 2023), Medicaid-sponsored coverage gains translate into meaningful financial protection for postpartum individuals. To the extent that lower cost-sharing facilitates treatment retention, our results suggest that extended Medicaid coverage may promote sustained MOUD engagement and improve longer-term outcomes.

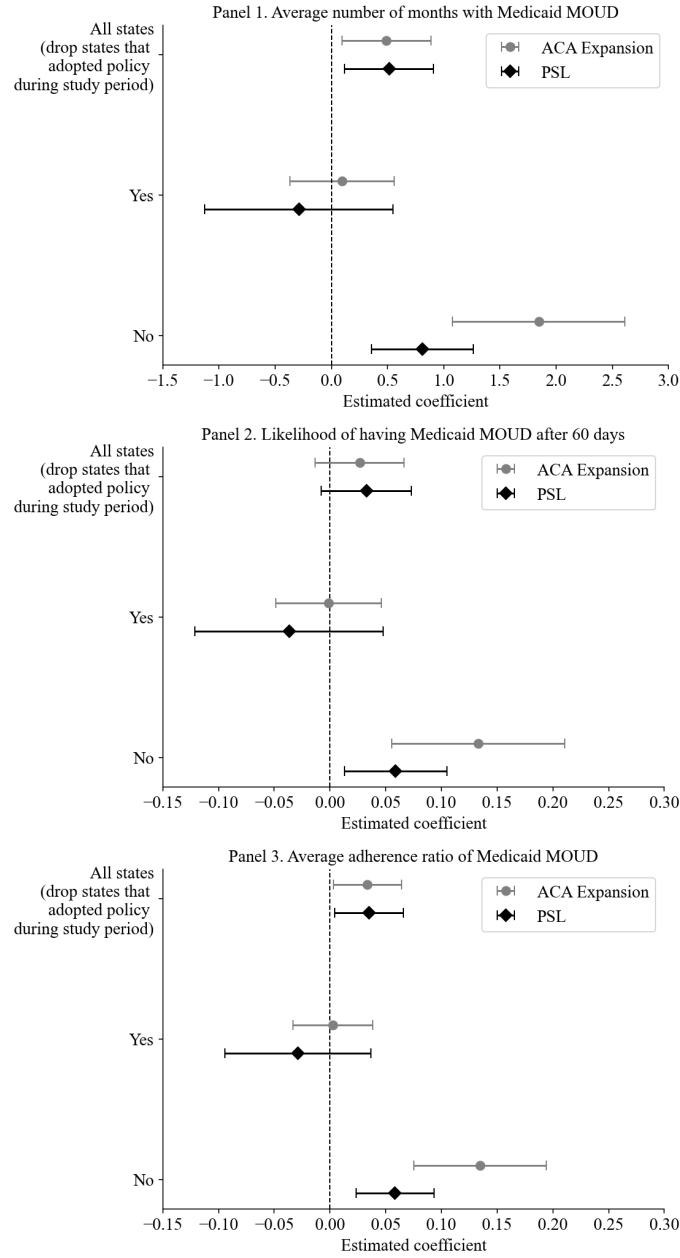
5.2 State Policy Context and Heterogeneous Effects

The modest but positive overall increase in MOUD continuation following the postpartum Medicaid coverage extension observed in the pooled analysis may mask variation across different state policy environments. In particular, preexisting state-level policies - such as ACA Medicaid expansion and PSL mandates - have the potential to meaningfully mediate, moderate, or amplify the impact of the federal postpartum coverage extension. These contextual policies shape the stability and generosity of social insurance programs for postpartum individuals, influencing both the need for and the potential reach of federal policy interventions. We therefore assess heterogeneity in the effects of extended postpartum Medicaid coverage on MOUD continuation by two key state policy dimensions: (1) ACA Medicaid expansion status, and (2) the presence of PSL mandates.

Figure 7 (and Appendix Tables C1 - C2) display DiD coefficient estimates from stratified samples. Consistent with the hypothesis that the federal extension is most consequential where baseline coverage gaps are largest, we find statistically significant and substantively larger gains in states without ACA Medicaid expansion and without PSL mandates. In the pooled sample across all states (Table 1, Panel E), extended postpartum Medicaid eligibility increases the number of months with any MOUD use by 5.10% and the total annual days’ supply by 4.64%, effects that are positive but only marginally significant at the 10% level. By contrast, in non-ACA expansion states, the number of months with MOUD increases by 17.05% and the total days’ supply by 16.43% (Table C1, Panel E), both statistically significant at conventional levels.

A similar pattern emerges when stratifying by state PSL mandate status (Table C2). Contrary to the complementarity hypothesis noted in Section 4.3, our empirical results do

Figure 7: Effect of extended 12-month postpartum Medicaid coverage on Medicaid-financed MOUD continuation during first postpartum year, stratified by state ACA expansion status and PSL mandates



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports estimates from a difference-in-differences specification comparing Medicaid-covered MOUD continuation among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion and PSL mandates. Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. In the ACA-expansion stratification, we exclude states that expanded Medicaid during the study period (Missouri, Nebraska, and Oklahoma) to avoid overlapping policy changes. In the PSL-mandate stratification, we exclude states that adopted a PSL mandate during the study period (Colorado, New Mexico, and New York). All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Coefficient estimates are shown with heteroskedasticity-robust 95% confidence intervals.

not support stronger impacts in PSL mandate states. In fact, states without PSL mandates exhibit notably stronger effects, nearly 8.46% higher MOUD days’ supply annually and 8.68% additional months with treatment overall, compared to states with PSL protections, where coefficient estimates are smaller and less precisely estimated. In both policy contexts, these substantial increases occur without any corresponding declines in commercial insurance–covered MOUD continuation, indicating that the gains reflect expanded overall access rather than payer substitution.

The heterogeneity results suggest that extended postpartum Medicaid coverage effectiveness is context-dependent: benefits are most pronounced in states where complementary social and health coverage policies are absent. These findings underscore the interactive nature of federal and state policies and highlight that federal postpartum coverage extensions can play a particularly critical role in mitigating access gaps for postpartum individuals with OUD in states that have not adopted ACA Medicaid expansion or PSL protections.

5.3 Heterogeneity by Beneficiary Age and Urbanacity

We next assess heterogeneity in the effect of extended postpartum Medicaid coverage by beneficiary age and urban residence (Appendix D). Table D1 stratifies the analysis sample by whether the birthing parent is younger than 30 years (below-median age) or 30 years and older. Among parents with Medicaid-financed childbirths, the increase in Medicaid-financed MOUD continuation following the coverage extension is modest in magnitude (approximately 7–9%) and statistically significant only at the 10% level. In contrast, continuation financed through commercial insurance, cash, or other payers rises more sharply, however, these non-Medicaid payer categories account for a small share of postpartum MOUD claims relative to Medicaid, limiting their contribution to population-level changes. Although these heterogeneous findings are somewhat less precise than those in the full sample (Table 1), the coefficient estimates are similar in magnitude, suggesting that dividing the sample by age primarily reduces statistical power rather than altering the substantive conclusions. Taken together, the results imply that all postpartum individuals experience gains in MOUD continuation following extended postpartum Medicaid coverage, consistent with our pooled results.

Table D2 reports results for people with metropolitan versus non-metropolitan residence. Estimated effects are directionally consistent across settings but larger and more precisely estimated in metropolitan areas. Among parents with Medicaid-financed births, 12-month postpartum coverage extensions increase Medicaid-financed MOUD months by 9.20% and total days of MOUD supply by 9.09% in urban areas, compared with smaller and statistically

insignificant effects in non-metropolitan regions. Commercially-financed MOUD continuation effects in metropolitan areas are small and positive ($p < 0.10$), contradictory to the findings we would expect if crowd out is important in this context, which would predict declines in these sources of coverage. Continuation financed by other payer types - cash-pay or other public programs - also rises during this period, and gains are concentrated in metropolitan settings. Aggregating across all payers, total MOUD months and supply days per 365 days increases by roughly 5–6% among metropolitan residents. Taken together, these results indicate that extended postpartum Medicaid coverage improves continuity of MOUD treatment across demographic and geographic subgroups, with the most substantial effects observed among metropolitan beneficiaries.

5.4 Sensitivity Checks

A series of sensitivity checks confirms the robustness of our DiD coefficient estimates of postpartum MOUD continuation among Medicaid-covered birthing parents relative to those with commercially-insured births before and after the implementation of 12-month postpartum Medicaid coverage as we document below. We describe these analyses next.

5.4.1 Alternative Research Designs

We assess the robustness of our main DiD findings, using an alternative quasi-experimental design - difference-in-difference-in-differences (triple-difference) - commonly employed in policy evaluation research. The triple-difference specification takes into account that the postpartum Medicaid coverage extension coincided with the onset of the COVID-19 pandemic, and therefore a standard DiD design risks conflating the policy’s effect with pandemic-related shocks that may independently alter MOUD access and utilization across both Medicaid and commercial insurance payer groups. These shocks include federal- and state-level flexibilities such as expanded telehealth prescribing for buprenorphine, relaxed take-home methadone policies, and broad behavioral health system disruptions associated with the pandemic, as well as the wider social and economic distress related to OUD outcomes.

We leverage a historical pre-pandemic cohort (births 2016-2018) of Medicaid- and commercial insurance-financed birthing parents with prenatal MOUD exposure as a third comparison group. Within this historical cohort, 2016 births serve as the “pre-policy” period and 2017–2018 births as the “post-policy” period, mirroring the temporal structure of our primary analytic window (2019-2022). This triple-difference specification, detailed in Appendix E, thus controls for unobserved shocks common to parents with both Medicaid and

commercial insurance across time, helping isolate the policy-induced change in postpartum MOUD continuation attributable specifically to the extended postpartum Medicaid coverage. A positive and statistically significant triple-difference coefficient estimate (β_7 in Equation E1) would indicate that postpartum MOUD continuation increases more among Medicaid-covered birthing parents relative to commercially insured parents, beyond any general pandemic-related shifts in SUD treatment access or health system delivery, thereby supporting our primary hypothesis that the extended postpartum Medicaid coverage increases continuity of MOUD treatment among beneficiaries.

Comparing payer-specific and aggregate MOUD continuation for Medicaid-insured parents relative to their commercially-insured counterparts, the full-sample triple-difference results (Appendix Table E1) closely mirror the main DiD findings presented in Section 5.1, confirming robustness to the alternative specification. For Medicaid-covered MOUD (Appendix Table E1, Panel A), the estimated triple-difference treatment coefficient estimate ($Birth_{Medicaid} \times Post \times Pandemic$ interaction in Equation E1) is positive and statistically significant for two of three outcomes — months with MOUD use (8.72% increase) and MOUD adherence (10.68% increase) — indicating that the 12-month postpartum Medicaid extension increases both the duration and consistency of Medicaid-sponsored treatment, even after accounting for pandemic-era shocks affecting both groups. Results presented in Appendix Figure E1 provide support for the parallel-trends assumption using the triple-difference specification, showing that pre-policy trajectories in postpartum MOUD continuation for Medicaid and commercially-insured births are parallel supporting the causal interpretation of our triple-difference estimates. Panels B–D of Appendix Table E1 show similar directional increases for the smaller shares of cash-paid and other-payer MOUD among Medicaid-birthing parents, with no corresponding change in MOUD continuation covered by commercial insurance. Aggregating across payer types (Panel E), the triple-difference coefficient estimates indicate modest, but imprecise, increases in overall MOUD continuation following the postpartum Medicaid coverage extension when all states are considered together.

Although pooled triple difference coefficient estimates across all states show no statistically significant aggregate increase in MOUD continuation, our DiD findings suggest that the effects are concentrated in states lacking the additional protections of ACA Medicaid expansion and PSL mandates. Stratified triple-difference models by state policy context confirm this heterogeneity. As shown in Appendix Table E2, Panel E, overall gains are driven by non-expansion states, where postpartum individuals face a greater risk of uninsurance: aggregate MOUD treatment duration and adherence increase by approximately 15.10% and 12.90%, respectively, relative to pre-policy levels and to the commercially insured control

group. Similarly, Appendix Table E3 shows significant increases of 7.78% and 7.23% in aggregate MOUD treatment duration and adherence, respectively, driven by increases in Medicaid-financed MOUD continuation only in states without PSL mandates, suggesting that in the absence of alternative job-protected leave or wage supports, extended Medicaid coverage serves a compensatory role in sustaining postpartum treatment access. However, compared to the aggregate increases observed for non-ACA expansion and no-PSL states in the stratified DiD models (Appendix Tables C1 and C2, Panel E) the triple-difference estimates (Appendix Tables E2 and E3, Panel E) are attenuated and statistically significant only at the 10% level, reflecting the additional adjustment for broader pandemic-related shocks. Still, the triple-difference analyses reinforce the main findings and strengthen causal interpretation: the postpartum Medicaid extension increases overall MOUD continuity, driven primarily by Medicaid-financed gains, in states lacking broader social or coverage protections.

5.4.2 Endogenous Fertility

As noted in Section 4.2 and illustrated in Figure A2, we find no meaningful evidence of fertility shifts coinciding with the policy change. Nevertheless, if fertility behavior shifts across payer types in response to extended postpartum Medicaid coverage, our coefficient estimates could be biased. To assess sensitivity to potential endogenous fertility responses, we re-estimate the main DiD regressions restricting the sample to births occurring between January 18, 2019, and December 17, 2020, i.e., those births most likely conceived before the COVID-19 pandemic and therefore plausibly exogenous to the policy change.

As shown in Table F1, the estimated effects of 12-month postpartum Medicaid coverage on MOUD continuation outcomes, both overall and by payer type, are consistent with the main results reported in Table 1. Coefficient estimate magnitudes and significance levels are similar, supporting the robustness of our findings to potential bias from endogenous fertility.

5.4.3 Other Concurrent Policy Effects

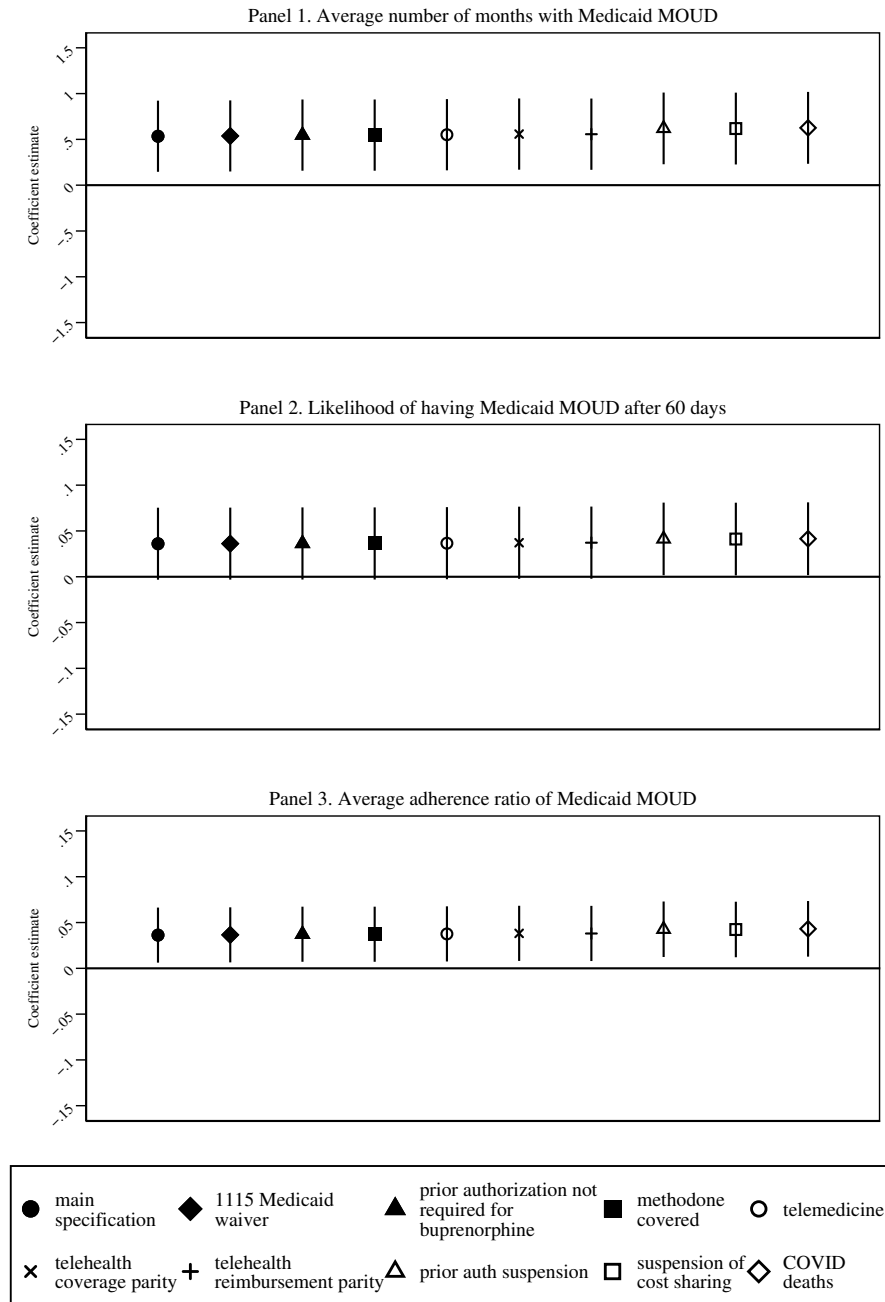
Because the federal extension of postpartum Medicaid coverage coincided with the onset of the COVID-19 pandemic, a period marked by unprecedented socioeconomic and healthcare delivery disruptions, and multiple overlapping response policies aimed at expanding access to MOUD, testing whether our estimated effects might be impacted by these concurrent policy, social, and economic changes is important. During this time period, states and the federal government introduced several measures to increase MOUD availability, including telehealth prescribing flexibilities (Ng et al., 2022), 1115 Medicaid waivers (Cohen et al., 2021), reim-

bursement parity for telehealth services (Drake et al., 2020), temporary suspension of prior authorization requirements, and inclusion of methadone coverage in certain state Medicaid programs (Pessar et al., 2021). These policies, while not specific to postpartum individuals, could have broadly influenced MOUD use across populations, as could the pandemic itself through shifts in treatment demand and supply.

We test the robustness of our finding that the Medicaid postpartum coverage extension increases MOUD continuation among Medicaid-financed birthing parents with prenatal MOUD histories by re-estimating the main DiD regressions comparing Medicaid-covered births with commercially insured controls. To account for concurrent policy shocks and pandemic-related disruptions, we sequentially add monthly time-varying indicators for MOUD-related policies (state 1115 Medicaid waiver, prior authorization for buprenorphine, methadone coverage, telemedicine policies, and cost-sharing) and the cumulative number of COVID-19 deaths in the individual’s state of residence as a proxy for pandemic intensity.

As shown in Figures 8 and G1 - G4, the estimated effects of extended postpartum Medicaid coverage on MOUD continuation by payer type and overall remain stable in magnitude and precision across specifications. Coefficient estimates and confidence intervals closely align with the baseline results, indicating that findings are not driven by concurrent MOUD policy expansions or pandemic shocks. These results reinforce our main finding that observed increases in postpartum MOUD continuity during the COVID-19 PHE primarily reflect the causal impact of extended Medicaid coverage and not other changes.

Figure 8: Sensitivity check of adding extra controls on Medicaid sponsored MOUD outcomes



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports event study estimates from a difference-in-differences specification comparing Medicaid-covered MOUD continuation among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially financed births (control group). Models sequentially incorporate controls for contemporaneous MOUD access policies and state-level COVID-19 exposure to evaluate robustness. Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020-2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

6 Discussion

Our study provides the first nationwide population-level evidence on how extended postpartum Medicaid coverage, implemented nationally during the COVID-19 PHE, affects continuity of MOUD among postpartum individuals with prior MOUD use. Our DiD coefficient estimates indicate that the policy modestly increases MOUD continuation, primarily through increases in Medicaid-financed MOUD, with some continued growth among other payers and no substantial displacement of commercially-financed care. Although increases in overall continuation are arguably small in magnitude, they occur within a population at high-risk for OUD and with substantial unmet need for healthcare services (Frankenberger et al., 2023), for whom any sustained treatment could represent a meaningful policy impact (Krans et al., 2021; Schiff et al., 2021; Ahrens et al., 2022). These gains are broadly consistent across subgroups but we document some evidence of modestly larger effects of extended Medicaid coverage among beneficiaries who reside in more urban communities, patterns consistent with differences in treatment capacity and healthcare access documented in prior OUD research (Saloner et al., 2017; Patrick et al., 2015). Moreover, the largest gains in postpartum MOUD continuation emerge in states without other social insurance policies, such as ACA Medicaid expansions or PSL mandates, suggesting that the federal postpartum coverage extension can fill critical gaps in social program availability (Patton et al., 2019).

The results should be interpreted in light of the policy’s unique timing and design. The federal postpartum coverage extension was introduced during a period of administrative, economic, and social disruption, coinciding with COVID-19 pandemic-related economic shocks, telehealth expansions, and changes in opioid treatment delivery, among other factors. These overlapping influences may have attenuated the measured effect of the policy we study. By focusing on postpartum MOUD continuation among individuals already engaged in treatment rather than new initiates, our study mitigates concerns that pandemic-related access disruptions confounded treatment initiation. Yet, even among those with established providers, postpartum treatment engagement is shaped by persistent barriers beyond insurance coverage, including workforce shortages, stigma, childcare demands, and mental health comorbidities, factors that expanded eligibility alone likely cannot fully address. Against this backdrop, even modest gains in MOUD continuity suggest that stable Medicaid coverage can reduce treatment disruptions at a critical juncture for maternal and infant health.

Our findings also contribute to the broader evidence on crowd out in public insurance expansions. After controlling for patient demographics, comorbidities, state fixed effects, and secular time trends, we find little substitution from commercial- to Medicaid-financed

MOUD - consistent with prior evidence that crowd out is limited among populations with low-income, few alternative coverage options, and substantial comorbidities (Dague and Ukert, 2024). The postpartum population, unlike the working-age adults studied in ACA expansion contexts, experiences substantial insurance churn around delivery, making coverage continuity particularly consequential. Even modest substitution, if present, could likely represent a welfare-improving shift toward more stable public coverage rather than inefficient displacement of private financing. Notably, we also observe small but positive increases in postpartum MOUD continuation financed by other, non-Medicaid payers, though these sources of coverage remain limited among postpartum individuals. Such increases may indicate positive spillovers from extended Medicaid postpartum coverage - potentially through strengthened provider capacity, network participation, or other mechanisms linking expanded Medicaid access to broader treatment engagement across payer types. Such cross-market spillovers have been documented in other context, see for example Baicker et al. (2013), Maclean et al. (2018), Einav et al. (2020), and Agniel et al. (2025).

The results suggest that extended postpartum coverage is potentially an important component of a broader set of maternal and behavioral health policy reforms. The federal government’s move in 2022 to permanently authorize 12-month postpartum Medicaid coverage, now adopted by all states, extends beyond the temporary PHE provision. This change has occurred amid renewed pressures on Medicaid eligibility. The 2023-2025 “unwinding” of continuous coverage has led to substantial disenrollment and associated declines in MOUD use (Gupta et al., 2025). Several states have introduced or revived work requirements and other administrative barriers to eligibility renewal. Such policies may disproportionately affect postpartum women, who face competing caregiving demands and unstable employment, heightening risks of coverage loss precisely when continuity of care is most vital.

Additionally, the increase in cash payments for MOUD continuation we observe, alongside the rise in Medicaid-financed MOUD following the Medicaid postpartum coverage extension, may reflect temporary Medicaid denials or coverage gaps due to these administrative disruptions. If unaddressed, such lapses could undermine the continuity extended postpartum Medicaid coverage reforms seek to secure. Strengthening Medicaid’s administrative infrastructure, to ensure uninterrupted eligibility, timely claims processing, and seamless transitions across coverage types, could be critical to translating postpartum extensions into durable improvements in treatment persistence and maternal recovery.

Several limitations warrant caution. First, our data capture only retail pharmacy claims and thus exclude methadone and buprenorphine dispensed through certified opioid treat-

ment programs.¹⁵ In addition, because prescription claims lack information on clinical indication, the analysis includes a small proportion of naltrexone prescriptions that may be used exclusively for alcohol use disorder. Second, small sample sizes preclude separate analyses of continuation through Marketplace coverage, and administrative claims may understate treatment engagement if individuals obtain MOUD through informal, unsubsidized, or overlapping payer sources. While our stratified analyses by age and urbanicity suggest modest heterogeneity, subgroup sizes are limited, reducing precision. Third, unobserved shocks during the pandemic could bias estimates; however, robustness checks adjusting for contemporaneous national policy shifts, such as the expansion of telemedicine flexibilities for buprenorphine initiation (Barsky et al., 2022) and the elimination of the X-waiver requirement which removes caps on the number of patients for buprenorphine care a clinician (outside a certified opioid treatment program) can treat (U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2022; Spetz et al., 2022; Roy et al., 2024; Chua et al., 2024), produce consistent results.

Despite these limitations, the evidence presented in this study taken together indicate that the postpartum Medicaid extension achieved the intended objective of enhancing treatment continuity for a vulnerable group. In the context of a health system where gaps in behavioral health treatment remain wide, even small increases in sustained postpartum care can represent an important improvement in access to care.

7 Conclusion

Our study finds that extended postpartum Medicaid coverage implemented during the COVID-19 Public Health Emergency meaningfully increases MOUD continuation among Medicaid-covered parents, increasing both the duration and intensity of treatment during the first postpartum year. Post-policy, we document a 0.53-month (8.55%) increase in Medicaid-financed MOUD, a 3.61 pp (5.12%) rise in the probability of continuing MOUD beyond 60 days, and a 3.63 pp (7.99%) increase in total annual MOUD days' supply. These gains translate into an aggregate 0.35-month (5.10%) increase in overall MOUD duration and a 4.64% rise in total annual MOUD days' supply, a measure of medication adherence, indicating that the policy expanded treatment rather than merely shifting the payer mix. Results are robust to multiple sensitivity checks - including triple-difference specifications netting out

¹⁵Certified opioid treatment programs are federally regulated facilities authorized by the Substance Abuse and Mental Health Services Administration and the Drug Enforcement Agency to provide MOUD treatment (methadone, buprenorphine, and naltrexone) along with required counseling and supportive services. See Agniel et al. (2025) for more details on certified opioid treatment programs.

secular pandemic shocks, restrictions to pre-pandemic pregnancies to address endogenous fertility, and adjustments for concurrent MOUD access policies and pandemic exposures.

Our findings also underscore the importance of policy context. Gains are concentrated in states without ACA Medicaid expansion or PSL mandates, highlighting how extended postpartum eligibility can offset the absence of broader social protections. Also consistent with broader evidence on access gaps, effects are somewhat larger among parents who are younger and reside in metropolitan areas, reinforcing the importance of sustained coverage for populations facing greater baseline treatment barriers.

Overall, these results underscore the central role of coverage continuity in sustaining access to evidence-based OUD care during a medically and socially vulnerable period. Future research could assess whether ongoing implementation of 12-month coverage reduces reliance on self-pay MOUD and strengthens long-term treatment engagement through increased financial protection and care continuity.

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Supplement:

Medicaid Coverage and Postpartum Opioid Use Disorder Treatment

A Sample Construction and Characteristics

Table A1: Identification of birth deliveries

ICD codes:

V3000, V3100, V3200, V3300, V3400, V3500, V3600, V3700, V3900, V3001, V3101, V3201, V3301, V3401, V3501, V3601, V3701, V3901, V301, V311, V321, V331, V341, V351, V361, V371, V391, V302, V312, V322, V332, V342, V352, V362, V372, V392, Z3800, Z3801, Z381, Z382, Z3830, Z3831, Z384, Z385, Z3861, Z3862, Z3863, Z3864, Z3865, Z3866, Z3868, Z3869, Z387, Z388, 66970, 66971, O80, O82, O7582, and those start with V27, 650, and Z37.

CPT/HCPCS codes:

59200, 59409, 59410, 59414, 59514, 59515, 59612, 59614, 59620, 59622, 59430, 59160, 59300, 59350, 0503F

Notes: Birth deliveries are identified in the IQVIA Dx (medical claims) files using the ICD and CPT/HCPCS codes listed above. To prevent duplication, we require sufficient time gaps between delivery claims to ensure that each delivery episode was counted only once per individual.

Table A2: Identification of MOUD

NDC codes:

Buprenorphine:

00054017613, 00054017713, 00054018813, 00054018913, 00093537856, 00093537956, 00093572056, 00093572156, 00143924605, 00228315303, 00228315403, 00228315473, 00228315503, 00228315567, 00228315573, 00228315603, 00378092393, 00378092493, 00378876716, 00378876793, 00378876816, 00378876893, 00406192303, 00406192403, 00406800503, 00406802003, 00490005100, 00490005130, 00490005160, 00490005190, 00781721606, 00781721664, 00781722706, 00781722764, 00781723806, 00781723864, 00781724906, 00781724964, 12496010001, 12496010002, 12496010005, 12496030001, 12496030002, 12496030005, 12496120201, 12496120203, 12496120401, 12496120403, 12496120801, 12496120803, 12496121201, 12496121203, 12496127802, 12496128302, 12496130602, 12496131002, 16590066605, 16590066630, 16590066705, 16590066730, 16590066790, 23490927003, 23490927006, 23490927009, 35356000407, 35356000430, 35356055530, 35356055630, 38779088800, 38779088801, 38779088803, 38779088805, 38779088806, 38779088809, 42291017430, 42291017530, 42858050103, 42858050203, 43063018407, 43063018430, 43063066706, 43063075306, 43598057901, 43598057930, 43598058001, 43598058030, 43598058101, 43598058130, 43598058201, 43598058230, 47781035503, 47781035511, 47781035603, 47781035611, 47781035703, 47781035711, 47781035803, 47781035811, 49452129201, 49452129202, 49452129203, 49452825301, 49452825302, 49452825303, 49452825304, 49999039507, 49999039515, 49999039530, 49999063830, 49999063930, 50090292400, 50268014411, 50268014415, 50268014511, 50268014515, 50383028793, 50383029493, 50383092493, 50383093093, 51552076501, 51552076502, 51552076505, 51552076506, 51552076509, 51552076510, 51552076550, 51927101200, 52427069203, 52427069211, 52427069403, 52427069411, 52427069803, 52427069811, 52427071203, 52427071211, 52440010014, 52959030430, 52959074930, 53217013830, 53217024630, 54123011430, 54123090730, 54123091430, 54123092930, 54123095730, 54123098630, 54569549600, 54569573900, 54569573901, 54569573902, 54569639900, 54569640800, 54569657800, 54868570700, 54868570701, 54868570702, 54868570703, 54868570704, 54868575000, 55045378403, 55700014730, 55700018430, 55700030230, 55700030330, 55700056804, 55887031204, 55887031215, 58118017608, 58118017708, 58118315608, 58284010014, 59385001201, 59385001230, 59385001401, 59385001430, 59385001601, 59385001630, 60429058611, 60429058630, 60429058633, 60429058711, 60429058730, 60429058733, 60687048111, 60687048121, 60687049211, 60687049221, 60846097003, 60846097103, 62175045232, 62175045832, 62756045964, 62756045983, 62756046064, 62756046083, 62756096964, 62756096983, 62756097083, 62991158301, 62991158302, 62991158303, 62991158304, 62991158306,

62991158307, 62991158308, 63275992201, 63275992202, 63275992203, 63275992204, 63275992205, 63370090506, 63275992207, 63370090509, 63370090510, 63370090515, 63481016101, 63481016160, 63481020701, 63481020760, 63481034801, 63481034860, 63481051901, 63481051960, 63481068501, 63481068560, 63481082001, 63481082060, 63481095201, 63481095260, 63629402801, 63629403401, 63629403402, 63629403403, 63629409201, 63629712501, 63629712502, 63629712503, 63629712504, 63629712505, 63629712506, 63629712507, 63629712601, 63629712602, 63629712603, 63629712604, 63629712605, 63629712606, 63629712607, 63629712608, 63629712609, 63629727001, 63629727002, 63874108403, 63874108503, 63874117303, 63874117403, 64725093003, 64725192403, 65162041503, 65162041509, 65162041603, 65162041609, 66336001530, 66336001630, 67046099030, 67046099130, 67046099230, 67046099330, 67046099430, 67046099530, 67046099630, 67046099730, 67046099830, 67046099930, 68071138003, 68071151003, 68258299103, 68258299903, 68308020230, 68308020830, 69189059101, 70518044200, 70518065200, 70518065201, 70518065202, 70518071100, 70518071101, 70518071102, 70518100700, 70518155700, 70518162500, 70518168400, 70518201400, 70518221600, 70518221700, 70518221800, 70518222600, 70518231100, 70518232700, 71335035301, 71335035302, 71335035303, 71335035304, 71335035305, 71335035306, 71335035307, 71335095001, 71335095002, 71335095003, 71335095004, 71335095005, 71335095006, 71335095007, 71335115401, 71335115402, 71335115403, 71335115404, 71335115405, 71335115406, 71335115407, 71335115408, 71335115409, 71335116301, 71335116302, 71335116303, 71335116304, 71335116305, 71335116306, 71335116307, 71335116308, 71335116309, 71335129601, 71335129602, 71335137801

Naltrexone:

00056001122, 00056001130, 00056001170, 00056007950, 00056008050, 00185003901, 00185003930, 00406009201, 00406009203, 00406117001, 00406117003, 00555090201, 00555090202, 10695006014, 10695006017, 16279008101, 16279008110, 16279008101, 16279008110, 38779088703, 38779088704, 38779088705, 38779088706, 38779088708, 38779088730, 38779088740, 38779088750, 38779088760, 42291063230, 43063059115, 47335032608, 47335032618, 47335032683, 47335032688, 49452480801, 49452480802, 49452483501, 49452483502, 49452483503, 49452483505, 50436010501, 51224020630, 51224020650, 51285027501, 51285027502, 51552073701, 51552073702, 51552073704, 51927275300, 51927354800, 51927360200, 51927437700, 52152010502, 52152010504, 52152010530, 52372075101, 52372075102, 52372075103, 53217026130, 54569672000, 54569913900, 54868557400, 55812033301, 55812033302, 55812033303, 58597840701, 58597840702, 58597840704, 58597840706, 60966014404, 60966024403, 60966034402, 62991124301, 62991124302, 62991124303, 62991124304, 62991312501, 62991312502, 62991312503, 62991312504, 63275990101, 63275990102, 63275990103, 63275990104, 63275990105, 63370015810, 63370015815, 63370015825, 63370015835, 63370015845, 63459030042, 65694010003, 65694010010, 65757030001, 65757030202, 68084029111, 68084029121, 68094085362, 68115068030, 70350782001, 71335001401, 71335001402, 71335001403, 76519116005, 00063450300, 00065757030, 00110980311

CPT/HCPCS codes:

J0571, J0572, J0573, J0574, J0575, G2068, G2079, Q9991, Q9992, G2069, G2070, G2072, J0570

Notes: MOUDs are identified in the IQVIA LRx (pharmacy prescriptions) files using the NDC codes and Dx (medical claims) files using the CPT/HCPCS codes listed above, compiled from established codes used in prior work ([Jones et al., 2022](#); [Busch et al., 2023](#); [Earlywine et al., 2023](#)).

Table A3: Descriptive statistics for Medicaid- and commercially-covered deliveries with any MOUD during the 280 days prior to birth

Treatment sample: Medicaid-covered deliveries with any Medicaid MOUD during 280 days prior to birth														
Birth Year	N of births	Mean age	ADRD	CAD	Cancer	CHF	COPD	Depress	DM	HTN	Liver	Oarth	Renal	Stroke
2019	5,327	29.99	0	0.0004	0.0075	0.0021	0.0036	0.2116	0.0082	0.0274	0.0927	0.0041	0.0021	0
2020	5,616	30.59	0.0004	0.0011	0.0057	0.0030	0.0043	0.2306	0.0128	0.0315	0.0963	0.0053	0.0014	0.0011
2021	5,191	30.76	0	0.0021	0.0071	0.0035	0.0044	0.2628	0.0141	0.0308	0.0915	0.0029	0.0017	0
Total	16,134	30.45	0.0001	0.0012	0.0068	0.0029	0.0041	0.2347	0.0117	0.0299	0.0936	0.0042	0.0017	0.0004

Control sample: Commercial-covered deliveries with any commercial MOUD during 280 days prior to birth														
Birth Year	N of births	Mean age	ADRD	CAD	Cancer	CHF	COPD	Depress	DM	HTN	Liver	Oarth	Renal	Stroke
2019	777	30.07	0	0	0.0077	0.0026	0	0.1918	0.0051	0.0360	0.0566	0.0077	0	0
2020	896	30.76	0	0.0022	0.0167	0	0.0022	0.2054	0.0212	0.0246	0.0580	0.0022	0.0022	0.0011
2021	895	31.19	0	0.0011	0.0156	0.0011	0.0034	0.2704	0.0179	0.0436	0.0480	0.0011	0.0022	0.0011
Total	2,568	30.70	0	0.0012	0.0136	0.0012	0.0019	0.2239	0.0152	0.0347	0.0541	0.0035	0.0016	0.0008

Notes: Authors' calculation of demographic and comorbidity characteristics for the analytic sample of parents with child-births identified in IQVIA Dx claims files between 2019 and 2021. The treatment sample includes Medicaid-financed deliveries with any Medicaid-paid medication for opioid use disorder (MOUD) in the 280 days before delivery. The control sample includes commercially-financed deliveries with any commercial-paid MOUD during the same prepartum period. Comorbidities are identified using ICD diagnosis codes for Alzheimer's disease and related dementias (ADRD), coronary artery disease (CAD), cancer, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), depression, diabetes mellitus (DM), hypertension (HTN), liver disease, osteoarthritis (Oarth), renal disease, and stroke. Means represent the share of births with each comorbidity.

Table A4: Postpartum MOUD prescription coverage by payer type among Medicaid-financed births during standard 60-day (pre-PHE) and extended 12-month (PHE) postpartum Medicaid coverage periods

	Delivery				Two months postpartum				Six months postpartum				12 months postpartum			
	Pre-PHE		PHE		Pre-PHE		PHE		Pre-PHE		PHE		Pre-PHE		PHE	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Medicaid	63.73	3564	63.40	6684	58.21	3255	58.29	6145	49.86	2788	51.27	5405	45.60	2550	46.03	4852
Commercial	4.45	249	3.24	342	5.10	285	3.06	323	5.76	322	2.91	307	5.17	289	2.87	303
Other	0.93	52	0.99	104	1.09	61	1.07	113	1.38	77	0.97	102	1.20	67	1.07	113
Cash	1.68	94	1.07	113	1.86	104	1.02	108	1.91	107	0.83	87	1.70	95	0.69	73
Non-continuing	29.20	1633	31.29	3299	33.74	1887	36.55	3853	41.09	2298	44.02	4641	46.33	2591	49.34	5201

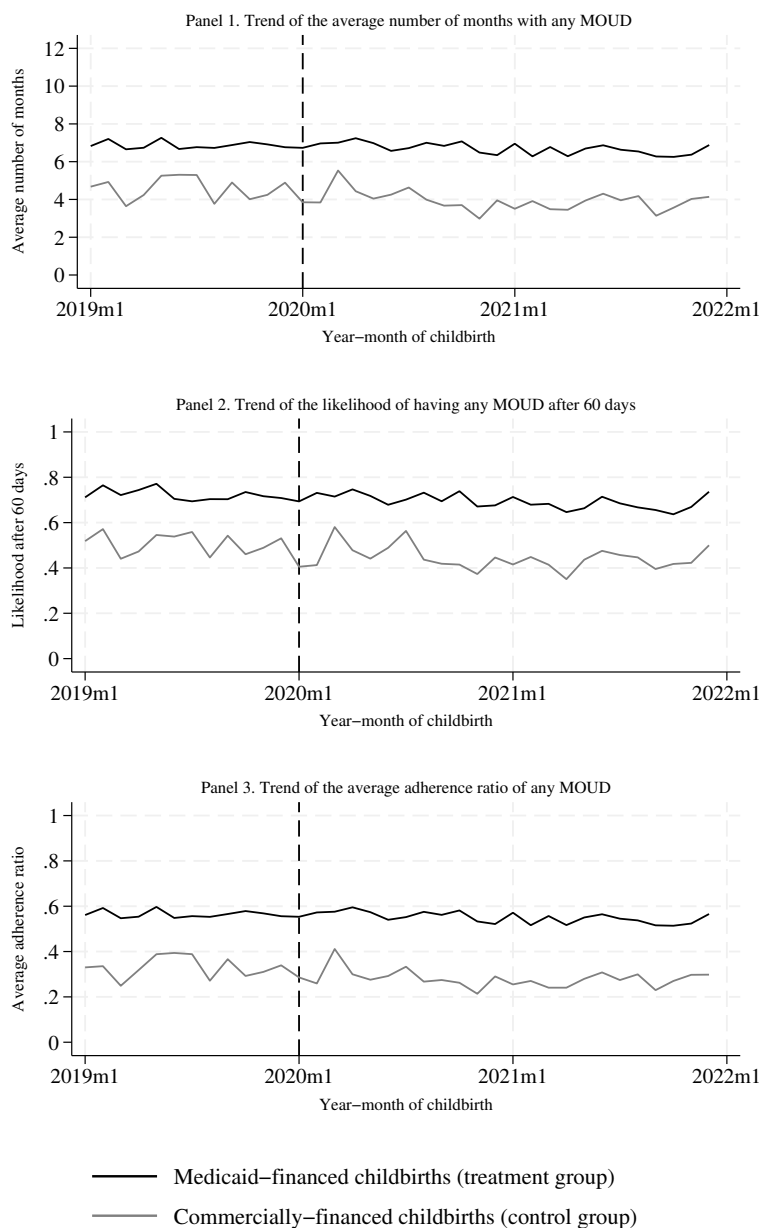
Notes: Authors’ calculations of postpartum MOUD prescription coverage by payer type among parents with Medicaid-financed births, measured at delivery and at two, six, and 12 months postpartum. For each patient × time point × policy period, the primary payer is defined as the source covering the largest share of MOUD days supplied; ties are resolved in the following order: other > uninsured > commercial > Medicaid. Results are shown separately for the pre-PHE period (births from January–December 2019), when postpartum Medicaid eligibility extended to 60 days, and for the PHE period (births from January 2020–December 2021), when eligibility extended to 12 months.

Table A5: Postpartum MOUD prescription coverage by payer type among commercial insurance-financed births during standard 60-day (pre-PHE) and extended 12-month (PHE) postpartum Medicaid coverage periods

	Delivery				Two months postpartum				Six months postpartum				12 months postpartum			
	Pre-PHE		PHE		Pre-PHE		PHE		Pre-PHE		PHE		Pre-PHE		PHE	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Medicaid	18.43	150	20.35	357	17.32	141	20.18	354	17.32	141	19.56	343	18.43	150	19.95	350
Commercial	45.33	369	40.76	715	42.63	347	37.40	656	34.52	281	29.65	520	31.94	260	24.74	434
Other	3.07	25	2.51	44	2.95	24	2.85	50	4.55	37	3.19	56	3.32	27	3.59	63
Cash	1.84	15	1.71	30	1.84	15	1.71	30	1.72	14	2.05	36	1.84	15	2.34	41
Non-continuing	31.33	255	34.66	608	35.26	287	37.86	664	41.89	341	45.55	799	44.47	362	49.37	866

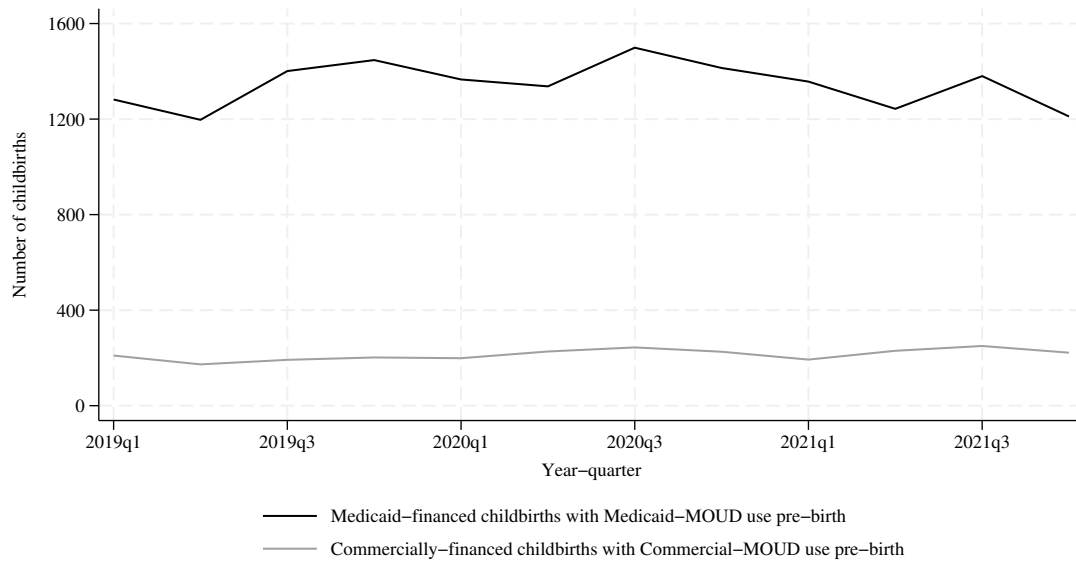
Notes: Authors’ calculations of postpartum MOUD prescription coverage by payer type among parents with Commercially-financed births, measured at delivery and at two, six, and 12 months postpartum. For each patient × time point × policy period, the primary payer is defined as the source covering the largest share of MOUD days supplied; ties are resolved in the following order: other > uninsured > commercial > Medicaid. Results are shown separately for the pre-PHE period (births from January–December 2019), when postpartum Medicaid eligibility extended to 60 days, and for the PHE period (births from January 2020–December 2021), when eligibility extended to 12 months.

Figure A1: One-year postpartum MOUD continuation among Medicaid-financed and commercially financed births, irrespective of payer at follow-up



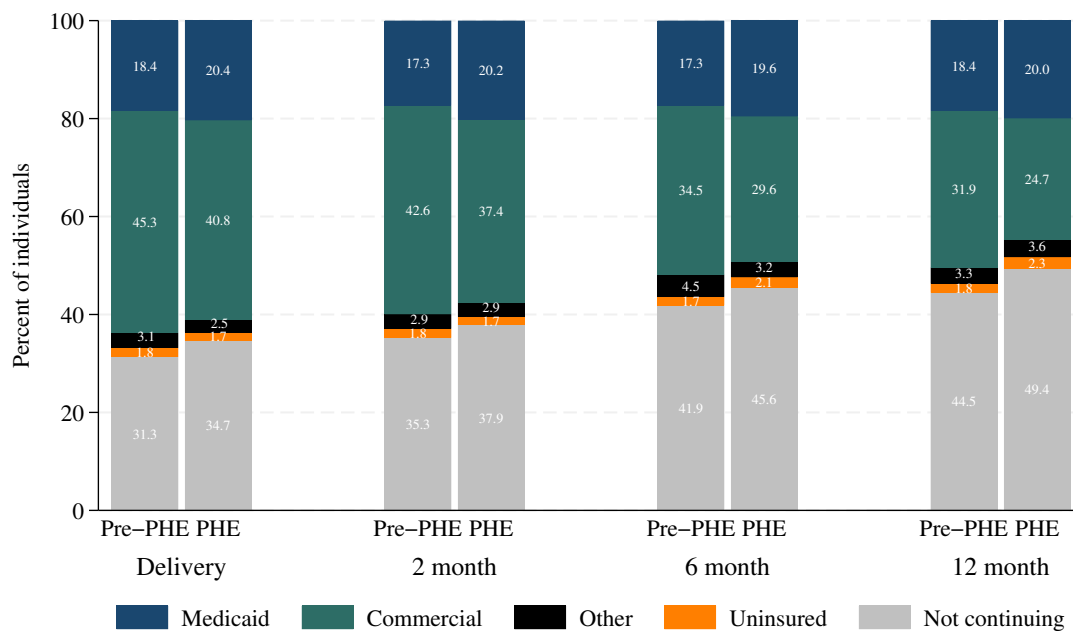
Notes: Authors' calculations using IQVIA all-payer claims (Dx, LRx). Panels show monthly trends in overall (across all payers) MOUD continuation outcomes — (1) average number of months with MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio—during the first postpartum year among parents with Medicaid-covered childbirths, benchmarked against commercially insured parents with commercially-financed births. The vertical line marks January 2020, when postpartum Medicaid eligibility was extended from 60 days to 12 months under the COVID-19 Public Health Emergency. The study sample includes births from January 2019 through December 2021, spanning the policy transition from 60 days of postpartum Medicaid coverage (2019) to 12 months of coverage during the COVID-19 Public Health Emergency (2020–2021).

Figure A2: Trends of the quarterly number of Medicaid- and commercial-insured childbirths with Medicaid and commercial paid MOUD use



Notes: Authors' calculations using IQVIA all-payer claims (Dx). Birth deliveries are identified in the IQVIA Dx (medical claims) files using the ICD and CPT/HCPCS codes listed in Table A1. To prevent duplication, we require sufficient time gaps between delivery claims to ensure that each delivery episode is counted only once per individual. Delivery coverage type is determined based on the primary payer listed on the corresponding delivery claim.

Figure A3: Postpartum MOUD prescription coverage by payer type among commercial insurance-financed births during standard 60-day (pre-PHE) and extended 12-month (PHE) postpartum Medicaid coverage periods



Notes: Authors' calculations of postpartum MOUD prescription coverage by payer type among parents with Commercially-financed births, measured at delivery and at two, six, and 12 months postpartum. For each patient × time point × policy period, the primary payer is defined as the source covering the largest share of MOUD days supplied; ties are resolved in the following order: other > uninsured > commercial > Medicaid. Results are shown separately for the pre-PHE period (births from January–December 2019), when postpartum Medicaid eligibility extended to 60 days, and for the PHE period (births from January 2020–December 2021), when eligibility extended to 12 months.

B Difference-in-differences Estimates of Impact of Extended Postpartum Medicaid Coverage on MOUD Continuation

Table B1: Difference-in-differences regression coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on Medicaid-covered MOUD continuation

	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5344*** (0.1980)	0.0361* (0.0201)	0.0363** (0.0153)
Post	1.6200*** (0.1726)	0.1305*** (0.0174)	0.1275*** (0.0133)
Age	0.4621*** (0.0709)	0.0296*** (0.0070)	0.0378*** (0.0055)
Age ²	-0.0062*** (0.0011)	-0.0004*** (0.0001)	-0.0005*** (0.0001)
ADRD	-1.7904 (4.1843)	-0.2946 (0.3569)	-0.1275 (0.3238)
CAD	-1.1787 (1.0016)	-0.1156 (0.1056)	-0.1083 (0.0721)
Cancer	-0.0394 (0.4018)	0.0116 (0.0373)	0.0015 (0.0321)
CHF	-1.3246** (0.6633)	-0.1021 (0.0686)	-0.1106** (0.0508)
COPD	-0.8656 (0.5295)	-0.0282 (0.0519)	-0.0764* (0.0419)
Depression	-0.4308*** (0.0857)	-0.0167** (0.0083)	-0.0364*** (0.0067)
DM	-0.7497** (0.3201)	-0.0748** (0.0321)	-0.0570** (0.0249)
HTN	-0.3862* (0.2112)	-0.0358* (0.0196)	-0.0261 (0.0166)
Liver disease	-0.4792*** (0.1273)	-0.0240** (0.0121)	-0.0390*** (0.0099)
Oarth	0.4958 (0.5611)	0.0497 (0.0495)	0.0599 (0.0446)
Renal disease	-0.6608 (0.8400)	-0.1150 (0.0881)	-0.0597 (0.0655)
Stroke	-0.1222 (1.8339)	-0.0628 (0.1740)	-0.0399 (0.1421)
Constant	-3.7404*** (1.0867)	0.0157 (0.1082)	-0.3573*** (0.0843)
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.2529	0.7055	0.4542
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing Medicaid-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B2: Difference-in-differences regression coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on commercial-covered MOUD continuation

	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.2926* (0.1661)	-0.0150 (0.0187)	0.0248* (0.0128)
Post	-3.6200*** (0.1504)	-0.3635*** (0.0165)	-0.2684*** (0.0115)
Age	0.0569 (0.0347)	0.0015 (0.0056)	0.0027 (0.0026)
Age ²	-0.0006 (0.0006)	0.0000 (0.0001)	-0.0000 (0.0000)
ADRD	5.4166 (4.1708)	0.3753 (0.3359)	0.3982 (0.3043)
CAD	0.3584 (0.5935)	0.0204 (0.0806)	0.0206 (0.0376)
Cancer	0.5730* (0.2942)	0.0539 (0.0365)	0.0467** (0.0227)
CHF	-0.1732 (0.2274)	-0.0534 (0.0415)	-0.0081 (0.0176)
COPD	-0.1829 (0.1543)	0.0211 (0.0450)	-0.0166 (0.0110)
Depression	-0.1456*** (0.0407)	-0.0100 (0.0065)	-0.0118*** (0.0030)
DM	-0.4315*** (0.1478)	-0.0463** (0.0234)	-0.0334*** (0.0108)
HTN	-0.0513 (0.1116)	-0.0003 (0.0169)	-0.0032 (0.0085)
Liver disease	-0.1631*** (0.0570)	-0.0199** (0.0094)	-0.0116*** (0.0042)
Osteoarthritis	-0.0437 (0.2441)	-0.0164 (0.0357)	0.0025 (0.0194)
Renal disease	0.3682 (0.4281)	0.0630 (0.0745)	0.0314 (0.0314)
Stroke	0.0507 (1.0351)	-0.0978 (0.0849)	0.0080 (0.0744)
Constant	2.9341*** (0.5335)	0.4705*** (0.0862)	0.2295*** (0.0398)
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.7981	0.1960	0.0486
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing commercially-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. *p<0.1, **p<0.05, ***p<0.01.

Table B3: Difference-in-differences regression coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on cash-covered MOUD continuation

	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.4195** (0.1635)	0.0069 (0.0183)	0.0352*** (0.0126)
Post	-4.0915*** (0.1481)	-0.4472*** (0.0162)	-0.3022*** (0.0114)
Age	0.0146 (0.0306)	-0.0003 (0.0048)	-0.0008 (0.0023)
Age ²	0.0000 (0.0005)	0.0000 (0.0001)	0.0000 (0.0000)
ADRD	0.7257 (0.6184)	0.4411 (0.3328)	-0.0095* (0.0056)
CAD	0.2139 (0.4099)	0.0299 (0.0739)	0.0124 (0.0275)
Cancer	0.1026 (0.2258)	-0.0035 (0.0291)	0.0105 (0.0177)
CHF	-0.1364 (0.1880)	-0.0431 (0.0323)	-0.0066 (0.0150)
COPD	-0.0590 (0.1567)	0.0150 (0.0391)	-0.0078 (0.0117)
Depression	-0.1379*** (0.0336)	-0.0132** (0.0054)	-0.0103*** (0.0025)
DM	-0.3371*** (0.1299)	0.0049 (0.0243)	-0.0272*** (0.0094)
HTN	-0.2687*** (0.0849)	-0.0342** (0.0134)	-0.0183*** (0.0065)
Liver disease	-0.1833*** (0.0434)	-0.0250*** (0.0076)	-0.0119*** (0.0032)
Osteoarthritis	-0.0404 (0.2080)	-0.0018 (0.0319)	0.0050 (0.0176)
Renal disease	-0.1112 (0.2488)	-0.0673** (0.0333)	-0.0016 (0.0192)
Stroke	0.2622 (1.0220)	-0.0503 (0.0875)	0.0223 (0.0732)
Constant	3.6847*** (0.4713)	0.5235*** (0.0739)	0.2903*** (0.0353)
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.3757	0.1155	0.0181
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing cash-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. *p<0.1, **p<0.05, ***p<0.01.

Table B4: Difference-in-differences regression coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on other-covered MOUD continuation

	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5429*** (0.1625)	0.0512*** (0.0175)	0.0427*** (0.0125)
Post	-4.3370*** (0.1472)	-0.5272*** (0.0156)	-0.3132*** (0.0113)
Age	0.0354 (0.0288)	0.0029 (0.0040)	0.0012 (0.0022)
Age ²	-0.0003 (0.0005)	-0.0000 (0.0001)	-0.0000 (0.0000)
ADRD	-0.3367*** (0.0803)	-0.0491*** (0.0105)	-0.0260*** (0.0060)
CAD	0.3935 (0.4296)	0.0618 (0.0730)	0.0314 (0.0308)
Cancer	0.0899 (0.2241)	-0.0048 (0.0272)	0.0098 (0.0175)
CHF	-0.0054 (0.1995)	0.0094 (0.0384)	-0.0022 (0.0153)
COPD	-0.2933*** (0.0855)	-0.0314 (0.0256)	-0.0217*** (0.0063)
Depression	-0.0850** (0.0334)	0.0029 (0.0049)	-0.0071*** (0.0025)
DM	-0.3643*** (0.1265)	-0.0321* (0.0185)	-0.0278*** (0.0094)
HTN	-0.2293*** (0.0852)	-0.0254** (0.0121)	-0.0148** (0.0066)
Liver disease	-0.1067** (0.0445)	-0.0012 (0.0071)	-0.0085*** (0.0032)
Osteoarthritis	0.1921 (0.2317)	0.0465 (0.0330)	0.0125 (0.0178)
Renal disease	0.1861 (0.3903)	-0.0205 (0.0447)	0.0114 (0.0247)
Stroke	0.2627 (1.0062)	-0.0253 (0.0863)	0.0219 (0.0727)
Constant	3.4205*** (0.4458)	0.4814*** (0.0612)	0.2614*** (0.0342)
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.1740	0.0458	0.0097
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing other-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. *p<0.1, **p<0.05, ***p<0.01.

Table B5: Difference-in-differences regression coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on aggregate MOUD continuation

	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.3505* (0.1957)	0.0281 (0.0201)	0.0262* (0.0154)
Post	2.3123*** (0.1704)	0.2237*** (0.0175)	0.2374*** (0.0134)
Age	0.4821*** (0.0689)	0.0299*** (0.0070)	0.0384*** (0.0056)
Age ²	-0.0065*** (0.0011)	-0.0004*** (0.0001)	-0.0005*** (0.0001)
ADRD	3.1854*** (0.4633)	0.2080*** (0.0196)	0.2621*** (0.0390)
CAD	-1.3689 (1.0084)	-0.1151 (0.1057)	-0.1151 (0.0812)
Cancer	0.0865 (0.3851)	0.0162 (0.0371)	0.0128 (0.0315)
CHF	-1.3113* (0.6924)	-0.1161* (0.0689)	-0.1068* (0.0569)
COPD	-0.8747* (0.5091)	-0.0299 (0.0519)	-0.0719* (0.0418)
Depression	-0.4845*** (0.0837)	-0.0327*** (0.0083)	-0.0395*** (0.0068)
DM	-0.8400*** (0.3143)	-0.0839*** (0.0317)	-0.0675*** (0.0255)
HTN	-0.2937 (0.2059)	-0.0346* (0.0196)	-0.0207 (0.0168)
Liver disease	-0.4216*** (0.1237)	-0.0401*** (0.0121)	-0.0337*** (0.0101)
Osteoarthritis	0.2528 (0.5510)	0.0256 (0.0515)	0.0243 (0.0454)
Renal disease	-0.6280 (0.8463)	-0.0981 (0.0881)	-0.0492 (0.0694)
Stroke	-0.3947 (1.8332)	-0.0367 (0.1749)	-0.0347 (0.1456)
Constant	-4.1487*** (1.0575)	-0.0809 (0.1081)	-0.3686*** (0.0863)
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.8710	0.7212	0.5647
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing overall MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercial MOUD continuation among parents with commercially-financed births (control group). Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. *p<0.1, **p<0.05, ***p<0.01.

Table B6: Difference-in-differences estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type, during first postpartum year, no covariates

Panel A. Medicaid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5405*** (0.1988)	0.0364* (0.0201)	0.0368** (0.0154)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.2529	0.7055	0.4542
Percentage change	8.64%	5.16%	8.10%
Panel B. Commercial MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.2892* (0.1665)	-0.0157 (0.0187)	0.0245* (0.0128)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.7981	0.1960	0.0486
Percentage change	36.24%	NA	50.41%
Panel C. Cash-paid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.4196** (0.1639)	0.0070 (0.0183)	0.0352*** (0.0126)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.3757	0.1155	0.0181
Percentage change	111.68%	NA	194.48%
Panel D. Other MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.5438*** (0.1628)	0.0516*** (0.0175)	0.0427*** (0.0126)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	0.1740	0.0458	0.0097
Percentage change	312.53%	112.66%	440.21%
Panel E. Aggregated MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
Policy treatment effect	0.3567* (0.1965)	0.0284 (0.0202)	0.0267* (0.0155)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	18,702	18,702	18,702
Outcome mean (treatment group, pre-policy)	6.8710	0.7212	0.5647
Percentage change	5.19%	NA	4.73%

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

C Heterogeneity in Postpartum Medicaid Impacts by State Policies: ACA Medicaid Expansion and PSL Mandates

Table C1: Difference-in-differences coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type and state ACA Medicaid expansion status

Panel A. Medicaid MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
Policy treatment effect	0.0956 (0.2372)	1.8441*** (0.3902)	-0.0013 (0.0241)	0.1329*** (0.0395)	0.0027 (0.0183)	0.1345*** (0.0303)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,909	3,491	14,909	3,491	14,909	3,491
Outcome mean (treatment group, pre-policy)	6.4085	5.5632	0.7137	0.6680	0.4643	0.4085
Percentage change	NA	33.15%	NA	19.90%	NA	32.93%
Panel B. Commercial MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
Policy treatment effect	0.0198 (0.1954)	0.5228 (0.3435)	-0.0365* (0.0221)	-0.0083 (0.0388)	0.0039 (0.0149)	0.0448* (0.0264)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,909	3,491	14,909	3,491	14,909	3,491
Outcome mean (treatment group, pre-policy)	0.6206	1.6341	0.1714	0.3094	0.0377	0.1007
Percentage change	NA	NA	-21.27%	NA	NA	44.46%
Panel C. Cash-paid MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
Policy treatment effect	0.1563 (0.1927)	0.6453* (0.3330)	-0.0086 (0.0216)	-0.0261 (0.0381)	0.0138 (0.0148)	0.0604** (0.0255)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,909	3,491	14,909	3,491	14,909	3,491
Outcome mean (treatment group, pre-policy)	0.2375	1.0092	0.0878	0.2436	0.0106	0.0531
Percentage change	NA	63.94%	NA	NA	NA	113.81%
Panel D. Other MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
Policy treatment effect	0.2337 (0.1920)	1.1677*** (0.3238)	0.0331 (0.0209)	0.0705** (0.0346)	0.0184 (0.0147)	0.0926*** (0.0251)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,909	3,491	14,909	3,491	14,909	3,491
Outcome mean (treatment group, pre-policy)	0.1683	0.1912	0.0427	0.0565	0.0091	0.0114
Percentage change	NA	610.85%	NA	124.80%	NA	810.09%
Panel E. Aggregated MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
Policy treatment effect	-0.0372 (0.2359)	1.1930*** (0.3797)	-0.0004 (0.0241)	0.0849** (0.0393)	-0.0046 (0.0186)	0.0945*** (0.0299)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	14,909	3,491	14,909	3,491	14,909	3,491
Outcome mean (treatment group, pre-policy)	6.8487	6.9987	0.7117	0.7667	0.5629	0.5752
Percentage change	NA	17.05%	NA	11.08%	NA	16.43%

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion. Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. We exclude states that expanded Medicaid during the study period (Missouri, Nebraska, and Oklahoma) to avoid overlapping policy changes. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

Table C2: Difference-in-differences coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type and state PSL mandate status

Panel A. Medicaid MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
Policy treatment effect		-0.2895 (0.4261)	0.8079*** (0.2306)	-0.0367 (0.0432)	0.0590** (0.0234)	-0.0287 (0.0334)	0.0583*** (0.0178)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		5,264	12,252	5,264	12,252	5,264	12,252
Outcome mean (treatment group, pre-policy)		5.9373	6.3493	0.6723	0.7167	0.4363	0.4579
Percentage change		NA	12.72%	NA	8.23%	NA	12.73%
Panel B. Commercial MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
Policy treatment effect		-0.1847 (0.3437)	0.3849** (0.1942)	-0.0486 (0.0387)	-0.0161 (0.0222)	-0.0175 (0.0268)	0.0354** (0.0149)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		5,264	12,252	5,264	12,252	5,264	12,252
Outcome mean (treatment group, pre-policy)		0.4324	0.9504	0.1299	0.2283	0.0253	0.0575
Percentage change		NA	40.50%	NA	NA	NA	61.44%
Panel C. Cash-paid MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
Policy treatment effect		-0.1604 (0.3339)	0.5397*** (0.1920)	-0.0230 (0.0373)	0.0068 (0.0218)	-0.0158 (0.0262)	0.0481*** (0.0147)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		5,264	12,252	5,264	12,252	5,264	12,252
Outcome mean (treatment group, pre-policy)		0.1713	0.4900	0.0569	0.1462	0.0085	0.0236
Percentage change		NA	110.12%	NA	NA	NA	204.23%
Panel D. Other MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
Policy treatment effect		-0.1440 (0.3333)	0.7183*** (0.1903)	-0.0142 (0.0367)	0.0679*** (0.0206)	-0.0143 (0.0262)	0.0587*** (0.0146)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		5,264	12,252	5,264	12,252	5,264	12,252
Outcome mean (treatment group, pre-policy)		0.1597	0.1811	0.0362	0.0502	0.0104	0.0093
Percentage change		NA	396.69%	NA	135.30%	NA	627.75%
Panel E. Aggregated MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
Policy treatment effect		-0.4405 (0.4276)	0.6128*** (0.2262)	-0.0175 (0.0434)	0.0412* (0.0234)	-0.0384 (0.0343)	0.0491*** (0.0178)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		5,264	12,252	5,264	12,252	5,264	12,252
Outcome mean (treatment group, pre-policy)		6.3157	7.0607	0.6503	0.7478	0.5191	0.5803
Percentage change		NA	8.68%	NA	5.52%	NA	8.46%

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without PSL mandates. Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. We exclude states that adopted PSL mandates during the study period (Colorado, New Mexico, and New York) to avoid overlapping policy changes. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

D Heterogeneity by Age and Urbanacity

Table D1: Difference-in-differences coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by age group

Panel A. Medicaid MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		<30 years	≥30 years	<30 years	≥30 years	<30 years	≥30 years
Policy treatment effect		0.5424* (0.2905)	0.5174* (0.2698)	0.0229 (0.0304)	0.0454* (0.0266)	0.0357 (0.0222)	0.0360* (0.0211)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,197	10,505	8,197	10,505	8,197	10,505	10,505
Outcome mean (treatment group, pre-policy)		6.0296	6.4614	0.6909	0.7191	0.4346	0.4726
Percentage change		9.00%	8.01%	NA	6.31%	NA	7.62%
Panel B. Commercial MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		<30 years	≥30 years	<30 years	≥30 years	<30 years	≥30 years
Policy treatment effect		0.4889** (0.2417)	0.1994 (0.2269)	-0.0084 (0.0283)	-0.0155 (0.0250)	0.0394** (0.0183)	0.0185 (0.0176)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,197	10,505	8,197	10,505	8,197	10,505	10,505
Outcome mean (treatment group, pre-policy)		0.7949	0.8011	0.1892	0.2024	0.0493	0.0480
Percentage change		61.50%	NA	NA	NA	79.92%	NA
Panel C. Cash-paid MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		<30 years	≥30 years	<30 years	≥30 years	<30 years	≥30 years
Policy treatment effect		0.6284*** (0.2402)	0.3134 (0.2208)	0.0123 (0.0278)	0.0039 (0.0241)	0.0494*** (0.0182)	0.0291* (0.0171)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,197	10,505	8,197	10,505	8,197	10,505	10,505
Outcome mean (treatment group, pre-policy)		0.3743	0.3770	0.1155	0.1155	0.0184	0.0179
Percentage change		167.89%	NA	NA	NA	268.48%	162.57%
Panel D. Other MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		<30 years	≥30 years	<30 years	≥30 years	<30 years	≥30 years
Policy treatment effect		0.7767*** (0.2390)	0.4130* (0.2193)	0.0559** (0.0267)	0.0500** (0.0231)	0.0596*** (0.0182)	0.0343** (0.0171)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,197	10,505	8,197	10,505	8,197	10,505	10,505
Outcome mean (treatment group, pre-policy)		0.1499	0.1965	0.0422	0.0491	0.0087	0.0106
Percentage change		518.15%	210.18%	132.46%	101.83%	685.06%	323.58%
Panel E. Aggregated MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		<30 years	≥30 years	<30 years	≥30 years	<30 years	≥30 years
Policy treatment effect		0.3874 (0.2867)	0.3056 (0.2669)	0.0314 (0.0304)	0.0258 (0.0269)	0.0276 (0.0224)	0.0239 (0.0212)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,197	10,505	8,197	10,505	8,197	10,505	10,505
Outcome mean (treatment group, pre-policy)		6.6546	7.0733	0.7049	0.7364	0.5470	0.5814
Percentage change		NA	NA	NA	NA	NA	NA

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Models assess heterogeneity by parental age, contrasting effects for parents at and above versus below the median. Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

Table D2: Difference-in-differences coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by urbanicity

Panel A. Medicaid MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan
Policy treatment effect		0.5645*** (0.2162)	0.3934 (0.4875)	0.0318 (0.0218)	0.0595 (0.0514)	0.0404** (0.0168)	0.0171 (0.0371)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		15,644	3,056	15,644	3,056	15,644	3,056
Outcome mean (treatment group, pre-policy)		6.1345	6.7797	0.6980	0.7388	0.4444	0.4980
Percentage change		9.20%	NA	NA	NA	9.09%	NA
Panel B. Commercial MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan
Policy treatment effect		0.2993* (0.1814)	0.1563 (0.4004)	-0.0208 (0.0203)	0.0013 (0.0488)	0.0260* (0.0140)	0.0103 (0.0300)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		15,644	3,056	15,644	3,056	15,644	3,056
Outcome mean (treatment group, pre-policy)		0.8090	0.7495	0.1989	0.1832	0.0493	0.0456
Percentage change		37.00%	NA	NA	NA	52.74%	NA
Panel C. Cash-paid MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan
Policy treatment effect		0.3947** (0.1783)	0.5729 (0.3933)	-0.0007 (0.0197)	0.0631 (0.0476)	0.0342** (0.0138)	0.0391 (0.0293)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		15,644	3,056	15,644	3,056	15,644	3,056
Outcome mean (treatment group, pre-policy)		0.3671	0.4142	0.1124	0.1296	0.0179	0.0191
Percentage change		107.52%	NA	NA	NA	332.04%	NA
Panel D. Other MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan
Policy treatment effect		0.5340*** (0.1776)	0.5459 (0.3864)	0.0431** (0.0190)	0.0949** (0.0446)	0.0425*** (0.0137)	0.0394 (0.0290)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		15,644	3,056	15,644	3,056	15,644	3,056
Outcome mean (treatment group, pre-policy)		0.1789	0.1520	0.0466	0.0419	0.0103	0.0068
Percentage change		298.49%	NA	92.49%	226.49%	412.62%	NA
Panel E. Aggregated MOUD		Number of months with MOUD		Continued MOUD after 60-day		Number of MOUD supply days/365	
		Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan	Metropolitan	Non-metropolitan
Policy treatment effect		0.3690* (0.2140)	0.2515 (0.4714)	0.0268 (0.0219)	0.0347 (0.0508)	0.0284* (0.0169)	0.0143 (0.0367)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations		15,644	3,056	15,644	3,056	15,644	3,056
Outcome mean (treatment group, pre-policy)		6.7606	7.3623	0.7131	0.7573	0.5557	0.6051
Percentage change		5.46%	NA	NA	NA	5.11%	NA

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Models assess heterogeneity by urbanicity, contrasting effects for parents in metropolitan vs non-metropolitan zip codes. Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

E Triple Difference Estimator

The difference-in-difference-in-difference (triple-difference) specification is estimated using the specification outlined in Equation E1:

$$\begin{aligned}
 Y_{istp} = & \beta_0 + \beta_1 Birth_{Medicaid} + \beta_2 Post_t + \beta_3 Pandemic_p \\
 & + \beta_4 (Birth_{Medicaid} \times Post_t) + \beta_5 (Birth_{Medicaid} \times Pandemic_p) + \beta_6 (Post_t \times Pandemic_p) \\
 & + \beta_7 (Birth_{Medicaid} \times Post_t \times Pandemic_p) + \delta X_i + \theta_s + \gamma_t + \epsilon_{istp}
 \end{aligned}
 \tag{E1}$$

where Y_{istp} is an indicator for postpartum MOUD continuation for individual i in state s , at time t , and policy period $Pandemic_p$ (indicator for whether the observation belongs to the COVID-19-era cohort [2019-2023] or to the pre-pandemic historical cohort [2016-2018]). The variable $Birth_{Medicaid}$ identifies whether the birth is covered by Medicaid or commercial insurance; and $Post_t$ denotes within each pandemic or prepandemic cohort the post-policy period (2017-2018 births in the prepandemic and 2020-2021 births in the pandemic cohort, with the latter alone having access to extended postpartum coverage for Medicaid parents). The remaining covariates are defined and interpreted consistently with those in the primary DiD specification. The vector X_i includes maternal-level covariates - age and comorbidities, and state-level policy controls, while θ_s and γ_t capture state and month-year fixed effects. The term ϵ_{istp} represents the error term, with heteroskedasticity-robust standard errors.

The coefficient of interest, β_7 , represents the triple-difference estimate of treatment effects, capturing the incremental effect of the postpartum Medicaid extension on MOUD continuation among Medicaid birthing parents, net of temporal shocks common to both insurance groups and pandemic-related changes in healthcare use or treatment access. A positive and statistically significant $\hat{\beta}_7$ would indicate that postpartum MOUD continuation increases more among Medicaid-insured parents relative to commercially-insured parents, above and beyond general pandemic-driven shifts, thereby supporting our primary hypothesis that the extended postpartum Medicaid coverage increases continuity of MOUD treatment.

Table E1: **Triple difference coefficient estimates** of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type, during first postpartum year

Panel A. Medicaid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
DDD coefficient	0.5455* (0.2868)	0.0233 (0.0296)	0.0485** (0.0222)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	35,569	35,569	35,569
Outcome mean (treatment group, pre-policy)	6.2529	0.7055	0.4542
Percentage change	8.72%	NA	10.68%
Panel B. Commercial MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
DDD coefficient	0.3353 (0.2492)	-0.0293 (0.0281)	0.0269 (0.0192)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	35,569	35,569	35,569
Outcome mean (treatment group, pre-policy)	0.7981	0.1960	0.0486
Percentage change	NA	NA	NA
Panel C. Cash-paid MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
DDD coefficient	0.6366*** (0.2449)	0.0397 (0.0277)	0.0478** (0.0189)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	35,569	35,569	35,569
Outcome mean (treatment group, pre-policy)	0.3757	0.1155	0.0181
Percentage change	169.44%	NA	264.09%
Panel D. Other MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
DDD coefficient	0.8033*** (0.2440)	0.0754*** (0.0267)	0.0608*** (0.0189)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	35,569	35,569	35,569
Outcome mean (treatment group, pre-policy)	0.1740	0.0458	0.0097
Percentage change	461.67%	164.63%	626.80%
Panel E. Aggregated MOUD			
	(1) Number of months with MOUD	(2) Continued MOUD after 60-day	(3) Number of MOUD supply days/365
DDD coefficient	0.4124 (0.2812)	0.0440 (0.0294)	0.0289 (0.0222)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	35,569	35,569	35,569
Outcome mean (treatment group, pre-policy)	6.8710	0.7212	0.5647
Percentage change	NA	NA	NA

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The exhibits report triple-difference estimates extending the main difference-in-differences design by incorporating a pre-pandemic Medicaid-commercial cohort to net out secular COVID-19-related shocks unrelated to postpartum Medicaid eligibility. The triple-difference specification compares changes in postpartum MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) relative to commercially-financed births (control group), before and after the policy change, and across pandemic versus pre-pandemic birth cohorts, by payer and overall. Outcomes include: (1) number of months with MOUD, (2) continuation beyond 60 days, and (3) annual adherence ratio. The analytic sample includes births from January 2019 to December 2021 (pandemic cohorts) and a historical pre-pandemic comparison cohort with births from January 2016 to December 2018, constructed analogously. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table E2: **Triple difference coefficient estimates** of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type and state ACA Medicaid expansion status

Panel A. Medicaid MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
DDD coefficient	-0.0055 (0.3559)	1.8947*** (0.5493)	-0.0222 (0.0370)	0.0933 (0.0579)	0.0102 (0.0275)	0.1402*** (0.0427)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	26,163	6,655	26,163	6,655	26,163	6,655
Outcome mean (treatment group, pre-policy)	6.4084	5.5632	0.7134	0.6680	0.4640	0.4085
Percentage change	NA	34.06%	NA	NA	NA	34.32%
Panel B. Commercial MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
DDD coefficient	0.0853 (0.3104)	0.4323 (0.5019)	-0.0651* (0.0353)	-0.0051 (0.0565)	0.0105 (0.0238)	0.0344 (0.0386)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	26,163	6,655	26,163	6,655	26,163	6,655
Outcome mean (treatment group, pre-policy)	0.5711	1.6341	0.1667	0.3094	0.0342	0.1007
Percentage change	NA	NA	-39.02%	NA	NA	NA
Panel C. Cash MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
DDD coefficient	0.2767 (0.3065)	0.9048* (0.4856)	0.0160 (0.0350)	-0.0268 (0.0558)	0.0212 (0.0235)	0.0748** (0.0373)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	26,163	6,655	26,163	6,655	26,163	6,655
Outcome mean (treatment group, pre-policy)	0.2197	1.0092	0.0828	0.2436	0.0097	0.0531
Percentage change	NA	89.65%	NA	NA	NA	140.95%
Panel D. Other MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
DDD coefficient	0.3183 (0.3064)	1.7527*** (0.4725)	0.0293 (0.0338)	0.1294** (0.0522)	0.0274 (0.0236)	0.1287*** (0.0365)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	26,163	6,655	26,163	6,655	26,163	6,655
Outcome mean (treatment group, pre-policy)	0.1710	0.1912	0.0426	0.0565	0.0092	0.0114
Percentage change	NA	916.85%	NA	228.94%	NA	1126.14%
Panel E. Aggregated MOUD	(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
	ACA expansion	No ACA	ACA expansion	No ACA	ACA expansion	No ACA
DDD coefficient	0.0065 (0.3528)	1.0565* (0.5422)	0.0126 (0.0369)	0.0778 (0.0569)	0.0011 (0.0277)	0.0742* (0.0428)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	26,163	6,655	26,163	6,655	26,163	6,655
Outcome mean (treatment group, pre-policy)	6.8206	6.9987	0.7070	0.7667	0.5606	0.5752
Percentage change	NA	15.10%	NA	NA	NA	12.90%

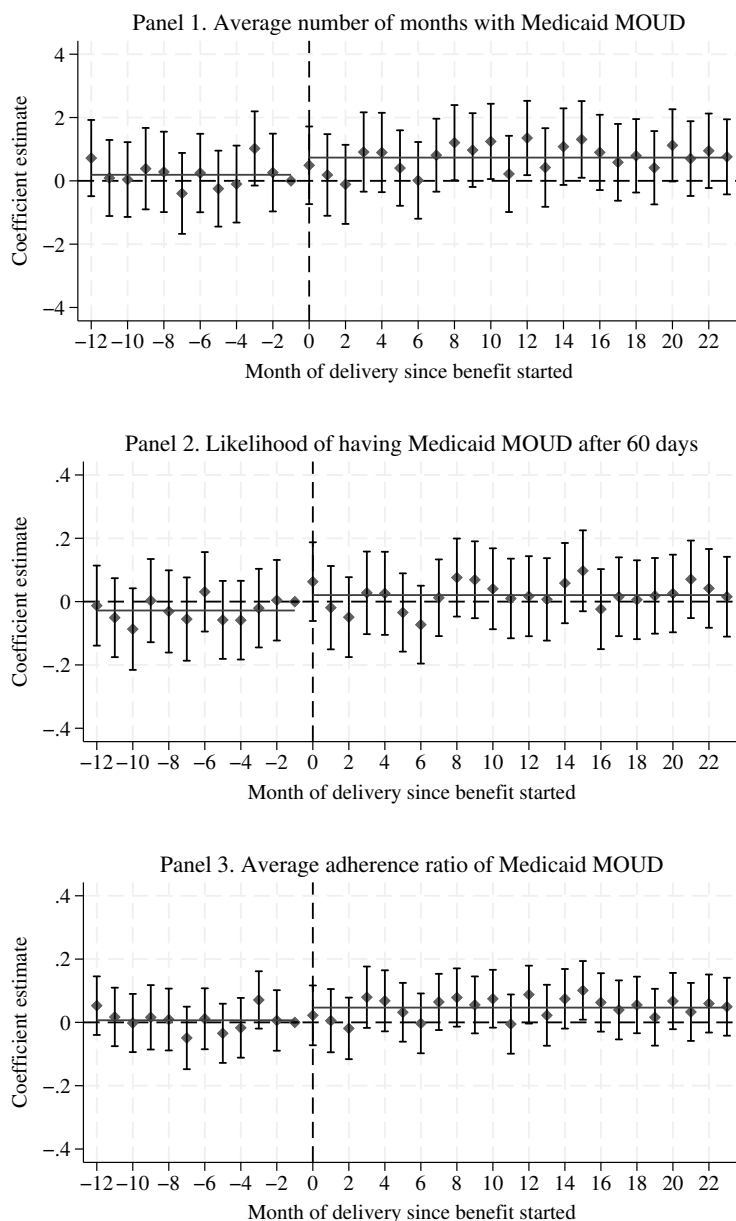
Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The exhibits report triple-difference estimates extending the main difference-in-differences design by incorporating a pre-pandemic Medicaid-commercial cohort to net out secular COVID-19-related shocks unrelated to postpartum Medicaid eligibility. The triple-difference specification compares changes in postpartum MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) relative to commercially-financed births (control group), before and after the policy change, and across pandemic versus pre-pandemic birth cohorts, by payer and overall. Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion. Outcomes include: (1) number of months with MOUD, (2) continuation beyond 60 days, and (3) annual adherence ratio. The analytic sample includes births from January 2019 to December 2021 (pandemic cohorts) and a historical pre-pandemic comparison cohort with births from January 2016 to December 2018, constructed analogously. We exclude states that expanded Medicaid during the study period (Arizona, Idaho, Louisiana, Maine, Maryland, Missouri, Nebraska, New Jersey, Oklahoma, Oregon, Rhode Island, Utah, Virginia, Vermont, and Washington) to avoid overlapping policy changes. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

Table E3: **Triple difference coefficient estimates** of the impact of extended 12-month postpartum Medicaid coverage on MOUD continuation, by payer type and state PSL mandate status

Panel A. Medicaid MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
DDD coefficient		-1.4382 (1.1842)	0.7521** (0.3284)	-0.1559 (0.1177)	0.0474 (0.0341)	-0.1049 (0.0924)	0.0653*** (0.0253)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,936	24,414	1,936	24,414	1,936	24,414	24,414
Outcome mean (treatment group, pre-policy)	6.2574	6.3493	0.6667	0.7167	0.4640	0.4579	0.4579
Percentage change	NA	11.84%	NA	NA	NA	14.26%	14.26%
Panel B. Commercial MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
DDD coefficient		-0.1605 (0.9904)	0.5047* (0.2856)	-0.0618 (0.1086)	-0.0208 (0.0327)	-0.0137 (0.0770)	0.0433** (0.0219)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,936	24,414	1,936	24,414	1,936	24,414	24,414
Outcome mean (treatment group, pre-policy)	0.2489	0.9504	0.0886	0.2283	0.0119	0.0575	0.0575
Percentage change	NA	53.11%	NA	NA	NA	75.28%	75.28%
Panel C. Cash MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
DDD coefficient		-0.4790 (0.9725)	0.8628*** (0.2804)	-0.0461 (0.1035)	0.0583* (0.0323)	-0.0425 (0.0759)	0.0684*** (0.0215)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,936	24,414	1,936	24,414	1,936	24,414	24,414
Outcome mean (treatment group, pre-policy)	0.0802	0.4900	0.0422	0.1462	0.0035	0.0236	0.0236
Percentage change	NA	176.07%	NA	39.92%	NA	290.26%	290.26%
Panel D. Other MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
DDD coefficient		-0.5047 (0.9729)	0.9914*** (0.2782)	-0.0540 (0.1020)	0.0986*** (0.0307)	-0.0434 (0.0759)	0.0775*** (0.0214)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,936	24,414	1,936	24,414	1,936	24,414	24,414
Outcome mean (treatment group, pre-policy)	0.0253	0.1811	0.0042	0.0502	0.0013	0.0093	0.0093
Percentage change	NA	547.50%	NA	196.46%	NA	829.14%	829.14%
Panel E. Aggregated MOUD		(1) Number of months with MOUD		(2) Continued MOUD after 60-day		(3) Number of MOUD supply days/365	
		PSL mandate	No PSL mandate	PSL mandate	No PSL mandate	PSL mandate	No PSL mandate
DDD coefficient		-1.2770 (1.1785)	0.5496* (0.3205)	-0.0882 (0.1186)	0.0468 (0.0337)	-0.1078 (0.0937)	0.0419* (0.0252)
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,936	24,414	1,936	24,414	1,936	24,414	24,414
Outcome mean (treatment group, pre-policy)	6.3895	7.0607	0.6414	0.7478	0.5252	0.5803	0.5803
Percentage change	NA	7.78%	NA	NA	NA	7.23%	7.23%

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The exhibits report triple-difference estimates extending the main difference-in-differences design by incorporating a pre-pandemic Medicaid-commercial cohort to net out secular COVID-19-related shocks unrelated to postpartum Medicaid eligibility. The triple-difference specification compares changes in postpartum MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) relative to commercially-financed births (control group), before and after the policy change, and across pandemic versus pre-pandemic birth cohorts, by payer and overall. Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without PSL mandate. Outcomes include: (1) number of months with MOUD, (2) continuation beyond 60 days, and (3) annual adherence ratio. The analytic sample includes births from January 2019 to December 2021 (pandemic cohorts) and a historical pre-pandemic comparison cohort with births from January 2016 to December 2018, constructed analogously. We exclude states that adopted PSL mandates during the study period (Colorado, New Mexico, and New York) to avoid overlapping policy changes. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. *p<0.1, **p<0.05, ***p<0.01.

Figure E1: Event study coefficient estimates of the impact of extended 12-month postpartum Medicaid coverage on Medicaid-financed MOUD continuation during the first postpartum year, in the **triple differences sample**



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The exhibits report triple-difference event study estimates extending the main difference-in-differences design by incorporating a pre-pandemic Medicaid-commercial cohort to net out secular COVID-19-related shocks unrelated to postpartum Medicaid eligibility. The triple-difference specification compares changes in Medicaid-covered postpartum MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) relative to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group), before and after the policy change, and across pandemic versus pre-pandemic birth cohorts, by payer and overall. Outcomes include: (1) number of months with MOUD, (2) continuation beyond 60 days, and (3) annual adherence ratio. The analytic sample includes births from January 2019 to December 2021 (pandemic cohorts) and a historical pre-pandemic comparison cohort with births from January 2016 to December 2018, constructed analogously. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

F Sensitivity of Coverage Effects to Fertility Endogeneity

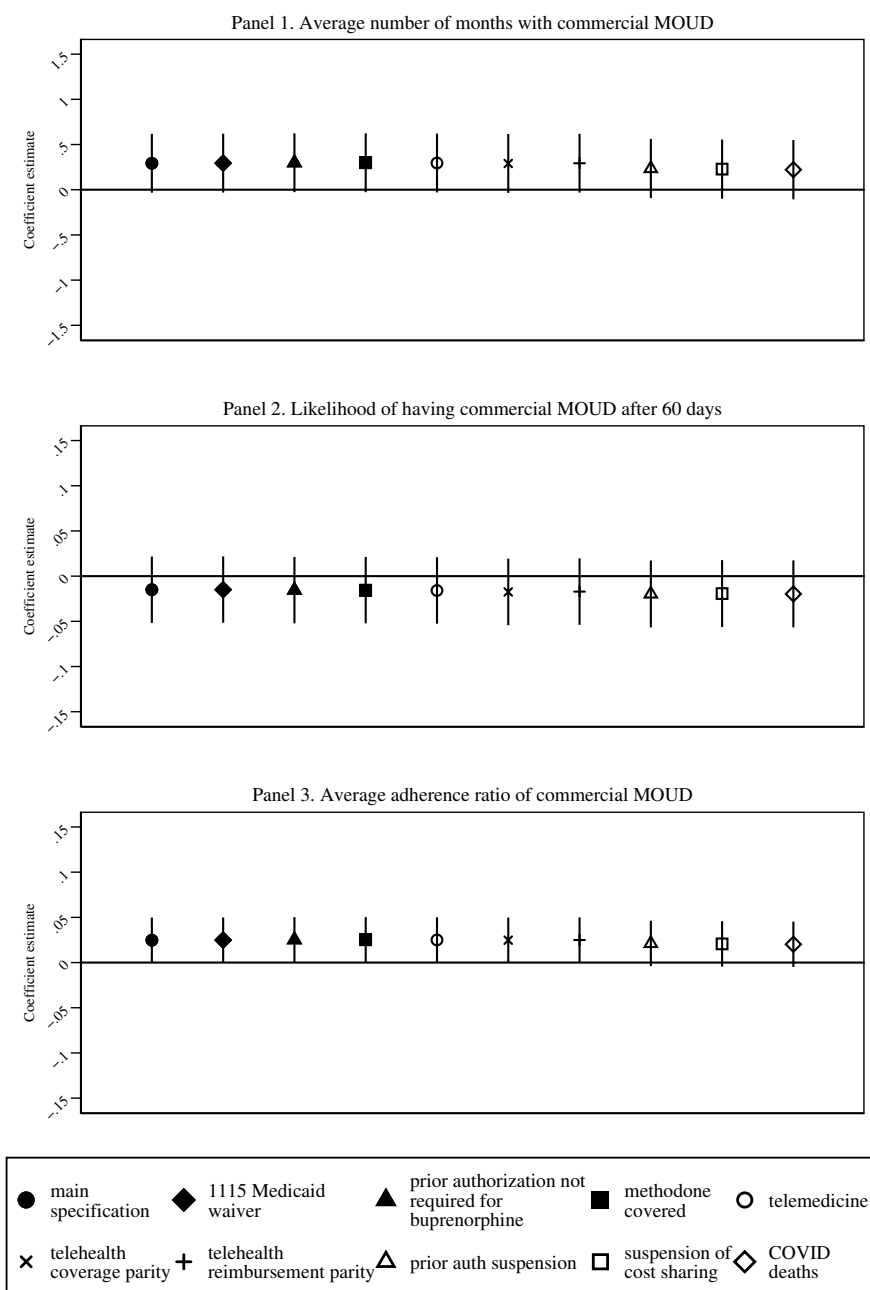
Table F1: Sensitivity of main results to potential endogenous fertility

Panel A. Medicaid MOUD			
	(1)	(2)	(3)
	Number of months with MOUD	Continued MOUD after 60-day	Number of MOUD supply days/365
Policy treatment effect	0.4470** (0.2221)	0.0223 (0.0224)	0.0305* (0.0172)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	12,615	12,615	12,615
Outcome mean (treatment group, pre-policy)	6.2529	0.7055	0.4542
Percentage change	7.15%	NA	6.72%
Panel B. Commercial MOUD			
	(1)	(2)	(3)
	Number of months with MOUD	Continued MOUD after 60-day	Number of MOUD supply days/365
Policy treatment effect	0.2154 (0.1807)	-0.0201 (0.0207)	0.0200 (0.0138)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	12,615	12,615	12,615
Outcome mean (treatment group, pre-policy)	0.7981	0.1960	0.0486
Percentage change	NA	NA	NA
Panel C. Cash-paid MOUD			
	(1)	(2)	(3)
	Number of months with MOUD	Continued MOUD after 60-day	Number of MOUD supply days/365
Policy treatment effect	0.3301* (0.1771)	-0.0018 (0.0201)	0.0296** (0.0136)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	12,615	12,615	12,615
Outcome mean (treatment group, pre-policy)	0.3757	0.1155	0.0181
Percentage change	87.86%	NA	163.54%
Panel D. Other MOUD			
	(1)	(2)	(3)
	Number of months with MOUD	Continued MOUD after 60-day	Number of MOUD supply days/365
Policy treatment effect	0.4080** (0.1757)	0.0308 (0.0191)	0.0349** (0.0135)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	12,615	12,615	12,615
Outcome mean (treatment group, pre-policy)	0.1740	0.0458	0.0097
Percentage change	234.48%	NA	359.79%
Panel E. Aggregated MOUD			
	(1)	(2)	(3)
	Number of months with MOUD	Continued MOUD after 60-day	Number of MOUD supply days/365
Policy treatment effect	0.2925 (0.2192)	0.0263 (0.0225)	0.0244 (0.0174)
State FE	Yes	Yes	Yes
Year-month FE	Yes	Yes	Yes
Observations	12,615	12,615	12,615
Outcome mean (treatment group, pre-policy)	6.8710	0.7212	0.5647
Percentage change	NA	NA	NA

Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The table reports estimates from a difference-in-differences specification comparing MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to MOUD continuation among parents with commercially-financed births (control group), by payer (Panels A-D) and overall (Panel E). Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2020, thereby limiting to births most likely conceived before the COVID-19 pandemic and therefore plausibly exogenous to the policy change, but still spanning both pre- (2019 births) and post- (2020 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Heteroskedasticity-robust standard errors are reported in parentheses. Percentage changes are shown for statistically significant coefficients. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

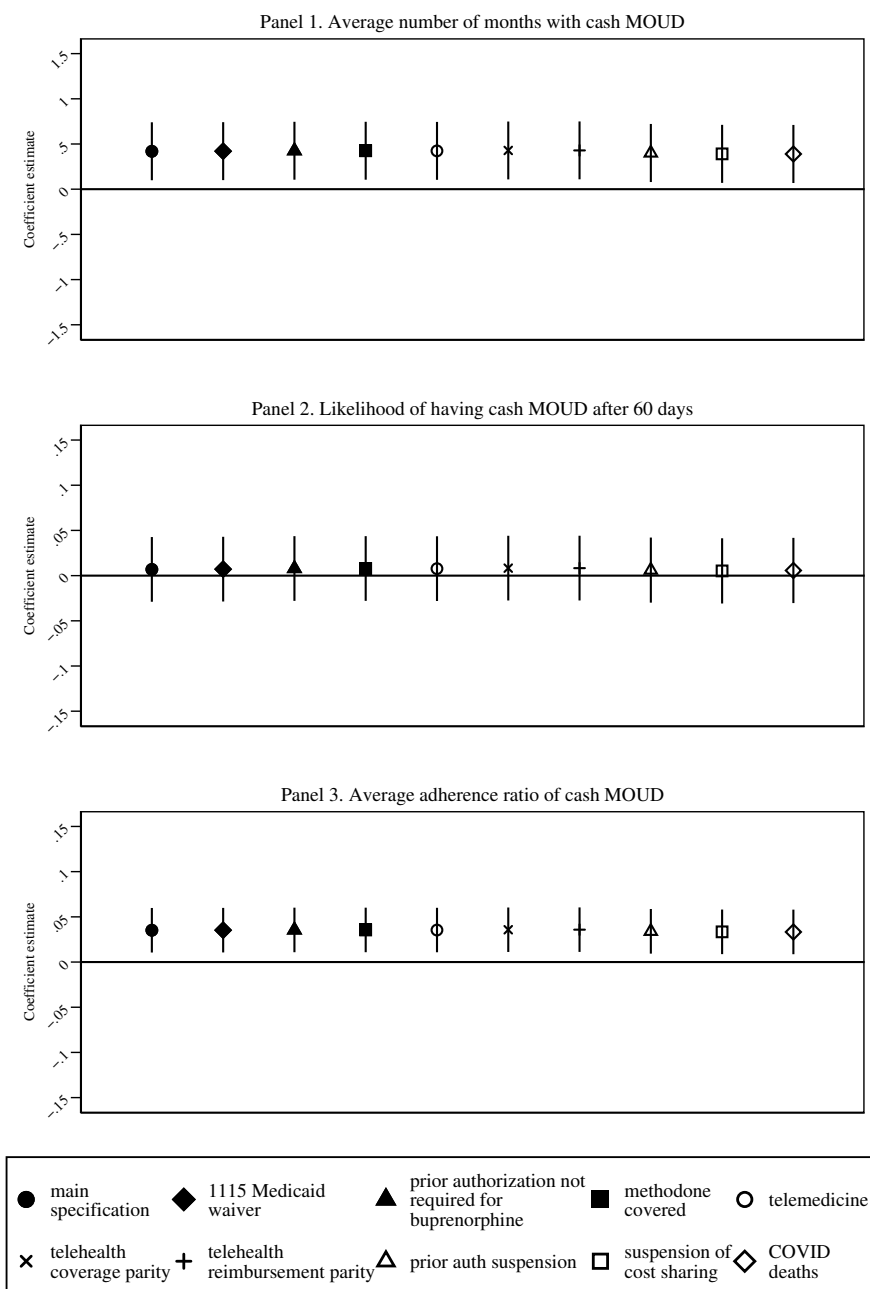
G Sensitivity of Coverage Effects to Other Contemporaneous Events and MOUD Policy Changes

Figure G1: Sensitivity check of adding extra covariates on commercial-financed MOUD outcomes



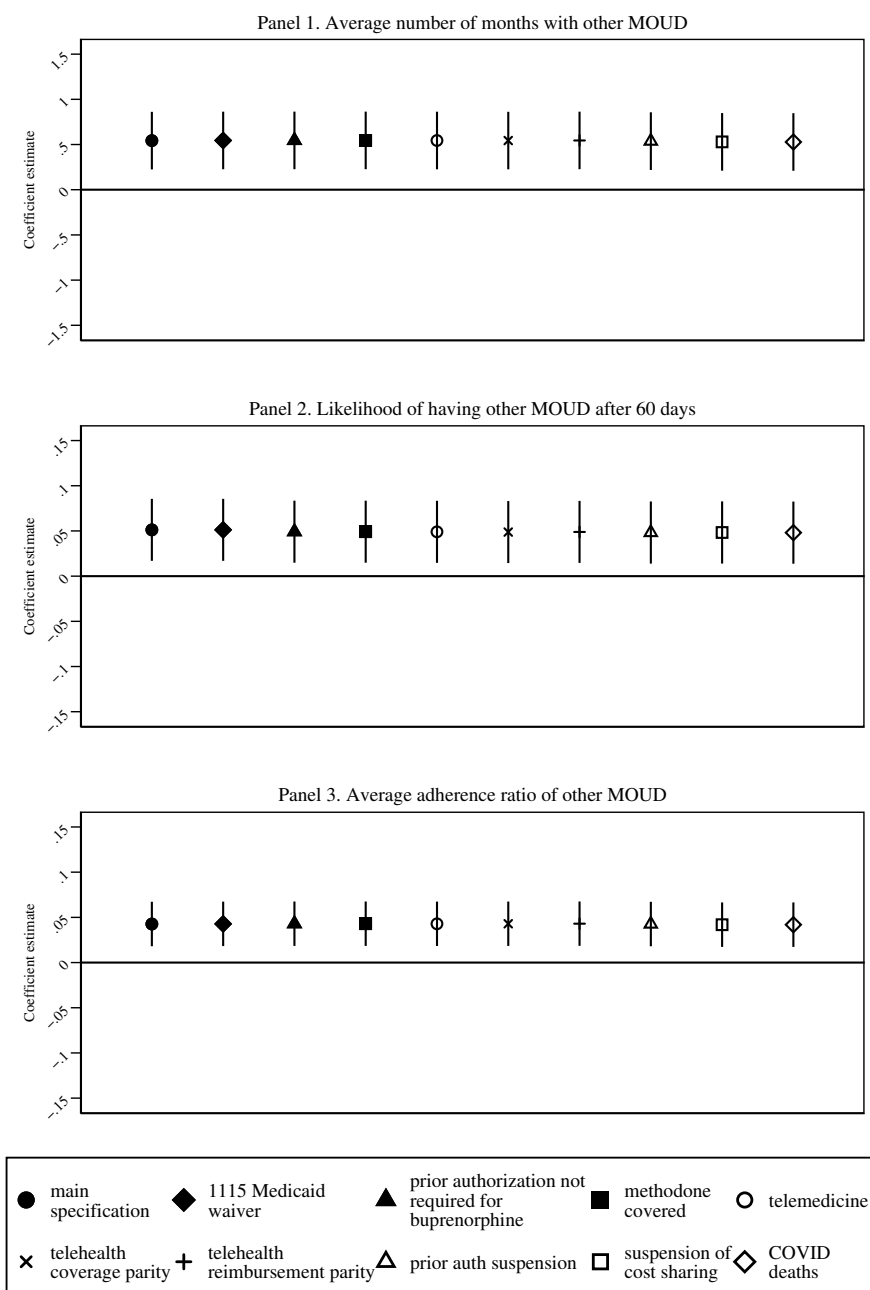
Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports estimates from a difference-in-differences specification comparing commercially-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation during the first postpartum year among parents with commercially-financed births (control group). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion and PSL mandates. Outcomes include: (1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

Figure G2: Sensitivity check of adding extra covariates on cash-financed MOUD outcomes



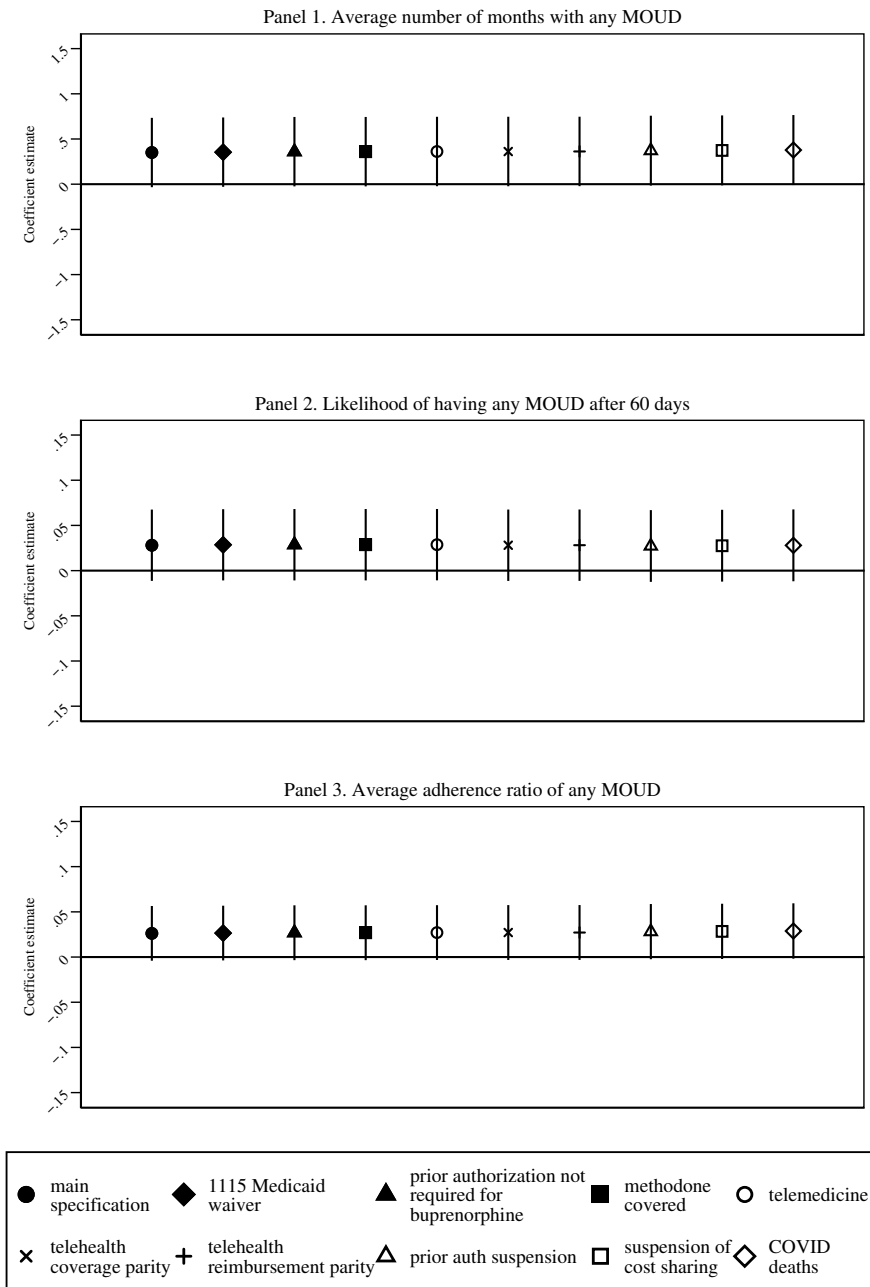
Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports estimates from a difference-in-differences specification comparing cash-covered MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercial-paid MOUD continuation among parents with commercially-financed births (control group). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion and PSL mandates. Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020-2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

Figure G3: Sensitivity check of adding extra covariates on other payer-financed MOUD outcomes



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure reports estimates from a difference-in-differences specification comparing overall MOUD continuation during the first postpartum year among parents with Medicaid-financed births (treatment group) to stable, commercially-covered MOUD continuation among parents with commercially-financed births (control group). Models estimate heterogeneity in policy effects by state policy environment, comparing states with versus without ACA Medicaid expansion and PSL mandates. Outcomes include: (1) average number of months with Medicaid-financed MOUD, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio. The sample includes parents with births from January 2019–December 2021, spanning pre- (2019 births) and post- (2020–2021 births) policy periods. All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.

Figure G4: Sensitivity check of adding extra covariates on any MOUD outcomes



Notes: Authors' calculations using IQVIA all-payer claims data (Dx and LRx). The figure presents estimates from the difference-in-differences specification, illustrating changes in postpartum MOUD continuation outcomes—(1) average number of MOUD months, (2) likelihood of continuation beyond 60 days, and (3) annual adherence ratio—during the first postpartum year for parents with Medicaid-financed births relative to parents with commercially financed births, after sequentially controlling for concurrent MOUD access policies and state-level pandemic exposure. For the treatment group, comprising of parents with Medicaid-financed births, starting in January 2020 postpartum Medicaid eligibility expanded from 60 days to 12 months under the COVID-19 Public Health Emergency. Parents with commercially financed births serve as the control group whose postpartum coverage was unaffected by the policy. The study sample includes births from January 2019 through December 2021, spanning the policy transition from 60 days of postpartum Medicaid coverage (2019) to 12 months of coverage for parents with Medicaid-financed births during the COVID-19 Public Health Emergency (2020–2021). All models include state and year-month of delivery fixed effects and adjust for individuals' demographic characteristics and comorbidities. Point estimates are shown with heteroskedasticity-robust 95% confidence intervals.