TULANE UNIVERSITY
SCHOOL of PUBLIC HEALTH
& TROPICAL MEDICINE

Department of Health Policy and Management

Evaluation of the State of Louisiana Substance Use Disorder Section 1115 Demonstration

Interim Report

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Mark L. Diana, PhD
Kevin Callison, PhD
Janna Wisniewski, PhD
Charles Stoecker, PhD

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Executive Summary

Louisiana, like the rest of the United States, is experiencing an opioid use disorder (OUD) epidemic, resulting in high rates of drug overdose deaths. In response the Louisiana Department of Health (LDH) applied for and received a Section 1115(a) Demonstration in 2017 to allow for the continuation of treatment for OUD/SUD in institutions for mental diseases (IMDs) regardless of the length of stay. In addition, the waiver included several other proposed interventions aimed at improving outcomes for those with an OUD/SUD in areas such as access to critical levels of care for OUD/SUD, the use of evidence-based SUD patient placement criteria, access to medication-assisted treatment (MAT), and care coordination and transition between levels of OUD/SUD care.

The Centers for Medicare and Medicaid Services (CMS) requires an external evaluation of the Healthy Louisiana Substance Use Disorder 1115 Demonstration, and the Tulane University Department of Health Policy and Management received the contract to conduct the Evaluation.

Evaluation Questions and Hypotheses

Evaluation Question 1: Did access to evidence-based OUD/SUD care increase as a result of the demonstration?
Demonstration Goal 1.1: Increase access to evidence-based OUD/SUD care. *Evaluation Hypothesis: The demonstration will increase the share of beneficiaries who are treated for OUD/SUD in ways that are consistent with evidence-based care.*
Demonstration Goal 1.2: Increase access to and utilization of medication-assisted treatment (MAT) for OUD/Alcohol Use Disorder (AUD). *Evaluation Hypothesis: The demonstration will increase the use of MAT.*
Demonstration Goal 1.3: Ensure sufficient provider capacity at each level of care for OUD/SUD. *Evaluation Hypothesis: The demonstration will improve provider capacity.*
Evaluation Question 2: Did use of medically-inappropriate care including emergency department and hospital care for OUD/SUD decline as a result of the demonstration?
Demonstration Goal 2.1: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment. *Evaluation Hypothesis: The demonstration will reduce visits to the emergency department and the use of hospital services for the treatment of OUD/SUD.*
Demonstration Goal 2.2: Reduce readmission rates for OUD/SUD treatment. *Evaluation Hypothesis: The demonstration will reduce hospital readmission rates for OUD/SUD.*
Demonstration Goal 2.3: Increase use of evidence-based OUD/SUD patient placement criteria. *Evaluation Hypothesis: The demonstration will increase the use of evidence-based OUD/SUD patient placement criteria.*
Evaluation Question 3: Did care-coordination improve as a result of the demonstration?
Demonstration Goal 3.1: Increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD. *Evaluation Hypothesis: The demonstration will increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD.*

Demonstration Goal 3.2: Increase adherence to and retention in treatment. *Evaluation Hypothesis: The demonstration will increase adherence to and retention in treatment.*
Evaluation Question 4: Did health outcomes for Medicaid beneficiaries with OUD/SUD improve as a result of the demonstration?
Demonstration Goal 4.1: Reduce instances of drug overdose and overdose deaths. *Evaluation Hypothesis: The demonstration will decrease the rate of drug overdose and the number of drug deaths.*

Evaluation Methods

The number of questions, goals, and hypotheses require a complex methodological approach. The specifics of our methods vary. Details are provided for each specific goal and hypotheses in the body of the report. In general, where we were able, we conducted and Interrupted Time Series (ITS) analysis. Where we are unable to do so we provide descriptive analyses. We also include qualitative results for some sections.

Our primary data source is Medicaid claims data. Additional data sources include the Buprenorphine Treatment Practitioner Locator and DATA-Certified Physicians Totals collected by SAMHSA and the National Vital Statistics System Mortality Multiple Cause-of-Death Restricted Use Files.

Results

Goal 1.1: Increase access to evidence-based OUD/SUD care.

The number of beneficiaries receiving outpatient and withdrawal management services has not changed, but the number receiving intensive outpatient and partial hospitalization was increasing prior to the demonstration and is still increasing but at a slower rate. The number of beneficiaries receiving residential and inpatient services increased sharply at the start of the waiver but then shows a steady decrease (see Figure 2). There is also a sharp decline in the beginning of 2020, which could be caused by the COVID-19 pandemic. Unfortunately, we do not have the data to verify if this is the cause.

Goal 1.2: Increase access to and utilization of medication-assisted treatment (MAT) for OUD/Alcohol Use Disorder (AUD).

The number of beneficiaries with a claim for MAT has been increasing steadily both before and after the intervention, but the rate of increase is greater after the intervention than before. However, we also examined the share of beneficiaries with a claim for MAT and found that it is increasing at a faster rate after the intervention (see Figure 3). The number of providers who were enrolled in Medicaid and qualified to deliver SUD services has been steadily increasing at the same rate before and after. Overall, we conclude the demonstration is increasing the use of MAT.

Goal 1.3: Ensure sufficient provider capacity at each level of care for OUD/SUD.

The number of providers has been slowly increasing before and after implementation and the ITS analysis indicates that rate of increase has slowed slightly post implementation (slope change -0.393, $p < 0.05$). We conclude that the demonstration is not yet having a positive impact on provider capacity.

Goal 2.1: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment.

The ITS analysis shows no change in the number of ED visits per 1,000 beneficiaries. The number of inpatient stays was increasing prior to the intervention and is no longer increasing after the intervention (slope change -0.033, $p < 0.01$) and appears to have leveled off (post-period slope -0.003). These results provide mixed evidence that the demonstration is reducing medically inappropriate care.

Goal 2.2: Reduce readmission rates for OUD/SUD treatment.

ITS analysis indicates that readmissions rates have been slightly increasing before the intervention and that there has been no change post intervention. We conclude that there has been no effect of the demonstration on all-cause readmission rates.

Goal 3.1: Increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD.

Quantitatively, we measured this by the percentage of ED visits for beneficiaries aged 18 and older with a principal diagnosis of AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 7 and within 30 days of the ED visit (Monitoring metric #17). The ITS analysis showed no change in the initiation of follow-up after discharge. Our qualitative analysis of care coordination has not indicated any differences in care coordination among in-patient facilities. We conclude that the demonstration has not yet had an impact on the rates of follow-up after discharge from the ED or inpatient settings.

Goal 3.2: Increase adherence to and retention in treatment.

Goal 3.2 is more complex than most of the other goals. It consists of two measures—one for initiation and one for engagement—for four different cohorts:

1. Alcohol abuse or dependence
2. Opioid abuse or dependence
3. Other drug abuse or dependence
4. Total AOD abuse or dependence

Overall results indicate there has been no increase in adherence to or retention in treatment across all four cohorts.

Goal 4.1: Reduce instances of drug overdose and overdose deaths.

Both descriptive and ITS analysis indicate there has been no change in the number of drug overdoses.

Interpretations, and Policy Implications and Interactions with Other State Initiatives

Overall, we conclude that the demonstration is having a small but positive impact on the treatment of beneficiaries in ways consistent with evidence-based care. The demonstration has clearly increased the access to and utilization of MAT in Louisiana. These results are substantial and consistent across the demonstration whether we look at the number of Medicaid providers and beneficiaries or the share of beneficiaries with an MAT claim.

Our analysis of provider capacity suggests that while there has been a slow steady increase before and after the start of the demonstration, there has not been a change in the rate of increase before and after the demonstration began. This suggest that the demonstration has yet to impact provider capacity.

Our results are mixed on the goal of reducing use of medically inappropriate care and reliance on ED and inpatient services in that we found that inpatient stays were no longer increasing as they were prior to the demonstration, but that there has been no change in ED visits. What we can say is that the number of ED visits and inpatient stays are not increasing. We consider this a positive result, even though we are not able to conclusively attribute this result to the demonstration alone.

Our findings suggest that there has not been an impact on all cause 30-day readmission rates for SUD treatment. We conducted both quantitative and qualitative analyses of care coordination and found no effect of the demonstration to this point. Our evaluation of adherence to and retention in treatment is more complex than many other goals of the demonstration and includes measures of treatment initiation and engagement for four different cohorts. To this point in the demonstration, we do not see any change in these measures.

To this point in the demonstration there has not been a reduction in overdoses in Louisiana. Drivers intended to impact overdoses such as MAT will require time to impact these numbers, and there are delays in reporting these numbers, both of which make it likely there will be a substantial lag between the intervention of the drivers and the ability to observe their impact.

We are cautious in interpreting these results in light of the Covid 19 pandemic.

Lessons Learned and Recommendations

The ability to continue OUD/SUD treatment in IMDs in Louisiana, through this Demonstration, appears to have resulted in small but important ways that are consistent with evidence-based care. Other states may see a similar result.

The Demonstration is effectively using education of abstinence-based residential providers on the benefits of MAT and encouraging physicians and other qualified providers to become certified dispensers to increase the use of MAT. These approaches should be easily transferred to other states and clearly have the potential to achieve similar results.

Introduction

As of 2016, Louisiana had the fifth highest per-capita rate of opioid prescriptions among U.S. states and was above the national average in drug overdose deaths (CDC, 2018). Furthermore, from 2015 to 2016, deaths in Louisiana from opioid overdose increased by 22% (KFF, 2018).

The National Survey of Substance Abuse Treatment Services (N-SSATS) is an annual survey of facilities providing substance use treatment. In Louisiana, 157 substance use treatment facilities were included in the 2016 N-SSATS, which reported a total of 9,628 clients in substance use treatment on March 31, 2016.
(https://www.samhsa.gov/data/sites/default/files/2016_NSSATS.pdf).

Treatment options for patient with SUD include one or more of the following service components:

- Individual and group counseling
- Inpatient and residential treatment
- Intensive outpatient treatment
- Partial hospital programs
- Case or care management
- Medication
- Recovery support services
- 12-Step fellowship
- Peer supports

Source: https://www.samhsa.gov/treatment/substance-use-disorders

Among the treatment options are Institutions for Mental Diseases (IMD). However, from its inception in 1965, Medicaid has excluded IMD coverage for those between the ages of 21 and 64 (Section 1905(a)(B) of the Social Security Act). The IMD exclusion was intended to focus treatment of mental diseases at non-residential settings and leave states with the responsibility for funding inpatient psychiatric services
(https://www.lac.org/assets/files/IMD_exclusion_fact_sheet.pdf).

Since 2012, Louisiana has been able to include coverage of IMD provided services under the Louisiana Behavioral Health Partnership (LBHP) and, later, Healthy Louisiana, since coverage was determined to be "cost-effective" and capitated by the Louisiana Department of Health (LDH). In 2016, the Centers for Medicare and Medicaid Services (CMS) revised regulations and changed capitation policies prohibiting coverage (Federal participation in coverage) for IMD stays beyond 15 days per month.

In response to the growing concern over rates of opioid use disorders (OUDs) and substance use disorders (SUDs) in general, the Louisiana Department of Health applied for a Section 1115(a) Demonstration in 2017 to allow for the continuation of treatment for OUD/SUD in institutions

for mental diseases (IMDs) regardless of the length of stay.[1,2] In addition, the waiver included several other proposed interventions aimed at improving outcomes for those with an OUD/SUD in areas such as access to critical levels of care for OUD/SUD, the use of evidence-based SUD patient placement criteria, access to medication-assisted treatment (MAT), and care coordination and transition between levels of OUD/SUD care. The Healthy Louisiana Substance Use Disorder 1115 Demonstration was approved by CMS on February 1, 2018 and will continue through December 31, 2022. The scope of the demonstration requires no change in Medicaid eligibility; therefore, the affected population will be Medicaid beneficiaries in the state of Louisiana who are treated for an OUD/SUD.

The purpose of the demonstration is to maintain critical access to OUD/SUD services and continue delivery system improvements to provide more coordinated and comprehensive treatment for Medicaid beneficiaries. The demonstration aims to achieve the following goals:

a. Increase access to evidence-based OUD/SUD care
b. Increase access to and utilization of medication-assisted treatment (MAT) for OUD/SUD
c. Ensure sufficient provider capacity at each level of care for OUD/SUD
d. Decrease use of medically inappropriate care and reduced reliance on emergency department and hospital services for OUD/SUD treatment
e. Reduce readmission rates for OUD/SUD treatment
f. Increase use of evidence-based OUD/SUD patient placement criteria
g. Increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD
h. Increase adherence to and retention in treatment
i. Reduce instances of drug overdose and overdose deaths

The demonstration implementation plan includes six separate milestones that address various areas of OUD/SUD treatment including access, placement, standards of care, and provider capacity. We develop hypotheses surrounding these milestones and their potential impact on the demonstration goals and describe our proposed methodology for testing these hypotheses below.

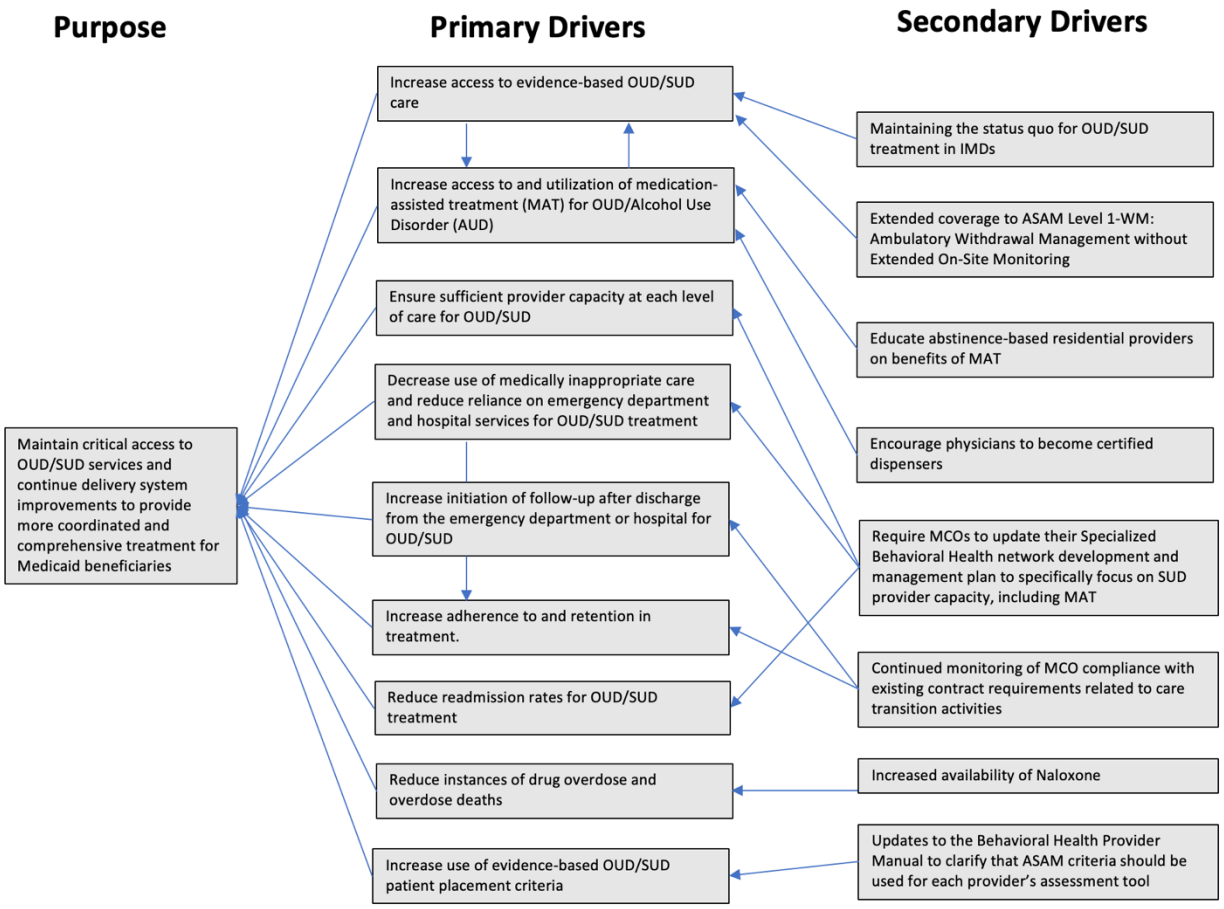
[1] Section 1905 42 of U.S.C. 1396d defines IMDs as "a hospital, nursing facility, or other institution of more than 16 beds, that is primarily engaged in providing diagnosis, treatment, or care of persons with mental diseases, including medical attention, nursing care, and related services."

[2] While IMDs have been excluded from federal financial participation since Medicaid's inception, several states have used an "in lieu of" policy to fund IMD care using federal dollars through capitated payments to managed care organizations (Musumeci, 2018). In May 2016, CMS implemented a policy to limit "in lieu of" payments to IMD stays to 15 days in a calendar month (Priest et al., 2017)

Evaluation Questions and Hypotheses

Driver Diagram and Model Assumptions

Figure 1: Driver diagram



Model Assumptions:

1. Medicaid beneficiaries cannot afford treatment.
2. Providers will read the Louisiana Medicaid Provider manual.
3. Abstinence-only providers will read or participate in education.
4. Cost is a major barrier to evidence-based treatment for providers.
5. Knowledge is a major barrier preventing providers from engaging in evidence-based treatment.
6. Providers will comply with the requirement.
7. MCOs' contract requirements related to linkages to care are appropriate.
8. There is a process in place by which tracking data for opioids and naloxone is acted upon.
9. Community-based services are effective.

Table 1: Evaluation questions, demonstration goals, and evaluation hypotheses.

Evaluation Question 1: Did access to evidence-based OUD/SUD care increase as a result of the demonstration?
Demonstration Goal 1.1: Increase access to evidence-based OUD/SUD care. *Evaluation Hypothesis: The demonstration will increase the share of beneficiaries who are treated for OUD/SUD in ways that are consistent with evidence-based care.*
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Evaluation Question 2: Did use of medically-inappropriate care including emergency department and hospital care for OUD/SUD decline as a result of the demonstration?
Demonstration Goal 2.1: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment. *Evaluation Hypothesis: The demonstration will reduce visits to the emergency department and the use of hospital services for the treatment of OUD/SUD.*
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Methods

Evaluation Methodology

We use three methods to evaluate the hypotheses listed in Table 1. When it is possible to designate a control group, our preferred methodology is a differences-in-differences (DD) design. Use of the DD methodology will not be possible when we are unable to identify an appropriate control group who would be plausibly unaffected by an intervention. In this case, we rely on one of two alternative research designs: interrupted time series analysis or a pre/post analysis. The interrupted-time series (ITS) method examines changes over time in an outcome for a treatment group. The evaluation period spans the periods before and after the intervention to capture changes that correspond to the timing of the intervention. An ITS analysis does not require a control group, but instead compares changes within the treatment group over time.

Finally, for a small number of outcomes, both the DD and ITS are not feasible. This occurs when we are unable to identify an appropriate control group and when time-series data on a particular outcome is limited. For example, since ASAM Level 1-WM treatment was not a covered level of care prior to the demonstration, we cannot model the trend in this treatment over time for Medicaid beneficiaries. In these cases, we use a simple pre/post analysis to statistically compare changes in outcomes from the pre-intervention period to the post-intervention period.

Target and Comparison Populations

For most analyses, the target population consists of the Medicaid population with an OUD/SUD. The inclusion criterion for this group is Medicaid beneficiaries enrolled in a specific reporting period (e.g., month or year) with a qualifying claim that uses an OUD/SUD diagnosis code as the primary diagnosis.

When examining changes in prescriber certified dispensers, the target population includes all waivered prescribers in the state of Louisiana listed in the SAMHSA Buprenorphine Treatment Practitioner Locator and the DATA-Certified Physician Totals. In some specifications, we compare changes in the number of waivered prescribers in Louisiana to changes in other states. In those instances, our population will expand to include prescribers from non-SUD demonstration states. In addition, we use NPI provider records from the Medicaid claims data to measure active physician treatment for SUD services.

Finally, when examining overdose deaths, our target population will be comprised of those whose cause of death is listed as an “accidental poisoning by and exposure to drugs and other biological substances” in both Louisiana and other control states.

Evaluation Period

The evaluation period for analyses using the Medicaid claims data will begin in January 2014 and will be ongoing through the projected end of the demonstration in December 2022. Though the demonstration was approved in February 2018, we will incorporate data from the 2014 through 2017 in order to establish trends and use-rates in the pre-demonstration period. We will

then measure changes in these outcomes from the pre-demonstration to post-demonstration periods.

Data Sources

The primary data source for our analysis is the Louisiana Medicaid claims database. Additional data sources include the Buprenorphine Treatment Practitioner Locator and DATA-Certified Physicians Totals collected by SAMHSA and the National Vital Statistics System Mortality Multiple Cause-of-Death Restricted Use Files. The Buprenorphine Treatment Practitioner Locator and DATA-Certified Physicians data are freely available through SAMHSA's website. We will apply for access to restricted-use versions of the Mortality Multiple Cause-of-Death files, which is necessary in order to obtain geographic identifiers.

SAMHSA maintains two sources of data on physician certification for treating OUD/SUD through MAT: The Buprenorphine Treatment Practitioner Locator and DATA-Certified Physicians database. Data elements on DATA-Certified Physicians is collected from online submission forms that physicians must complete in order to attain waiver certification. The Buprenorphine Treatment Practitioner Locator data is taken from practitioner profiles maintained by SAMHSA.

Analytic Methods

Quantitative Methods

Our preferred methodology for evaluating the hypotheses listed above is DD. The treatment group is defined by exposure to an intervention, while the control group should ideally be similar to the treatment group but remain unexposed. Under standard assumptions for the DD methodology, changes in outcomes for the treatment group relative to the control group can be interpreted as causal impacts of the intervention.

The DD model can be formally represented as follows:

$$Outcome_{ist} = \beta_0 + \beta_1 Treat_{is} + \beta_2 Post_t + \beta_3 Treat_{is} \times Post_t + \beta_4 X_{ist} + \beta_5 Z_{st} + \delta_s + \tau_t + \varepsilon_{ist}$$

Where $Outcome_{ist}$ represents the outcome of interest to be estimated for individual i living in state or region s at time t. $Treat$ is an indicator for assignment to the treatment group and $Post$ an indicator for the post-intervention period. The interaction term, $Treat_{is} \times Post_t$, is the coefficient of interest and represents the effect of the intervention on the treatment group relative to the control group. Finally, X is a vector of individual characteristics such as age and sex, Z is a vector of state or region characteristics such as unemployment rates, δ and τ are state/region and time fixed effects, and ε is an error term that captures unobserved factors associated with the outcome of interest. Most of the DD models will be estimated using ordinary least squares (OLS), however we may employ nonlinear estimation techniques to account for relatively rare outcomes.

For cases where no appropriate control group can be defined, we will instead rely on either an interrupted time series analysis or a simple pre/post analysis. The interrupted time series model can be described as follows:

$$Outcome_{it} = \beta_0 + \beta_1 Time_t + \beta_2 Implement_t + \beta_3 Time_t \times Implement_t + \beta_4 X_{ist} + \beta_5 Z_{st} + \delta_s + \varepsilon_{ist}$$

Where $Time$ is a continuous measure of time denoted in either year, year-quarter, or month depending on sample sizes. $Implement$ is an indicator for the implementation of a demonstration milestone meant to impact the outcome in question and measures any break in trend associated with the intervention. The interaction term, $Time_t \times Implement_t$ captures any change to the slope of the trend that occurred after the intervention. All other variables remain as previously defined.

Finally, in a small number of cases, neither a DD or ITS will be feasible due to a lack of control group and time-series data. In these cases, we will use a simple pre/post comparison of mean changes and test for statistical significance between the pre- and post-period using t-tests or chi-square tests depending on the outcome to be analyzed.

Methodology for analyzing costs of the Louisiana SUD waiver to the Medicaid program

Identify Medicaid beneficiaries with a SUD. Using files obtained from Louisiana Medicaid data warehouse, including inpatient, outpatient, pharmacy, and long-term care claims, we identify beneficiaries with a substance use diagnosis or treatment code during the pre- and post-demonstration periods. We link beneficiaries with a SUD diagnosis or treatment during the specified time periods to Medicaid eligibility data and demographic characteristics, to identify the months a beneficiary was enrolled in Medicaid. The analysis includes the first month where a SUD diagnosis or treatment claim was observed for the beneficiary and for up to eleven additional months that did not include claims for SUD diagnosis or treatment if the beneficiary remained enrolled in Medicaid. Repeated SUD diagnoses or treatment claims extend the observation period included in the analysis.

Organize the data to create a file with an observation for each month a beneficiary is Medicaid-eligible, on or after their first observed SUD-related claim during the analysis period. For each month that an individual is enrolled, the data file contains an observation with their Medicaid costs in that month.

Develop shadow cost prices. As Louisiana Medicaid patients are in managed care, we use the published fee-for-service schedule for Louisiana's Medicaid program. This list maps Current Procedural Terminology (CPT) codes and provider types onto dollar costs. Additionally, there are Healthcare Common Procedure Coding System (HCPCS) codes that define daily charges for SUD IMD stays and these rates are specific to SUD patients. Per guidance from CMS, we exclude room and board from these shadow prices.

Waiver administrative costs. The costs for administering Louisiana's SUD 1115 waiver program are entirely staffing costs. There are 10 staff members involved in administering the waiver program. We ask each staff member to estimate the percentage of their effort spent on administering the SUD waiver, percentage of time spent supporting the waiver evaluation efforts, and percentage of time spent on other duties. This retrospective reporting is performed monthly. We multiply the percentage efforts spent directly on administering the waiver by salaries to obtain administrative costs for the waiver program.

Calculate and trend average monthly spending. From the individual month-level data, we calculate average costs, across the categories presented in Table 2, separated into months before the demonstration and months after. These means are plotted to show trends visually and to verify that month-to-month variation is within expectations and does not indicate an underlying data error. Depending on variance in costs we may collapse data to the quarterly level to smooth out monthly variation in costs.

Table 2: Types of costs and data sources

Level of analysis	Type of costs	Data source
Total costs	Total costs	Louisiana Medicaid Claims Data, IMD costs, administrative costs
	Total federal costs	Total Medicaid costs * federal medical assistance percentage [FMAP] for the state
SUD cost drivers*	SUD-IMD	IMD costs reported by Louisiana Medicaid Claims Data
	SUD-other	Louisiana Medicaid Claims Data
	Non-SUD	Louisiana Medicaid Claims Data
Type or source of care cost drivers*	Outpatient costs – non ED	Louisiana Medicaid Claims Data
	Outpatient costs – ED	
	Inpatient costs	
	Pharmacy costs	
	Long-term care costs	

Our model for identifying the impact of the SUD 1115 waiver program on costs is an interrupted time-series design without a comparison group. This is necessary as there is no geographic or eligibility variation in the Louisiana Medicaid population in who is eligible for these services. For our interrupted time series regression analysis of costs, we include an indicator equal to 1 for months on or after the start date of the demonstration and equal to 0 for the pre-demonstration period months. Our regression model also includes covariates to control for age, race, gender, and dual eligibility status. We model costs in a two-part model where the first part is a logit model where the outcome is whether there are any costs in the person-month and in the second part the outcome is log costs as costs are typically not normally distributed.

For each outcome in Table 2 we will run the following model:

$$\text{Costs} = \beta 0 + \beta 1 * \text{TIME} + \beta 2 * \text{POST} + \beta 3 * (\text{TIME} * \text{POST}) + Bi * \text{CONTROLS} + \varepsilon$$

Where:

TIME is a count variable that starts with the first quarter pre-demonstration period data and ends with the last quarter of post-demonstration period data.

POST is the indicator variable that equals 1 if the month occurred on or after demonstration start date.

CONTROLS are covariates, such as age, gender, race, dual Medicare-Medicaid enrollment, and month.

We report marginal effects and standard errors to assess statistically significant changes in costs. Changes in average costs after the intervention are captured by $\beta 2$. If this is positive and statistically significant it indicates costs are higher in the post-demonstration period.

Changes in trends in costs are captured by $\beta 3$. If this is positive and statistically significant it indicates cost trends have increased in the post period. Together these two coefficients capture potential program impacts on cost. We also report regression adjusted means (either monthly or quarterly), as described previously, to make regression results more easily interpretable for lay audiences.

Results

Demonstration Goal 1.1

Demonstration Goal 1.1 is to increase access to evidence-based OUD/SUD care. The primary driver of this goal is to increase access to evidence-based OUD/SUD care. We used two measures to evaluate this driver:

- Medicaid Beneficiaries Treated in an IMD for SUD (Monitoring metric #5)
- Average Length of Stay in IMDs (Monitoring metric #36)

These measures have remained relatively stable over the demonstration period based on descriptive analysis. We do not have pre-period data and therefore cannot conduct an ITS analysis.

The secondary drivers are:

- Maintaining the status quo for OUD/SUD treatment in IMDs
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring

We used these measures to evaluate the secondary drivers:

- Early intervention (ASAM 0.5; Monitoring metric #7)
- Outpatient Services (ASAM 1; Monitoring metric #8)
- Intensive Outpatient and Partial Hospitalization (ASAM 2; Monitoring metric #9)
- Residential and Inpatient Services (ASAM 3; Monitoring metric #10)
- Withdrawal Management (Monitoring metric #11)

The early intervention measure is not interpretable because of small numbers (there are between 0 – 5 beneficiaries using early services in the period).

ITS results for the number of beneficiaries using outpatient services indicate that there has been no change. An ITS analysis of the share of beneficiaries receiving outpatient services suggests that the share was decreasing prior to the demonstration and that the rate is still decreasing but at a lower rate (slope change 0.34, $p < 0.01$). The number of beneficiaries receiving intensive outpatient and partial hospitalization was increasing prior to the demonstration and is still increasing but at a slower rate (slope change -23.13, $p < 0.01$). There was a large increase in the number of beneficiaries receiving residential and inpatient services at the beginning if the waiver period (level change 1245.14, $p < 0.01$). This number is decreasing on average over the course of the demonstration, but visual inspection suggests this is due to a substantial drop in the first part of 2020. Lastly, the number of beneficiaries receiving withdrawal management services has been increasing at the same rate before and after the start of the demonstration, but there was a small increase in level at the start of the intervention (level change 84.01, $p < 0.05$).

Demonstration Goal 1.2

Demonstration goal 1.2 is to increase access to and utilization of medication-assisted treatment (MAT) for OUD/Alcohol Use Disorder (AUD). The primary driver is measured by the number of beneficiaries who have a claim for MAT for SUD during the measurement period (Monitoring metric #12). The secondary drivers are to educate abstinence-based residential providers on benefits of MAT and to encourage physicians to become certified dispensers. We evaluated the secondary drivers by measuring the number of Medicaid providers who were qualified to deliver SUD services during the measurement period and who meet the standards to provide buprenorphine or methadone as part of MAT (Monitoring metric #14).

The ITS analysis of the number of beneficiaries who have a claim for MAT for SUD during the measurement period indicates it is increasing slightly more than before the intervention (slope change 53.71, $p < 0.10$). There also was a decrease in the number of beneficiaries receiving MAT at the beginning of the intervention (level change -1296.99, $p < 0.05$). The number of Medicaid providers who were qualified to deliver MAT services has been steadily increasing at the same rate before and after.

Demonstration Goal 1.3

Demonstration goal 1.3 is to ensure sufficient provider capacity at each level of care for OUD/SUD. The primary driver for goal 1.3 is the number of Medicaid providers who were qualified to deliver SUD services during the measurement period (Monitoring metric #13). The number of providers has been slowly increasing before and after implementation and the ITS analysis indicates that rate of increase has slowed slightly post implementation (slope change -0.393, $p < 0.05$).

Demonstration Goal 2.1

Demonstration goal 2.1 is to decrease the use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment. The primary driver for goal 2.1 is the number of OUD/SUD beneficiaries with an emergency department visit per 1,000 beneficiaries (Monitoring metric #23). The secondary driver is the number of inpatient stays for OUD/SUD per 1,000 Medicaid beneficiaries (Monitoring metric #24).

ITS analysis indicates that the number of ED visits has not changed, and that the number of impatient stays was increasing prior to the intervention (pre-period slope 0.031, $p < 0.01$) and that it is has decreased after the intervention (slope change -0.033, $p < 0.01$).

Demonstration Goal 2.2

Demonstration goal 2.2 is to reduce readmission rates for OUD/SUD treatment. We measured this by the rate of all-cause readmissions during the measurement period among beneficiaries with SUD (Monitoring metric #25). ITS analysis indicates that readmissions rates have been slightly increasing before the intervention and that there has been no change post intervention.

Demonstration Goal 3.1

Demonstration goal 3.1 is to increase initiation of follow-up after discharge from the emergency department for Alcohol and Other Drug Abuse or Dependence (AOD). We measured this by the percentage of ED visits for beneficiaries age 18 and older with a principal diagnosis of AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 7 and within 30 days of the ED visit (Monitoring metric #17). The ITS analysis showed no change in the initiation of follow-up after ED visit.

Demonstration Goal 3.1 Survey Methods

The care coordination survey is designed to be a rapid assessment of the ways in which the facility coordinated post-discharge services for inpatients. It covered the types of services coordinated, preauthorization, methods of referral, and patient information transfer.

The sampling frame from this survey was a list of 70 SUD treatment facilities obtained from the SAMHSA website. Facilities classified as inpatient providers that accepted Medicaid. A researcher attempted to reach each facility by telephone to invite them to respond to the survey.

2019 data collection

Of the 70 facilities listed, 22 reported that they provided outpatient care only. Additionally, two were duplicate listings and one reported to not accept Medicaid. Of the remaining 55 facilities, eight completed the survey. The 47 that did not either could not be reached, did not connect the researcher with an appropriate administrator who could respond, or refused.

The facilities that responded to the survey were located in New Orleans (3), Baton Rouge (2), North/Central Louisiana (2), and Southwest Louisiana (1).

2020 data collection

Of the 55 facilities identified as eligible in the first wave of data collection, 10 responded to the survey. The responding facilities were located in New Orleans (4), North/Central Louisiana (2), Southwest Louisiana (2), Baton Rouge (1), and Southeast Louisiana (1).

In an effort to increase the sample size in future waves, researchers will attempt to reach facilities by telephone as well as a mailed or emailed survey with an option to take the survey online.

Results

Between 2019 and 2020, there were no statistically significant differences in care coordination metrics among in-patient facilities. This may be due in part to the small sample size.

In 2019, nearly 13 percent of surveyed facilities did not obtain prior authorization for medications for any patients prior to discharge. In 2020, the percentage had increased to 20.0. However, the percentage of facilities that obtained prior authorization for all patients also increased from 25.0 percent in 2019 to 30.0 percent in 2020.

Table 3. Percentage of your inpatients needing prior authorization for medications who have it at the time of discharge (n=inpatient facilities)

	2019		**2020**	
Percentage	**n**	**%**	**n**	**%**
None	1	12.5	2	20.0
1-24%	0	0.0	0	0.0
25-49%	1	12.5	1	10.0
50-74%	0	0.0	0	0.0
75-99%	1	12.5	1	10.0
100%	2	25.0	3	30.0
Don't know	3	37.5	3	30.0
Total	**8**	**100.0**	**10**	**100.0**

All facilities surveyed indicated that at least some of their patients receive a referral or information about outpatient behavioral health services prior to discharge. The percentage who did so with all patients was relatively unchanged from 2019 to 2020.

Table 4. Percentage of inpatients who have information about or a referral to outpatient behavioral health services prior to discharge (n=inpatient facilities)

	2019		**2020**	
Percentage	**n**	**%**	**n**	**%**
None	0	0.0	0	0.0
1-24%	1	12.5	1	10.0
25-49%	1	12.5	1	10.0
50-74%	0	0.0	1	10.0
75-99%	1	12.5	1	10.0
100%	5	62.5	6	60.0
Don't know	0	0.0	0	0.0
Total	**8**	**100.0**	**10**	**100.0**

In some cases, patients cannot go home or do not have housing after discharge from an inpatient facility. In 2019, 62.5 percent of surveyed facilities indicated that they coordinate with other

organizations to secure housing prior to discharge for these individuals. In 2020, that percentage had risen slightly to 70.0 percent.

Table 5. Percentage of facilities that coordinate with other organizations when a patient cannot go home or has no housing after discharge (n=inpatient facilities)

	2019		2020	
Coordination	**n**	**%**	**n**	**%**
Yes	5	62.5	7	70.0
No	3	37.5	3	30.0
Total	**8**	**100.0**	**10**	**100.0**

In both 2019 and 2020, the majority of inpatient facilities referred or provided information to patients about other services at discharge, most frequently, medical and housing services. Information about social work and employment services were less frequently provided.

Table 6. Other types of health or social services to which facilities refer or provide information to patients (n=inpatient facilities)

	2019		2020	
Services	**n**	**%**	**n**	**%**
Medical	7	87.5	9	90.0
Housing	7	87.5	9	90.0
Dental	6	75.0	8	80.0
Social work/Case management	6	75.0	7	70.0
Employment	5	62.5	6	60.0
Total	**8**	**100.0**	**10**	**100.0**

Facilities were asked to list the organizations to which they refer patients after discharge. In 2019, half of facilities referred to only one organization (40.0 percent in 2020). The highest number of referral organizations was five.

Table 7. Number of organizations to which inpatient facilities refer patients after discharge. (n=inpatient facilities)

	2019		2020	
Organizations	**n**	**%**	**n**	**%**
None/Don't know	1	12.5	1	10.0
1	4	50.0	4	40.0
2	1	12.5	2	20.0
3	0	0.0	1	10.0
4	0	0.0	0	0.0
5	2	25.0	2	20.0
Total	**8**	**100.0**	**10**	**10.0**

Facilities were also asked to characterize the types of relationships they have with referral organizations. In 2019, nearly 44 percent of relationships were informal, and 44 percent were

with organizations under the same parent organization. This was similar in 2020, with 38 percent of relationships being informal and another 38 percent having the same parent organization. Less frequently, relationships were formal (i.e. having a contract in place).

Table 8. Type of relationship with referral organizations (n=organizations to which discharged patients are referred)

	2019		2020	
Relationship	**n**	**%**	**n**	**%**
Informal	7	43.8	8	38.1
Formal	2	12.5	5	23.8
Same parent	7	43.8	8	38.1
Total	**16**	**100.0**	**21**	**100.0**

The degree to which inpatient facilities facilitate referrals varies. In 2019, half of facilities simply gave verbal instructions to patients, and half actually scheduled the appointment for the patient. In 2020, nearly 62 percent of facilities reported scheduling appointments for patients. Other methods, employed by less than 10 percent of facilities, were giving a written referral to the patient and faxing a referral to the provided.

Table 9. Methods which patients are referred (n=organizations to which discharged patients are referred)

	2019		2020	
Referral method (see notes)	**n**	**%**	**n**	**%**
Verbal instruction to patient	8	50.0	8	38.1
Schedule appointment for patient	8	50.0	13	61.9
Written referral given to patient	1	6.3	1	4.8
Referral faxed to provider	1	6.3	1	4.8
Total	**16**	**100.0**	**21**	**100.0**

Notes: Respondents could indicate multiple methods

In 2019, 37.5 percent of facilities reported that they did proactively send patient information with referrals. This percentage decreased to 28.6 percent in 2020.

Table 10. Methods by which patient information is transmitted to the provider with the referral (n=organizations to which discharged patients are referred)

	2019		2020	
Transmission method	**n**	**%**	**n**	**%**
No information proactively sent	6	37.5	6	28.6
Same system	6	37.5	7	33.3
Sent with patient	3	18.8	3	14.3
Telephone	3	18.8	7	33.3
EMR/EHR	3	18.8	4	19.0
Fax	2	12.5	0	0.0
In person	0	0.0	1	4.8
Total	**16**	**100.0**	**21**	**100.0**

Notes: n=organizations to which discharged patients are referred.

Demonstration Goal 3.2

Demonstration goal 3.2 is to increase adherence to and retention in treatment. The measure used to evaluate this goal is the initiation and engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD). This is a complicated measure with numerous breakdowns.

We calculated the percentage of beneficiaries aged 18 and older with a new episode of alcohol or other drug (AOD) abuse or dependence who received the following:

- Initiation of AOD Treatment - percentage of beneficiaries who initiate treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth, or medication treatment within 14 days of the diagnosis.
- Engagement of AOD Treatment - percentage of beneficiaries who initiated treatment and who were engaged in ongoing AOD treatment within 34 days of the initiation visit.

The following diagnosis cohorts are reported for each rate:

1. Alcohol abuse or dependence
2. Opioid abuse or dependence
3. Other drug abuse or dependence
4. Total AOD abuse or dependence

ITS analysis indicates that both initiation (14 days) and engagement (34 days) of treatment for alcohol abuse or dependence has been increasing before and after the intervention, but the rate of increase has slowed slightly after the intervention (initiation slope change -0.240, $p < 0.01$; engagement slope change 0.094, $p < 0.05$).

ITS analysis indicates that both initiation and engagement for opioid abuse or dependence has been rising slowly before and after the intervention with no change post intervention.

ITS analysis of initiation and engagement for other drug abuse or dependence indicates they have been increasing slowly before and after the intervention, but the rate of increase has slowed slightly after the intervention (initiation slope change -0.164, $p < 0.01$; engagement slope change 0.120, $p < 0.05$).

We see a similar pattern with AOD initiation (slope change -0.155, $p < 0.01$) but with a flattening out in the post period.

Demonstration Goal 4.1

Demonstration Goal 4.1 is to reduce instances of drug overdose and overdose deaths.[3] We measured the number of drug overdoses among Medicaid beneficiaries. Drug overdose is defined using the measure proposed by the National Council of State and Territorial Epidemiologists and the National Center for Injury Prevention and Control and includes diagnosis codes in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded.

Both descriptive and ITS analysis of the number of drug overdoses indicates there has been no change pre- and post-waiver implementation.

[3] As of December 2021, we do not have a monthly breakdown of drug overdose deaths.

Required Evaluation Topic: Demonstrate patterns and trends in Medicaid costs associated with SUD 1115 demonstration

The evaluation plan includes an analysis of trends in Medicaid costs associated with the SUD 1115 waiver, including total costs, SUD cost drivers, and type or source of care cost drivers. For this report we provide total costs, Federal share of Louisiana SUD waiver, cost of Medicaid beneficiaries treated in an IMD, cost of Medicaid beneficiaries' ED visits, cost of MAT, and cost of ASAM care.

Results indicate that total costs dropped significantly after the first intervention in October of 2018, which was to encourage physicians to become certified dispensers. Total costs, the costs of beneficiaries treated in an IMD, and the cost of MAT are increasing after the second intervention, which was to educate abstinence-based residential providers on the benefits of MAT. The increase in total costs appears to be driven primarily by the increase in the cost of MAT.

Conclusions

The Healthy Louisiana Substance Use Disorder 1115 Demonstration was approved by CMS on February 1, 2018. The Evaluation Plan includes nine goals and associated hypotheses. We will discuss each in turn.

Demonstration Goal 1.1: Increase access to evidence-based OUD/SUD care.

Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

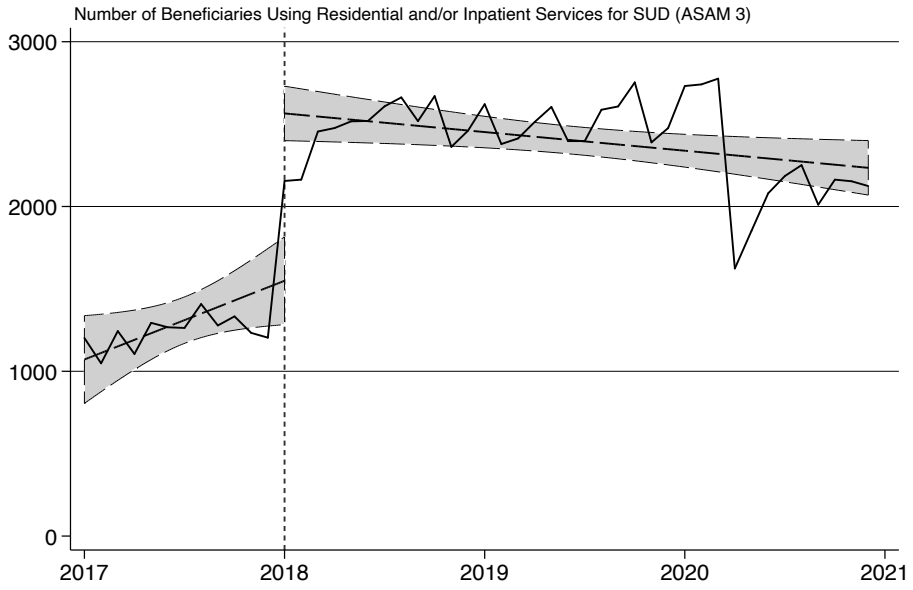
- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018, for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.

Evaluation Hypothesis: The demonstration will increase the share of beneficiaries who are treated for OUD/SUD in ways that are consistent with evidence-based care.

We do not have data for many of these measures prior to 2018 and therefore cannot conduct an ITS analysis. Descriptive statistics post implementation for these measures indicates either no change or slight decreases.

We can conduct an ITS analysis on several measures. These results are also generally small but, in some cases, significant. The number of beneficiaries receiving outpatient and withdrawal management services has not changed, but the number receiving intensive outpatient and partial hospitalization was increasing prior to the demonstration and is still increasing but at a slower rate. The number of beneficiaries receiving residential and inpatient services increased sharply at the start of the waiver but then shows a steady decrease (see Figure 2). There is also a sharp decline in the beginning of 2020, which could be caused by the COVID-19 pandemic. Unfortunately, we do not have the data to verify if this is the cause.

Figure 2: Number of Beneficiaries using residential and/or inpatient services for SUD (ASAM 3).



Notes: The total number of unduplicated beneficiaries with a service claim for residential and/or inpatient services for SUD during the measurement period.

Overall, we conclude that the demonstration is having a small but positive impact on the treatment of beneficiaries in ways consistent with evidence-based care.

Demonstration Goal 1.2: Increase access to and utilization of medication-assisted treatment (MAT) for OUD/Alcohol Use Disorder (AUD).

Primary Driver: Increase access to and utilization of medication-assisted treatment (MAT) for SUD
Secondary Drivers:

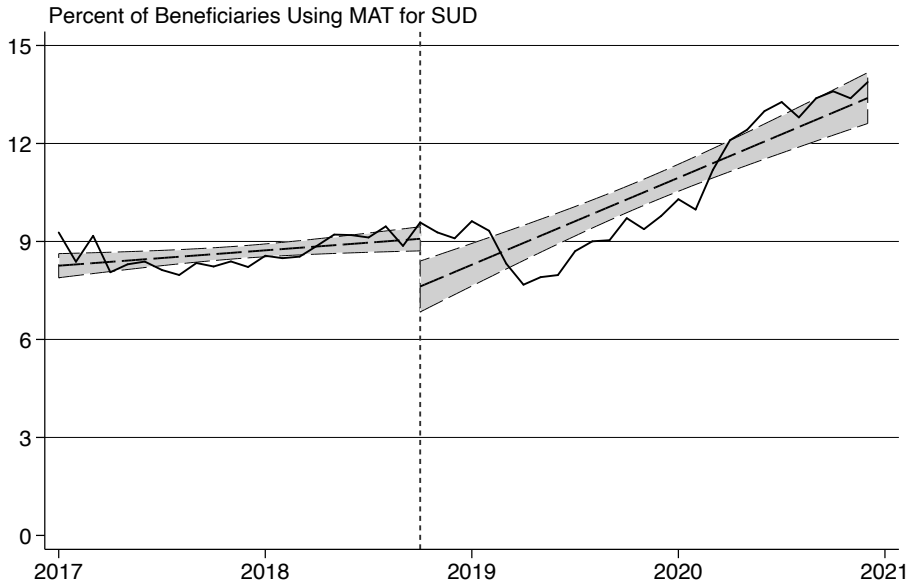
- Educate abstinence-based residential providers on benefits of MAT.
    - Status: Started 4/01/2019
    - Details: Increasing access to MAT or OUD is occurring with the CMS requirement for SUD residential providers to offer MAT onsite or facilitate access to MAT offsite when clinically indicated for patients in their care.
- Encourage physicians to become certified dispensers.
    - Status: Started 10/01/2018
    - Details: FDA approved AUD MAT medications (Disulfiram, Acamprosate and Naltrexone) do not require licensed prescribers to be certified, as are data-waivered to prescribe Buprenorphine. In Louisiana, MDs, APRNs, and PAs are qualified to become data waivered. Prescribers are being recruited through The LaSOR grant to participate in the "Hub and Spoke" model. The LASOR grant timeframe is 10/01/18 to 9/30/2020. LASOR started recruiting in April "officially" when the LSU Contract was completed. As of 9/13/19, 44 new prescribers were prescribing Suboxone. This recruitment will continue through 9/30/2020 with this grant.

Evaluation Hypothesis: The demonstration will increase the use of MAT.

To evaluate this hypothesis, we conducted an ITS analysis on the number of beneficiaries that have a claim for MAT and the number of providers enrolled in Medicaid qualified to deliver SUD services and that meet the standards to provide buprenorphine or methadone as part of MAT.

The number of beneficiaries with a claim for MAT has been increasing steadily both before and after the intervention, but the rate of increase is greater after the intervention than before. However, we also examined the share of beneficiaries with a claim for MAT and found that it is increasing at a faster rate after the intervention (see Figure 3). The number of providers who were enrolled in Medicaid and qualified to deliver SUD services has been steadily increasing at the same rate before and after. Overall, we conclude the demonstration is increasing the use of MAT.

Figure 3: Percent of beneficiaries using MAT for SUD



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for medication-assisted treatment for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

Demonstration Goal 1.3: Ensure sufficient provider capacity at each level of care for OUD/SUD.

Primary Driver: Ensure sufficient provider capacity at each level of care for SUD
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.

- Status: Started 1/30/2019
- Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.

Evaluation Hypothesis: The demonstration will improve provider capacity.

The number of providers has been slowly increasing before and after implementation and the ITS analysis indicates that rate of increase has slowed slightly post implementation (slope change -0.393, $p < 0.05$). We conclude that the demonstration is not yet having a positive impact on provider capacity.

Demonstration Goal 2.1: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment.

Primary Driver: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for SUD treatment.
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
  - Status: Started 1/30/2019
  - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.

Evaluation Hypothesis: The demonstration will reduce visits to the emergency department and the use of hospital services for the treatment of OUD/SUD.

The ITS analysis shows no change in the number of ED visits per 1,000 beneficiaries. The number of inpatient stays was increasing prior to the intervention and is no longer increasing after the intervention (slope change -0.033, $p < 0.01$) and appears to have leveled off (post-period slope -0.003). These results provide mixed evidence that the demonstration is reducing medically inappropriate care.

Demonstration Goal 2.2: Reduce readmission rates for OUD/SUD treatment.

Primary Driver: Reduce readmission rates for SUD treatment.
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.

- Status: Started 1/30/2019
- Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.

Evaluation Hypothesis: The demonstration will reduce hospital readmission rates for OUD/SUD.

ITS analysis indicates that readmissions rates have been slightly increasing before the intervention and that there has been no change post intervention. We conclude that there has been no effect of the demonstration on all-cause readmission rates.

Demonstration Goal 3.1: Increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD.

Primary Driver: Increase initiation of follow-up after discharge from the emergency department or hospital for SUD.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
  - Status: Started 6/30/2019
  - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.

Evaluation Hypothesis: The demonstration will increase initiation of follow-up after discharge from the emergency department or hospital for OUD/SUD.

Quantitatively, we measured this by the percentage of ED visits for beneficiaries aged 18 and older with a principal diagnosis of AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 7 and within 30 days of the ED visit (Monitoring metric #17). The ITS analysis showed no change in the initiation of follow-up after discharge. Our qualitative analysis of care coordination has not indicated any differences in care coordination among in-patient facilities. We conclude that the demonstration has not yet had an impact on the rates of follow-up after discharge from the ED or inpatient settings.

Demonstration Goal 3.2: Increase adherence to and retention in treatment.

Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.

Evaluation Hypothesis: The demonstration will increase adherence to and retention in treatment.

Goal 3.2 is more complex than most of the other goals. It consists of two measures—one for initiation and one for engagement—for four different cohorts:

1. Alcohol abuse or dependence
2. Opioid abuse or dependence
3. Other drug abuse or dependence
4. Total AOD abuse or dependence

Overall results indicate there has been no increase in adherence to or retention in treatment across all four cohorts.

Demonstration Goal 4.1: Reduce instances of drug overdose and overdose deaths.

Primary Driver: Reduce instances of drug overdose and overdose deaths.
Secondary Drivers:

- Increased availability of Naloxone.
    - Status: Ongoing
    - Details: The secretary of LDH signed a standing order for dispensing Naloxone without a prescription on 1/23/2017. In addition to the standing order, there are grants in place funding distribution of naloxone. These grants include MAT-PDOA, STR, and LASOR.

Evaluation Hypothesis: The demonstration will decrease the rate of drug overdose and the number of drug deaths

Both descriptive and ITS analysis indicate there has been no change in the number of drug overdoses.

Interpretations, and Policy Implications and Interactions with Other State Initiatives

Overall, we conclude that the demonstration is having a small but positive impact on the treatment of beneficiaries in ways consistent with evidence-based care. Metric 6 includes all telehealth services, so this measure combines both telehealth and non-telehealth services. Services provided by telehealth substantially increased in all areas in response to the Covid pandemic, so it is likely that this measure reflects that increase at least in part. Even so, the results here suggest a rapid adaptation to the conversion to telehealth services that may have been aided by the waiver.

The demonstration has clearly increased the access to and utilization of MAT in Louisiana. These results are substantial and consistent across the demonstration whether we look at the number of Medicaid providers and beneficiaries or the share of beneficiaries with an MAT claim. Further, these results are unlikely to have been substantially impacted by the Covid 19 pandemic. Perhaps not surprisingly, the increase in access to and utilization of MAT has also caused an increase in total costs of the demonstration.

Our analysis of provider capacity suggests that while there has been a slow steady increase before and after the start of the demonstration, there has not been a change in the rate of increase before and after the demonstration began. This suggest that the demonstration has yet to impact provider capacity. However, we have two caveats to this interpretation. First, the implementation of the intervention to require MCOs to update their development and management plans to focus on provider capacity began in January of 2019. This may not be sufficient time to observe significant impacts from this intervention, in part because we do not know how long it took the MCOs to update and implement these plans. Second, we have no way to evaluate the potential impact of Covid 19 on provider capacity.

Demonstration Goal 2.1 is to *"decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for OUD/SUD treatment."* The metrics we used to evaluate this goal were the number of ED visit for SUD (Metric #23) and the number of inpatient visits for SUD (Metric #24). In contrast to Goal 2.1, the evaluation hypothesis is that *"the demonstration will reduce visits to the emergency department and the use of hospital services for the treatment of OUD/SUD."* Our results are mixed in that we found that inpatient stays were no longer increasing as they were prior to the demonstration, but that there has been no change in ED visits. What we can say is that the number of ED visits and inpatient stays are not increasing. We consider this a positive result, even though we are not able to conclusively attribute this result to the demonstration alone. One other caveat to our findings here is that the metrics we used do not directly measure "medically inappropriate care." The underlying implication of the goal is that some portion of care provided in the ED and hospital is not medically necessary, and therefore we would expect to see reductions in these metrics. This issue is most problematic with inpatient stays because SUD beneficiaries are included if there is an SUD diagnosis in any position in the data (i.e., it could be the primary diagnosis, or it could be a secondary or later diagnosis that was not the cause of the specific admission).

Our findings suggest that there has not been an impact on all cause 30-day readmission rates for SUD treatment. This metric has substantial limitations, particularly in the identification of the denominator, that is the number of SUD hospital stays. This is the same limitation described in the preceding paragraph, that is that an inpatient stay with an SUD diagnosis at any position (primary or otherwise) is included. A more general concern with this metric is the "all-cause" nature of the measure. That is any beneficiary that was admitted to the hospital with an SUD diagnosis is included in the number of beneficiaries readmitted regardless of the reason for the readmission.

We conducted both quantitative and qualitative analyses of care coordination and found no effect of the demonstration to this point. The qualitative results provide some context for this finding, but sample sizes are small, and we continue to have difficulty recruiting participants for our qualitative data collection, so we are cautious in our interpretation of the qualitative findings. The quantitative analyses show there has not been a change in the initiation of follow-up after a beneficiary is discharged from the hospital. Once again, we are unable to disentangle any impact COBID-19 and the shift to telehealth may have on these results.

Our evaluation of adherence to and retention in treatment is more complex than many other goals of the demonstration and includes measures of treatment initiation and engagement for four different cohorts. To this point in the demonstration, we do not see any change in these measures. Once again, we must add the caveat that we cannot account for the possible impact of Covid 19 on these results. The Medicaid program saw substantial increases in beneficiaries over the course of the pandemic, and we have no way to account for the prior level of treatment for these beneficiaries and what impact they may have had on the results.

To this point in the demonstration there has not been a reduction in overdoses in Louisiana. Again, we are cautious in interpreting this result in light of the Covid 19 pandemic. Further, drivers intended to impact overdoses such as MAT will require time to impact these numbers, and there are delays in reporting these numbers, both of which make it likely there will be a substantial lag between the intervention of the drivers and the ability to observe their impact.

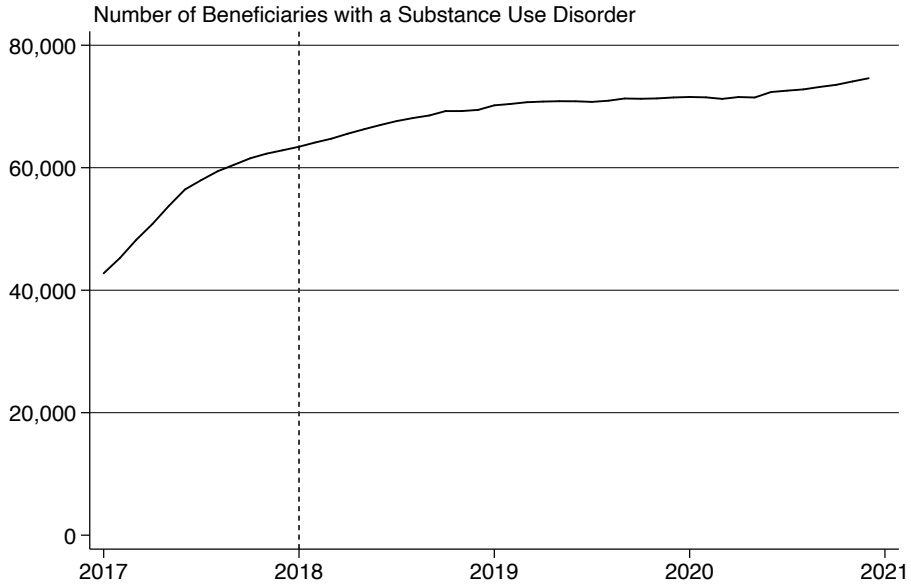
Lessons Learned and Recommendations

The ability to continue OUD/SUD treatment in IMDs in Louisiana, through this Demonstration, appears to have resulted in small but important ways that are consistent with evidence-based care. Other states may see a similar result.

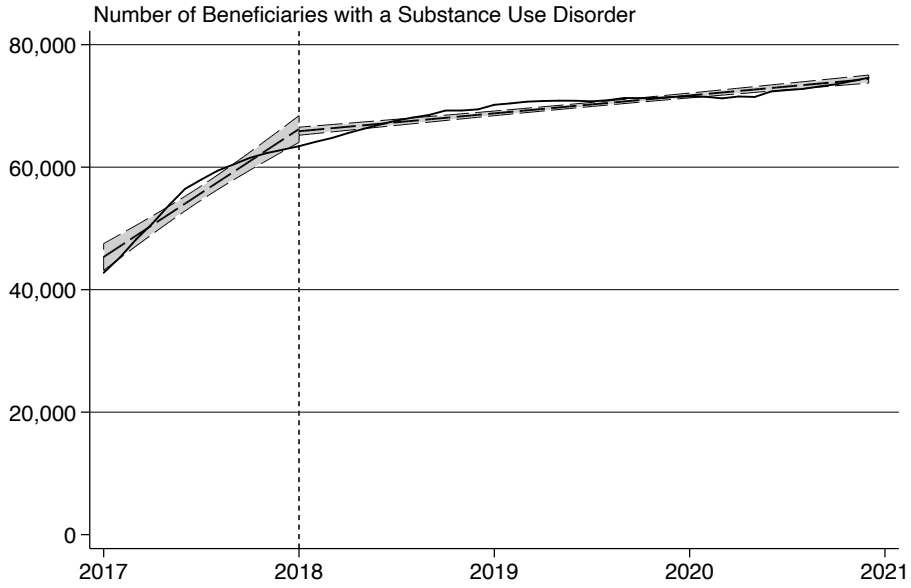
The Demonstration is effectively using education of abstinence-based residential providers on the benefits of MAT and encouraging physicians and other qualified providers to become certified dispensers to increase the use of MAT. These approaches should be easily transferred to other states and clearly have the potential to achieve similar results.

Attachment 1 (Detailed Results)

Evaluation Demonstration Goal 0.0
Monitoring Metric: #3, Count of Medicaid Beneficiaries with an SUD
Description: Medicaid Beneficiaries with SUD Diagnosis (monthly)
Primary Driver: N/A
Secondary Driver: N/A



Notes: Number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an OUD/SUD diagnosis code as the primary diagnosis. Intervention date was assigned to the first quarter of the demonstration period.



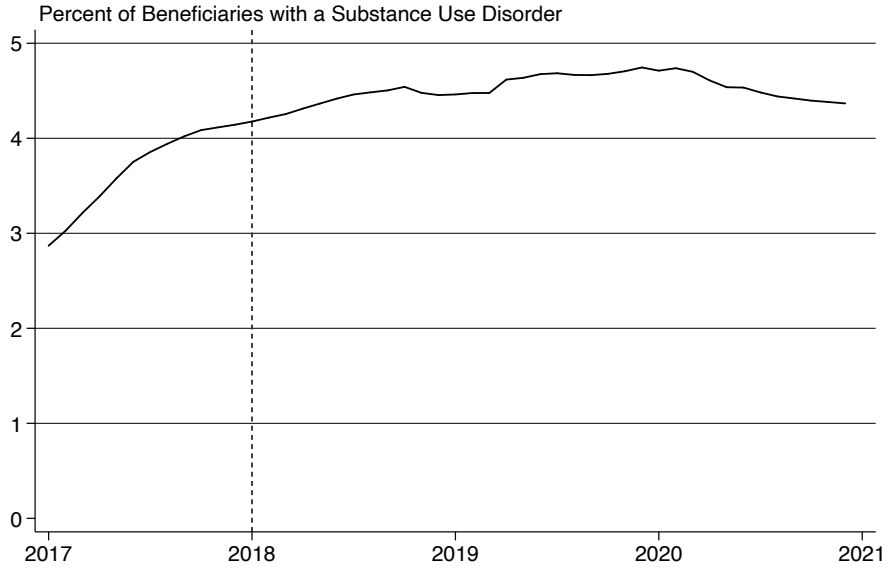
Notes: Number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an OUD/SUD diagnosis code as the primary diagnosis. Intervention date was assigned to the first quarter of the demonstration period.

ITS Estimates

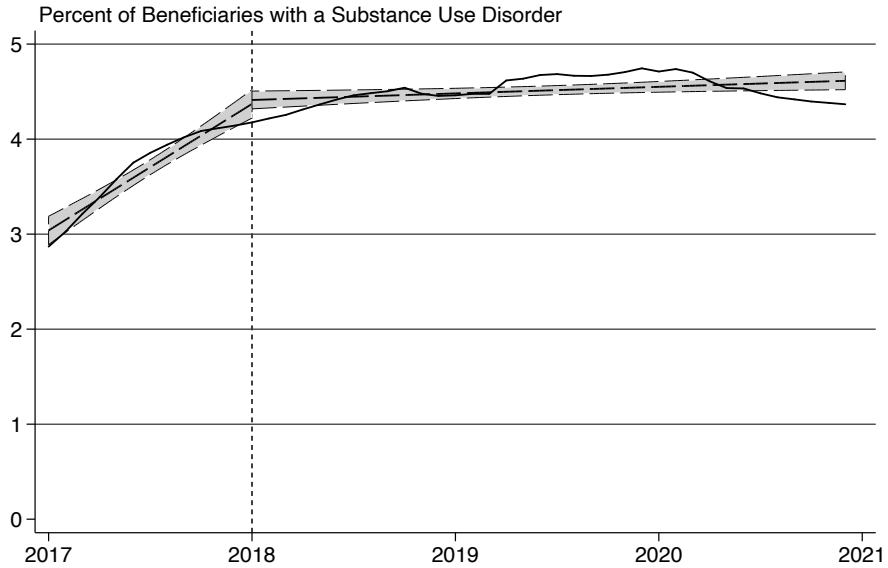
Pre-Period Slope	1867.63*** (188.32) [1488.11, 2247.16]
Level Change	-1420.97 (1347.09) [-4135.84, 1293.91]
Post-Period Slope	243.28*** (31.16) [180.47, 306.08]
Slope Change	-1624.36*** (200.41) [-2028.26, -1220.45]
Pre-Period Mean	55151.25
Pre-Period Min	42763
Pre-Period Max	62847
Post-Period Mean	70127.22
Post-Period Min	63424
Post-Period Max	74610
Observations	48

Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 0.0 (supplement)
Monitoring Metric: N/A
Description: Percent of Medicaid Beneficiaries with SUD Diagnosis (monthly)
Primary Driver: N/A
Secondary Driver: N/A



Notes: The numerator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an OUD/SUD diagnosis code as the primary diagnosis. The denominator is the number of unduplicated Medicaid beneficiaries eligible for the demonstration. Intervention date was assigned to the first quarter of the demonstration period.



Notes: The numerator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an OUD/SUD diagnosis code as the

primary diagnosis. The denominator is the number of unduplicated Medicaid beneficiaries eligible for the demonstration. Intervention date was assigned to the first quarter of the demonstration period.

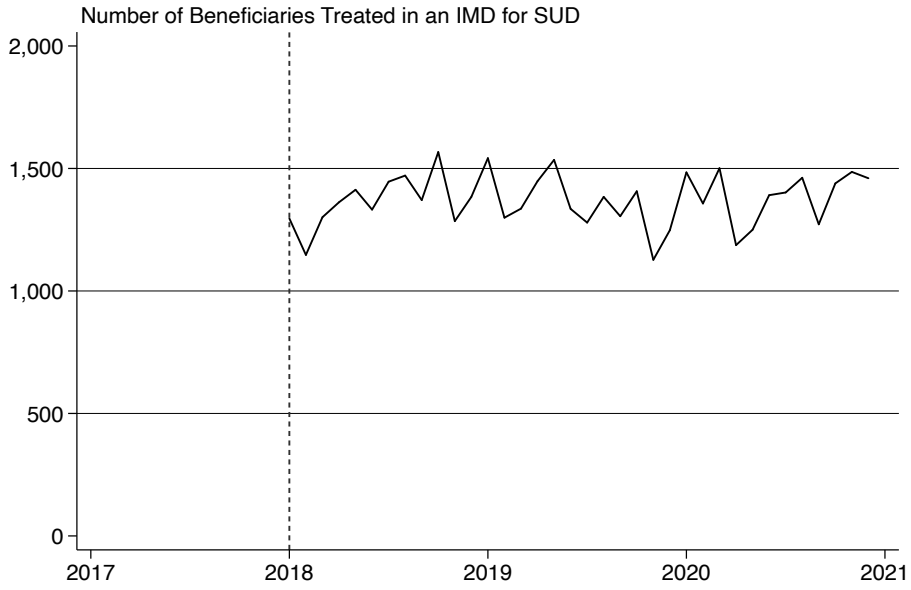
ITS Estimates

Pre-Period Slope	0.120*** (0.013) [0.094, 0.146]
Level Change	-0.033 (0.102) [-0.239, 0.174]
Post-Period Slope	0.006 (0.005) [-0.004, 0.015]
Slope Change	-0.114*** (0.015) [-0.143, -0.085]
Pre-Period Mean	3.67
Pre-Period Min	2.87
Pre-Period Max	4.14
Post-Period Mean	4.51
Post-Period Min	4.18
Post-Period Max	4.74
Observations	48

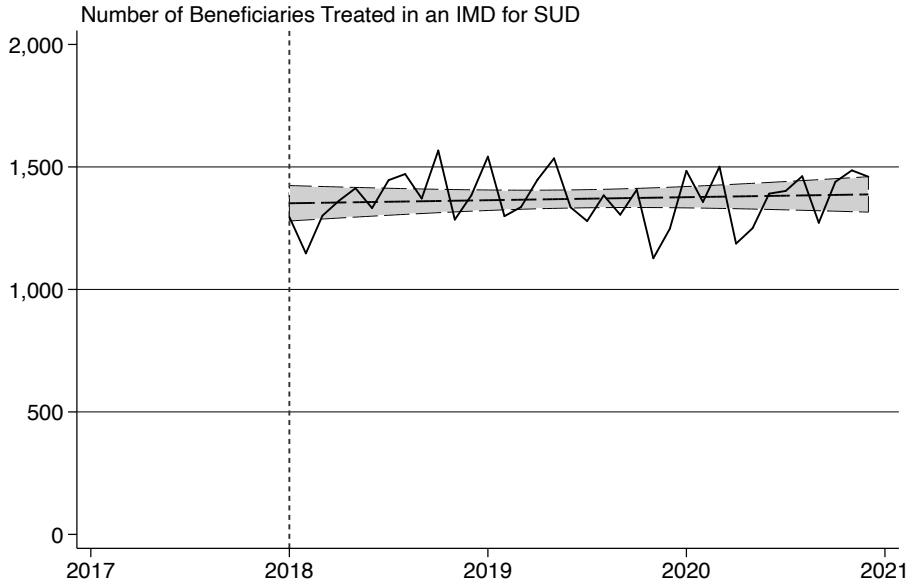
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #5, Medicaid Beneficiaries Treated in an IMD for SUD
Description: Number of unduplicated beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: Number of unduplicated beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider. Intervention date was assigned to the first quarter of the demonstration period.



Notes: Number of unduplicated beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider. Intervention date was assigned to the first quarter of the demonstration period.

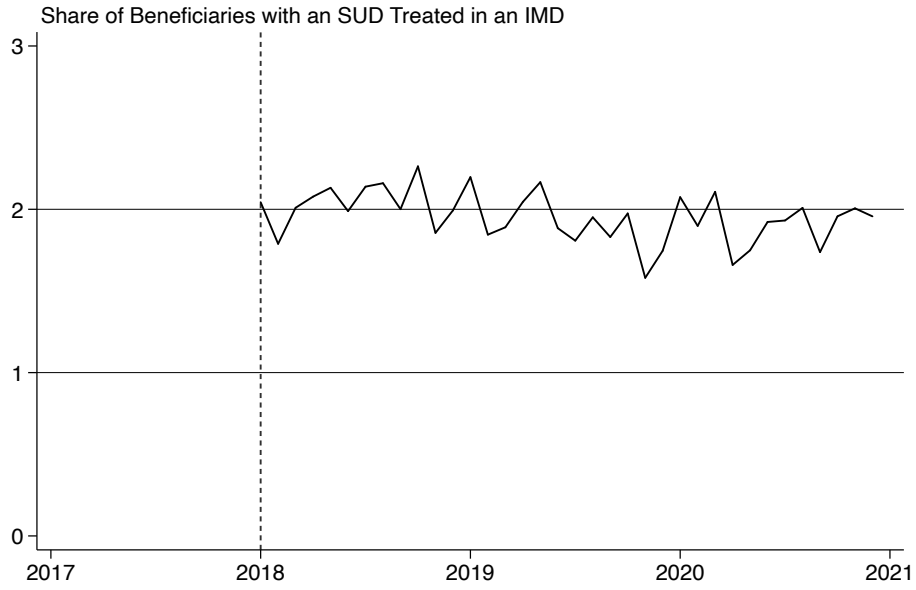
ITS Estimates

Pre-Period Slope	N/A
Level Change	N/A
Post-Period Slope	N/A
Slope Change	N/A
Pre-Period Mean	N/A
Pre-Period Min	N/A
Pre-Period Max	N/A
Post-Period Mean	1369.75
Post-Period Min	1127
Post-Period Max	1567
Observations	36

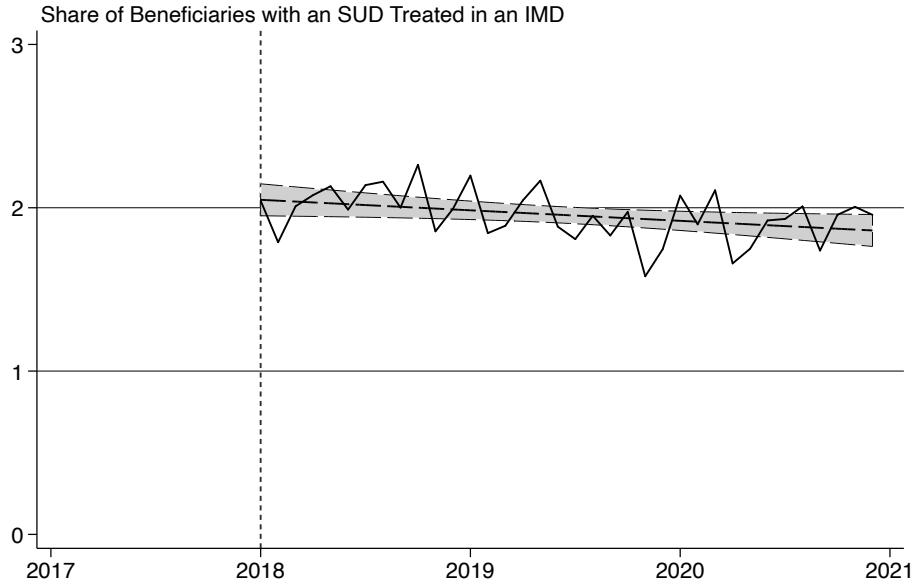
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: *N/A*
Description: Percent of unduplicated Medicaid Beneficiaries with an SUD enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the number of unduplicated beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the number of unduplicated beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis from an IMD provider. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

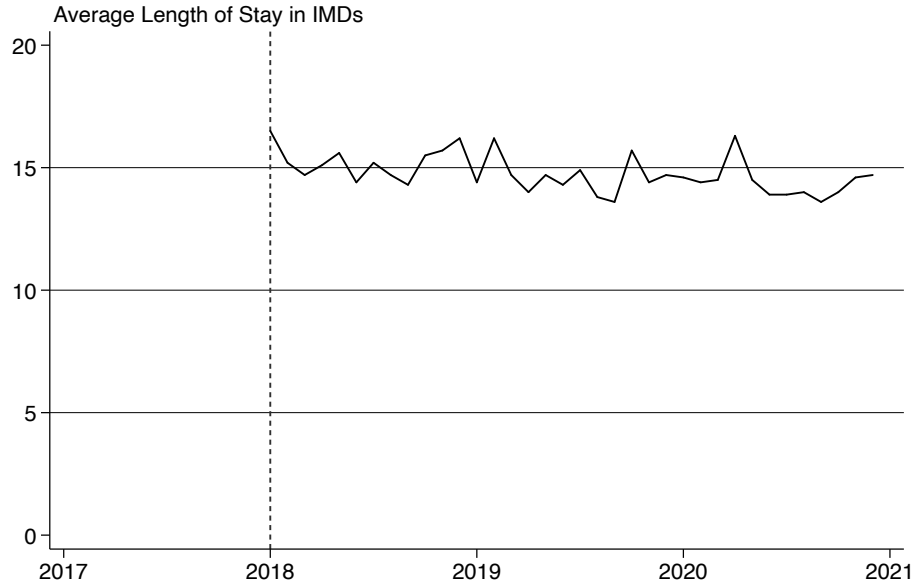
ITS Estimates

Pre-Period Slope	N/A
Level Change	N/A
Post-Period Slope	N/A
Slope Change	N/A
Pre-Period Mean	N/A
Pre-Period Min	N/A
Pre-Period Max	N/A
Post-Period Mean	1.95
Post-Period Min	1.58
Post-Period Max	2.26
Observations	36

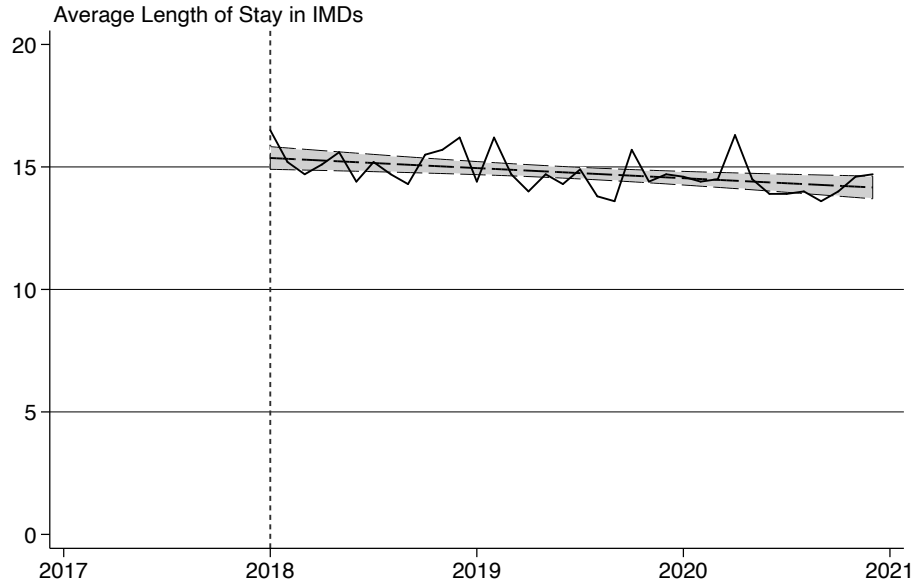
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #36, Average Length of Stay in IMDs
Description: The average length of stay for beneficiaries discharged from IMD inpatient/residential treatment for SUD
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: Average length of stay for Medicaid beneficiaries with SUD treated in an IMD.



Notes: Average length of stay for Medicaid beneficiaries with SUD treated in an IMD.

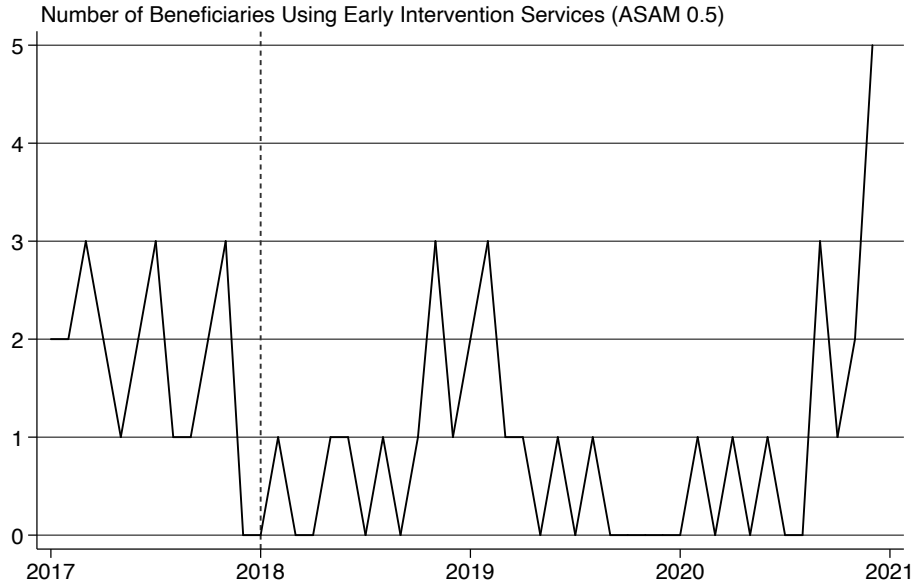
ITS Estimates

Pre-Period Slope	N/A
Level Change	N/A
Post-Period Slope	N/A
Slope Change	N/A
Pre-Period Mean	N/A
Pre-Period Min	N/A
Pre-Period Max	N/A
Post-Period Mean	14.76
Post-Period Min	13.6
Post-Period Max	16.5
Observations	36

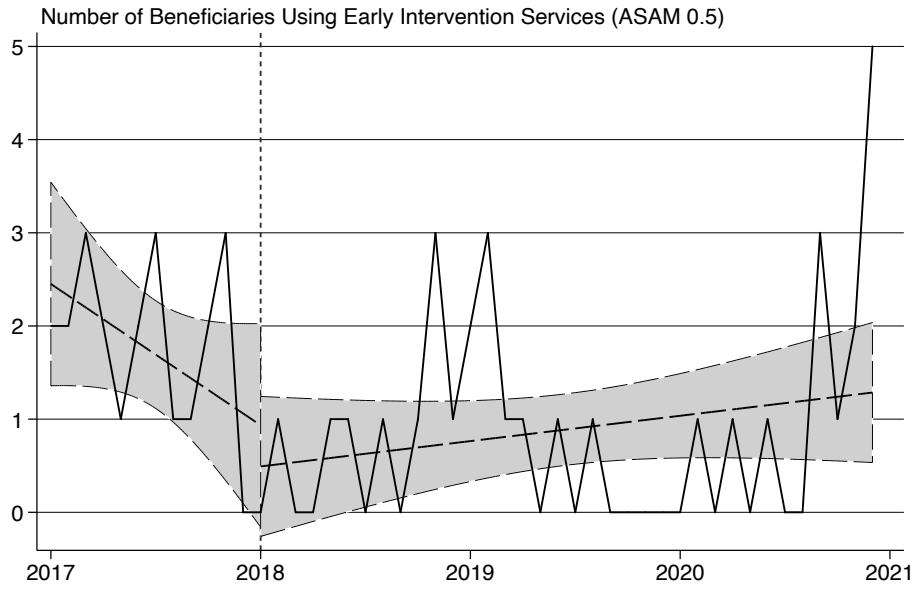
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #7, Early Intervention (ASAM 0.5)
Description: Number of beneficiaries who used early intervention services (such as procedure codes associated with SBIRT) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The total number of unduplicated beneficiaries with a service claim for early intervention services (such as procedure codes associated with SBIRT) during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for early intervention services (such as procedure codes associated with SBIRT) during the measurement period.

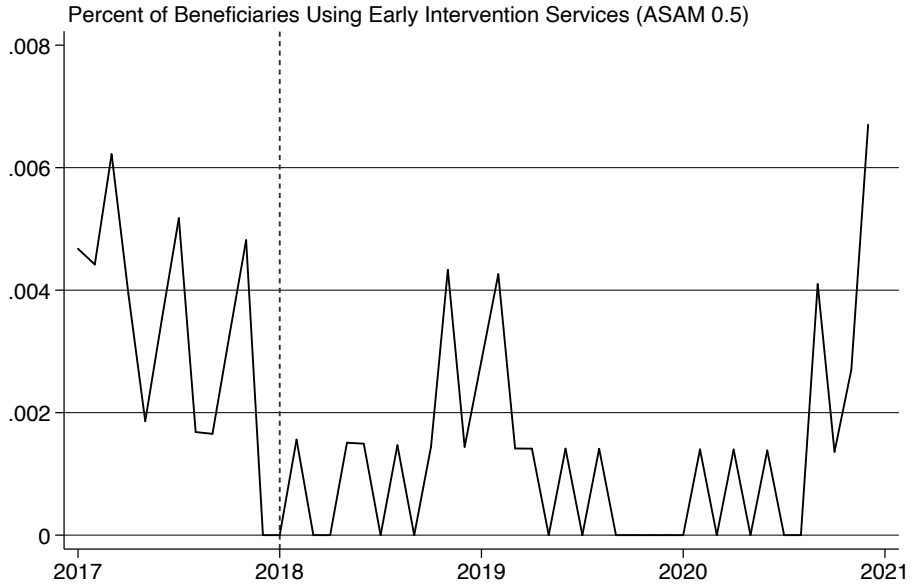
ITS Estimates

Pre-Period Slope	-0.084** (0.039) [-0.163, -0.005]
Level Change	-0.795 (0.488) [-1.779, 0.188]
Post-Period Slope	0.023 (0.025) [-0.028, 0.074]
Slope Change	0.107** (0.047) [0.011, 0.202]
Pre-Period Mean	1.83
Pre-Period Min	0
Pre-Period Max	3
Post-Period Mean	0.889
Post-Period Min	0
Post-Period Max	5
Observations	48

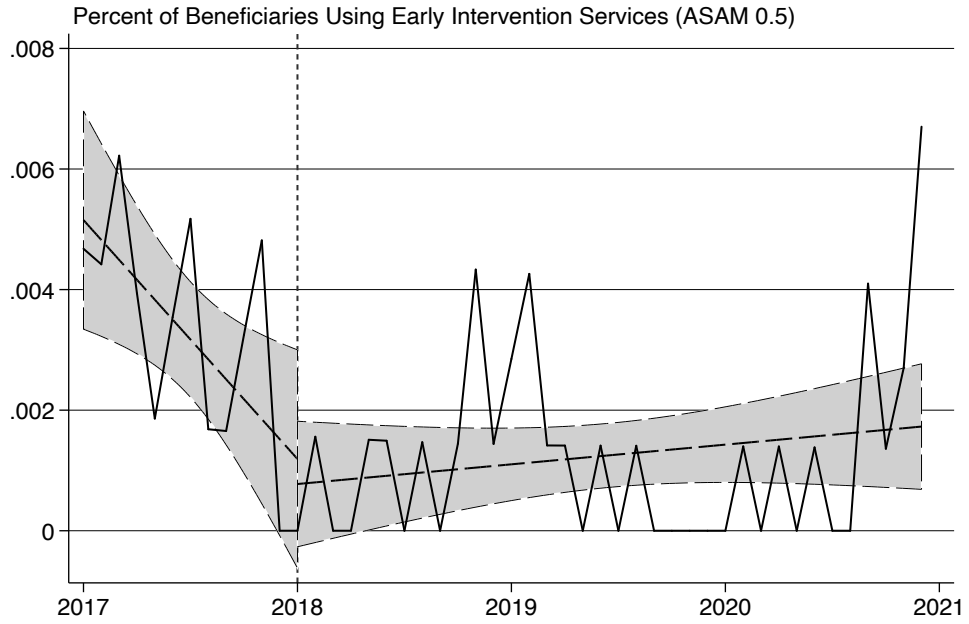
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: N/A
Description: Percent of beneficiaries who used early intervention services (such as procedure codes associated with SBIRT) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for early intervention services (such as procedure codes associated with SBIRT) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for early intervention services (such as procedure codes associated with SBIRT) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

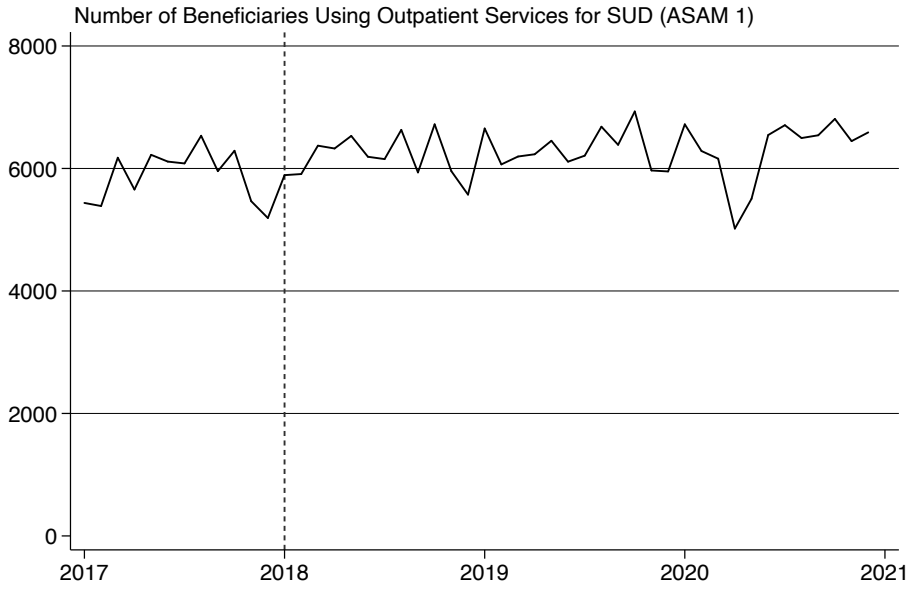
ITS Estimates

Pre-Period Slope	-0.0003*** (0.0001) [-0.0004, -0.0001]
Level Change	-0.0009 (0.0007) [-0.0023, 0.0006]
Post-Period Slope	0.0000 (0.0000) [-0.0000, 0.0001]
Slope Change	0.0003*** (0.0001) [0.0002, 0.0005]
Pre-Period Mean	0.003
Pre-Period Min	0
Pre-Period Max	0.006
Post-Period Mean	0.001
Post-Period Min	0
Post-Period Max	0.007
Observations	48

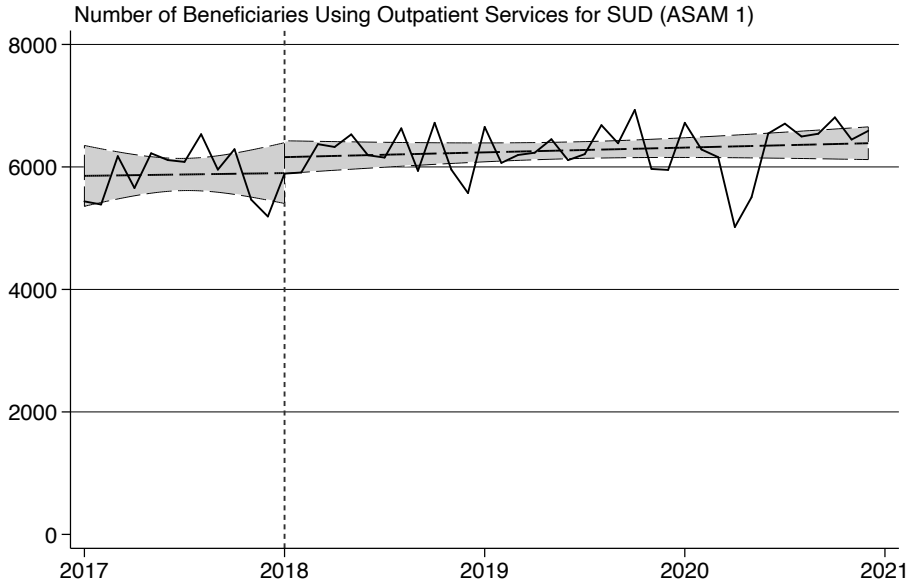
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #8, Outpatient Services (ASAM 1)
Description: Number of beneficiaries who used outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The total number of unduplicated beneficiaries with a service claim for outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period.

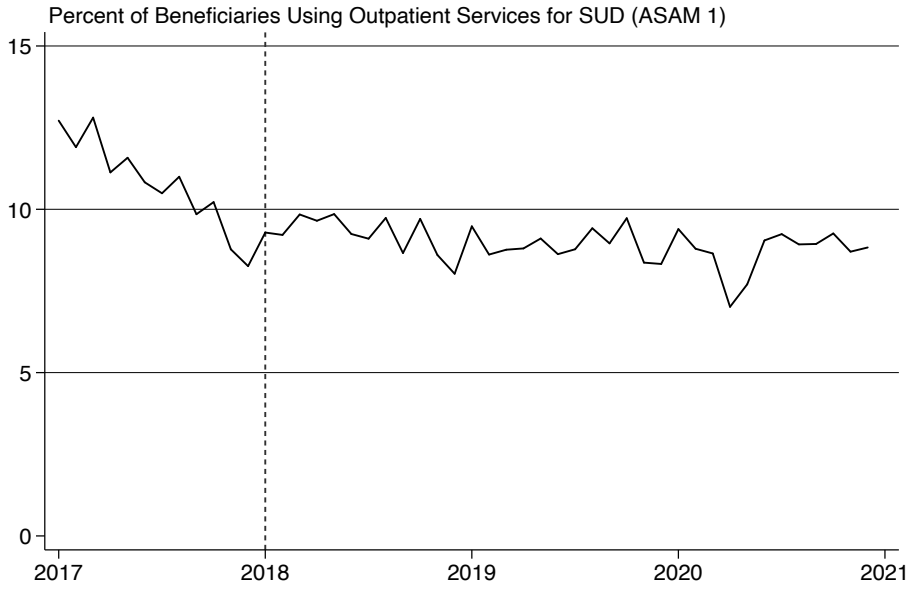
ITS Estimates

Pre-Period Slope	4.19 (44.46) [-85.41, 93.79]
Level Change	257.10 (341.30) [-430.75, 944.95]
Post-Period Slope	6.48 (6.96) [-7.54, 20.51]
Slope Change	2.29 (46.03) [-90.48, 95.07]
Pre-Period Mean	5875.75
Pre-Period Min	5191
Pre-Period Max	6534
Post-Period Mean	6273.58
Post-Period Min	5018
Post-Period Max	6931
Observations	48

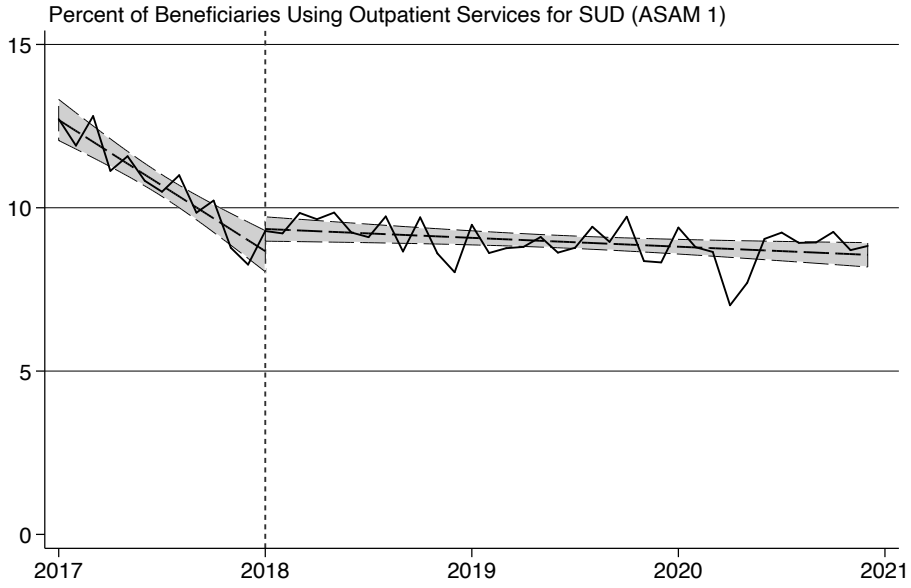
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: N/A
Description: Percent of beneficiaries who used outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for outpatient services for SUD (such as outpatient recovery or motivational enhancement therapies, step down care, and monitoring for stable patients) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

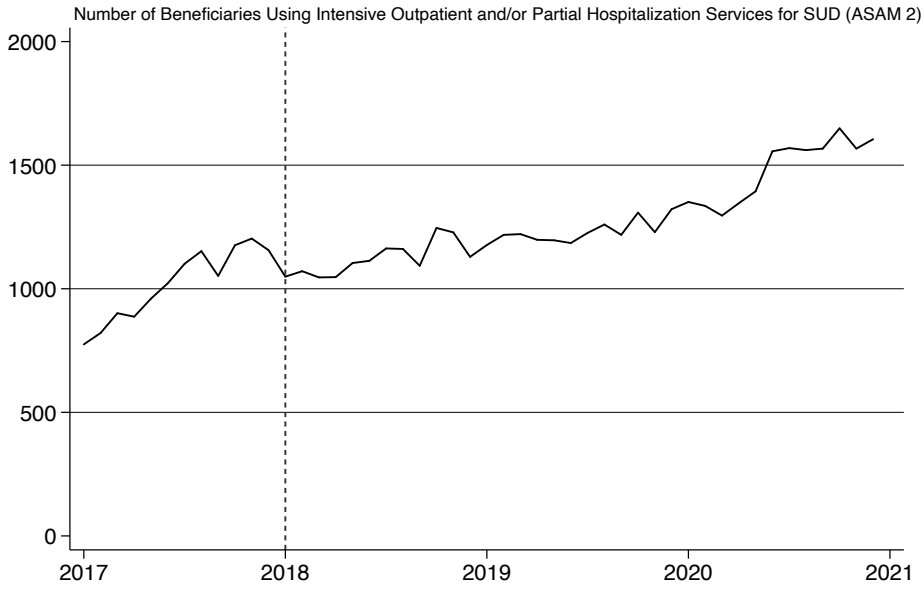
ITS Estimates

Pre-Period Slope	-0.363*** (0.031) [-0.425, -0.300]
Level Change	0.912*** (0.320) [0.267, 1.557]
Post-Period Slope	-0.023** (0.010) [-0.043, -0.002]
Slope Change	0.340*** (0.033) [0.274, 0.406]
Pre-Period Mean	10.80
Pre-Period Min	8.26
Pre-Period Max	12.81
Post-Period Mean	8.95
Post-Period Min	7.01
Post-Period Max	9.85
Observations	48

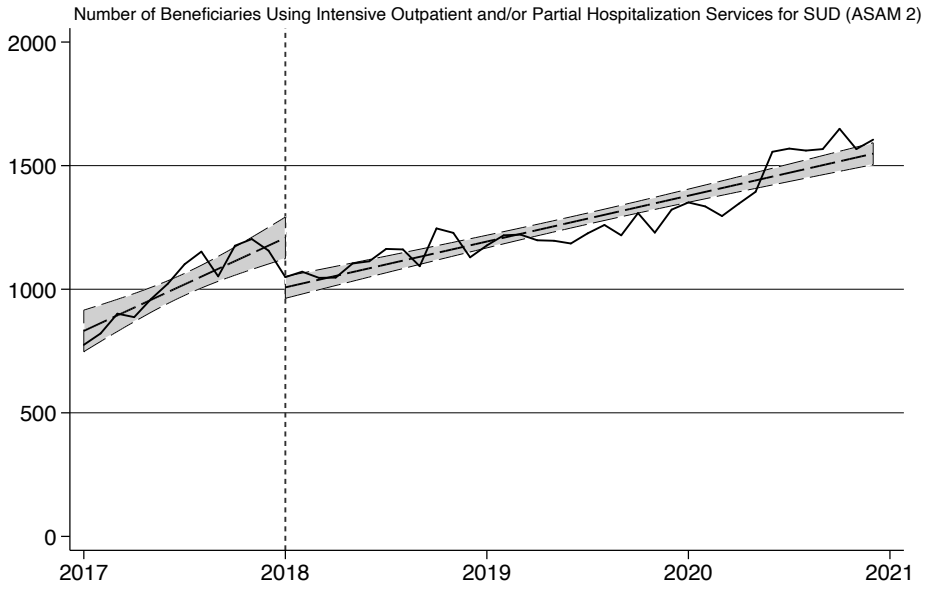
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #9, Intensive Outpatient and Partial Hospitalization (ASAM 2)
Description: Number of beneficiaries who used intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The total number of unduplicated beneficiaries with a service claim for intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period.

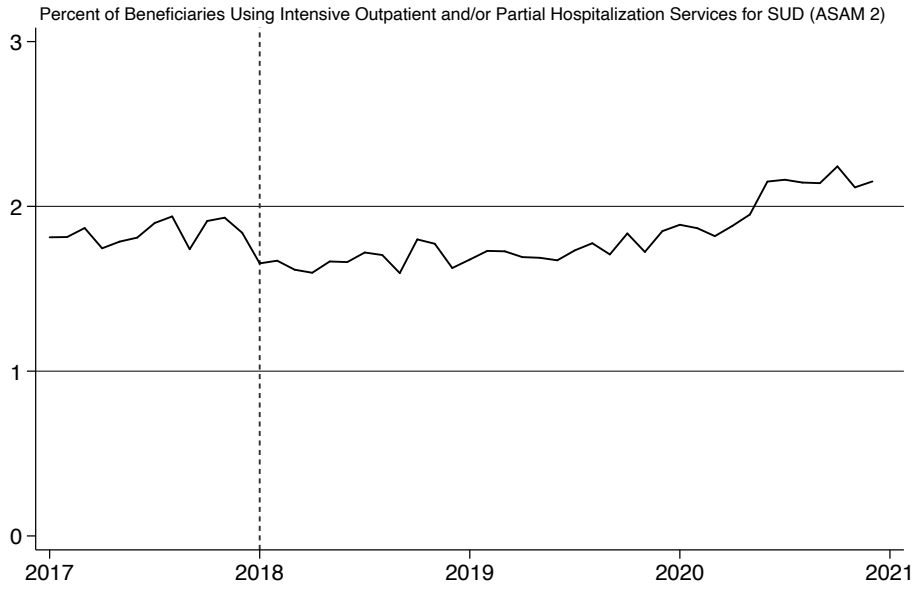
ITS Estimates

Pre-Period Slope	38.58*** (3.28) [31.96, 45.20]
Level Change	-260.45*** (40.91) [-342.89, -178.01]
Post-Period Slope	15.45*** (1.70) [12.03, 18.87]
Slope Change	-23.13*** (3.51) [-30.20, -16.06]
Pre-Period Mean	1017.17
Pre-Period Min	775
Pre-Period Max	1203
Post-Period Mean	1277.89
Post-Period Min	1046
Post-Period Max	1649
Observations	48

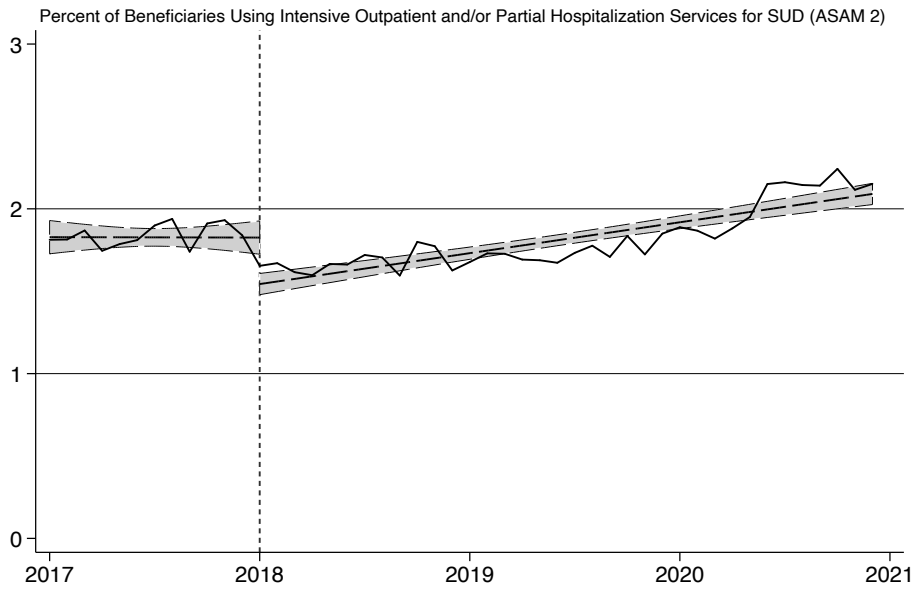
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: N/A
Description: Percent of beneficiaries who used intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for intensive outpatient and/or partial hospitalization services for SUD (such as specialized outpatient SUD therapy or other clinical services) during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

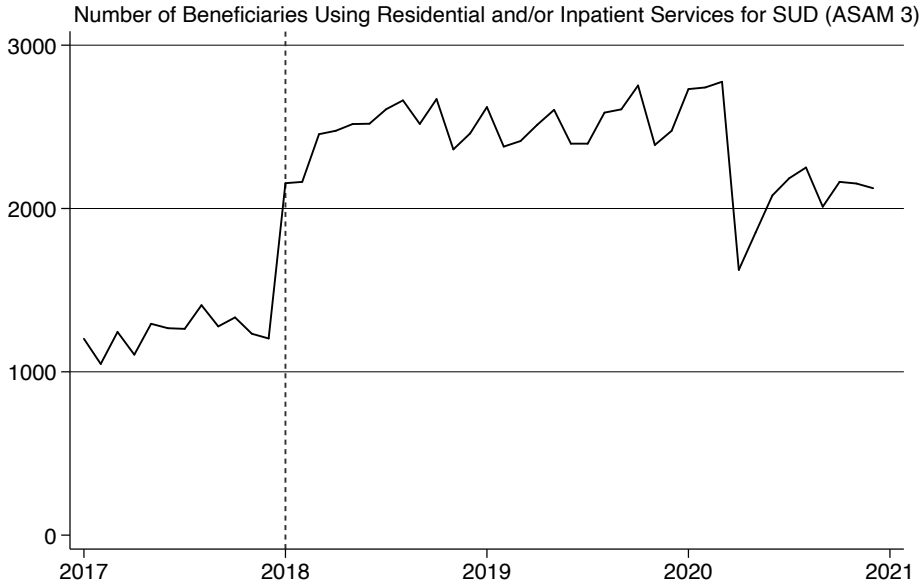
ITS Estimates

Pre-Period Slope	0.008*** (0.002) [0.003, 0.012]
Level Change	-0.347*** (0.047) [-0.441, -0.253]
Post-Period Slope	0.016*** (0.003) [0.010, 0.021]
Slope Change	0.008** (0.003) [0.001, 0.015]
Pre-Period Mean	1.84
Pre-Period Min	1.74
Pre-Period Max	1.94
Post-Period Mean	1.82
Post-Period Min	1.60
Post-Period Max	2.24
Observations	48

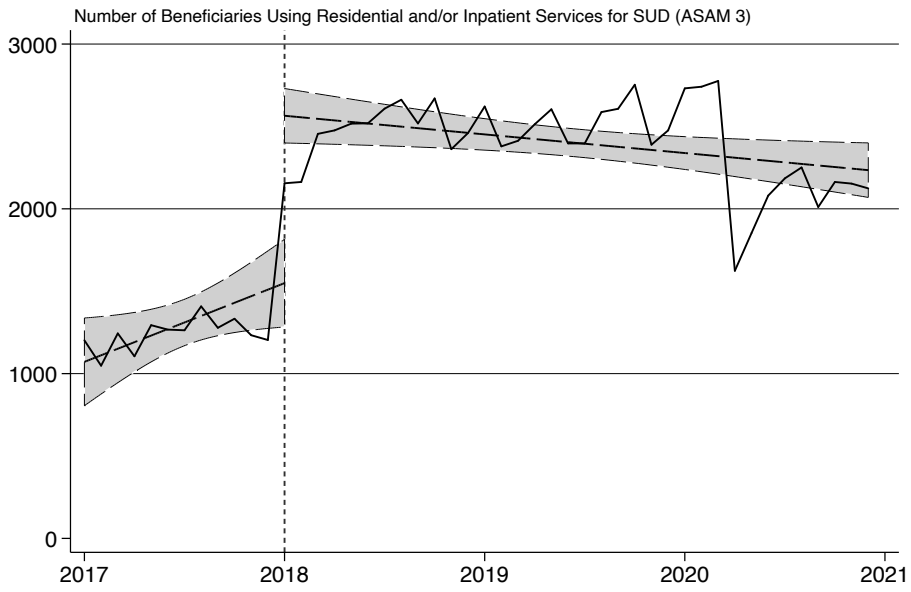
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #10, Residential and Inpatient Services (ASAM 3)
Description: Number of beneficiaries who used residential and/or inpatient services for SUD during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The total number of unduplicated beneficiaries with a service claim for residential and/or inpatient services for SUD during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for residential and/or inpatient services for SUD during the measurement period.

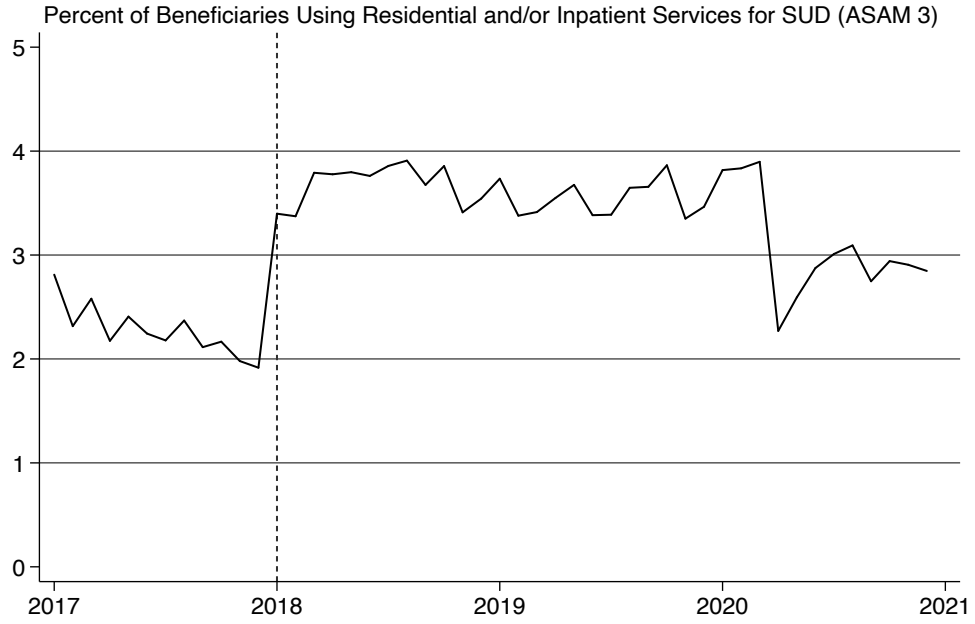
ITS Estimates

Pre-Period Slope	12.28* (6.53) [-0.868, 25.434]
Level Change	1245.14*** (90.44) [1062.88, 1427.40]
Post-Period Slope	-9.43* (5.58) [-20.68, 1.81]
Slope Change	-21.72** (9.91) [-41.69, -1.74]
Pre-Period Mean	1239.92
Pre-Period Min	1048
Pre-Period Max	1408
Post-Period Mean	2399.81
Post-Period Min	1624
Post-Period Max	2776
Observations	48

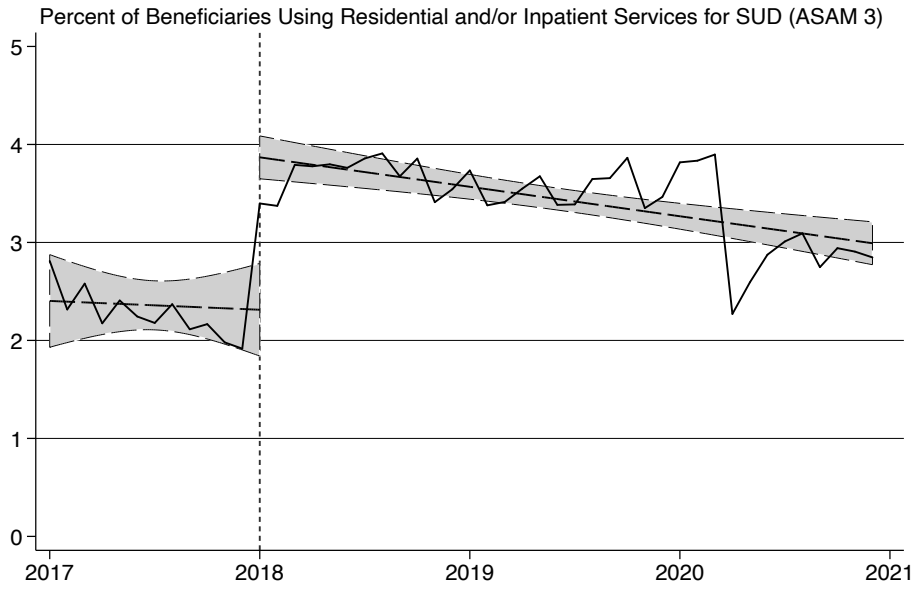
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: N/A
Description: Percent of beneficiaries who used residential and/or inpatient services for SUD during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for residential and/or inpatient services for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for residential and/or inpatient services for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

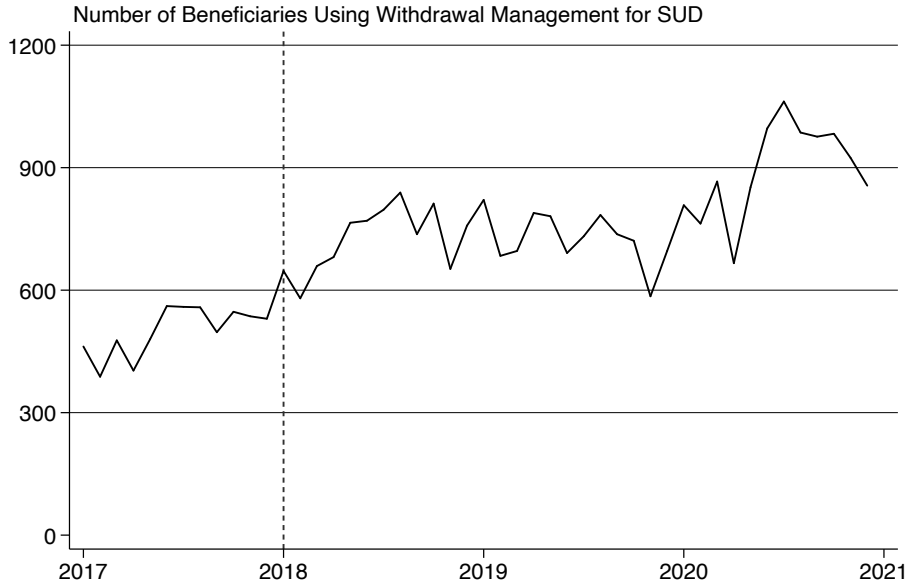
ITS Estimates

Pre-Period Slope	-0.057*** (0.008) [-0.072, -0.041]
Level Change	1.966*** (0.111) [1.743, 2.190]
Post-Period Slope	-0.025*** (0.007) [-0.038, -0.012]
Slope Change	0.032*** (0.011) [0.010, 0.053]
Pre-Period Mean	2.27
Pre-Period Min	1.92
Pre-Period Max	2.81
Post-Period Mean	3.43
Post-Period Min	2.27
Post-Period Max	3.91
Observations	48

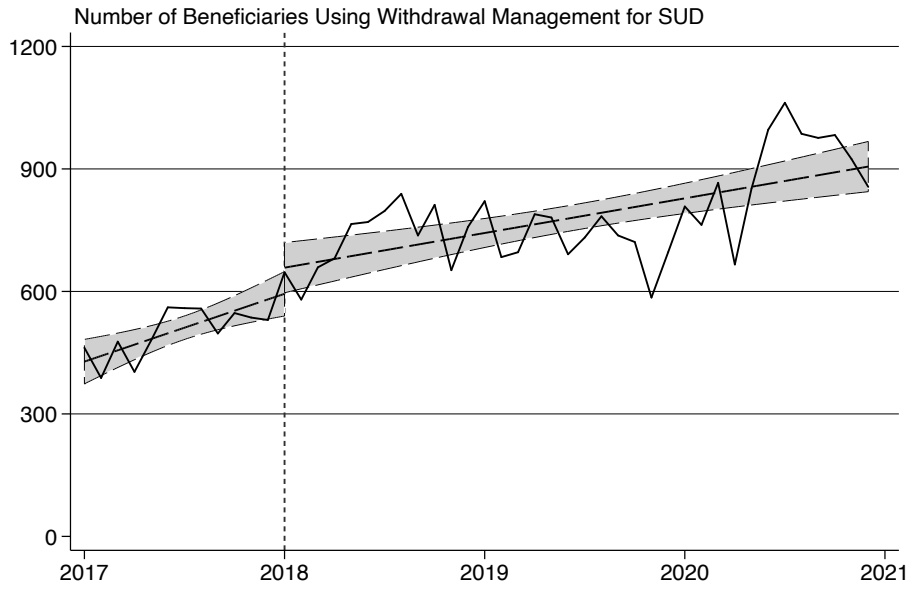
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: #11, Withdrawal Management
Description: Number of beneficiaries who use withdrawal management services (such as outpatient, inpatient, or residential) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The total number of unduplicated beneficiaries with a service claim for withdrawal management for SUD during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for withdrawal management for SUD during the measurement period.

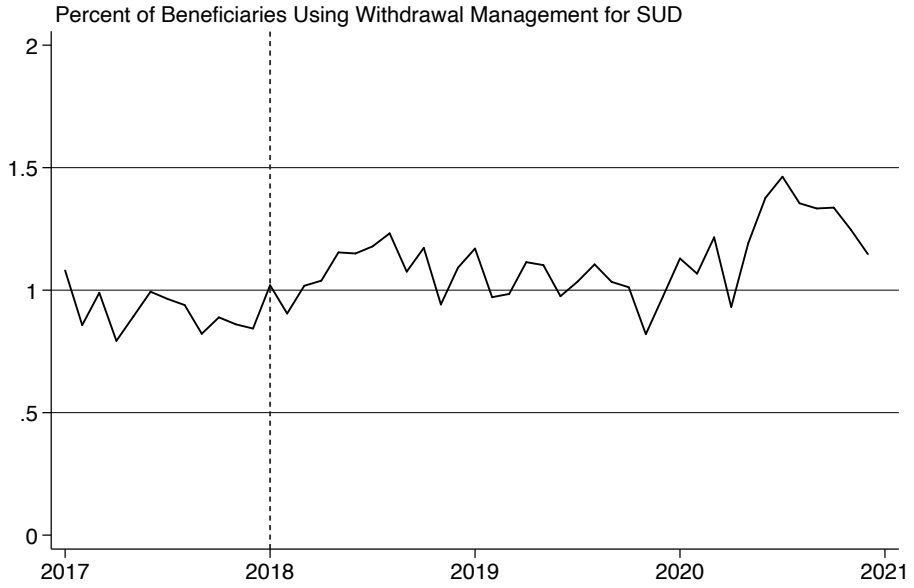
ITS Estimates

Pre-Period Slope	11.44*** (2.66) [6.08, 16.80]
Level Change	84.01** (38.71) [5.98, 162.03]
Post-Period Slope	7.07*** (2.13) [2.78, 11.37]
Slope Change	-4.37 (3.52) [-11.45, 2.72]
Pre-Period Mean	499.83
Pre-Period Min	388
Pre-Period Max	561
Post-Period Mean	782
Post-Period Min	580
Post-Period Max	1062
Observations	48

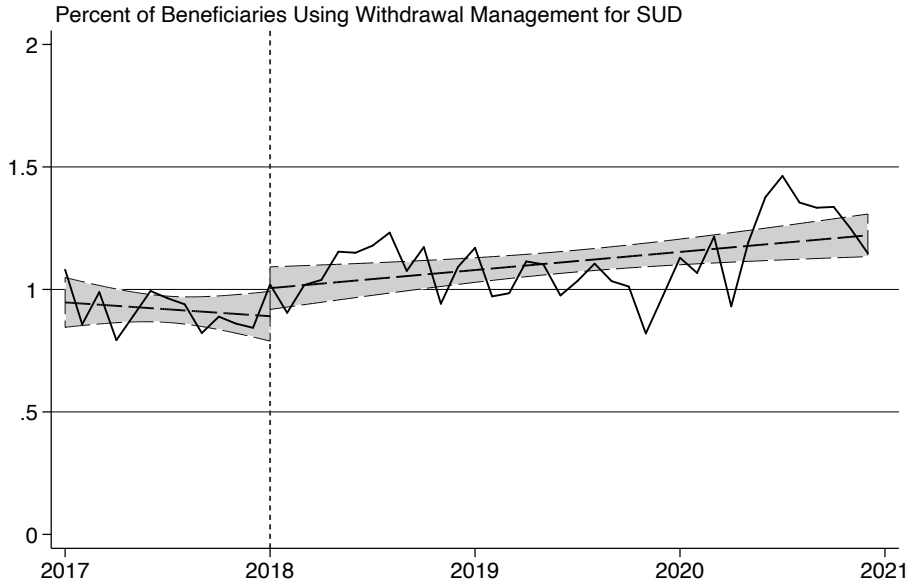
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.1
Monitoring Metric: N/A
Description: Percent of beneficiaries who use withdrawal management services (such as outpatient, inpatient, or residential) during the measurement period.
Primary Driver: Increase access to evidence-based OUD/SUD care
Secondary Drivers:

- Maintaining the status quo for OUD/SUD treatment in IMDs
    - Status: Ongoing
    - Details: Treating SUD in IMDs was occurring before the SUD Demonstration with "in lieu of services" provided by the MCOs, and has continued through the start date of February 1, 2018 for approval of the SUD 1115 Demonstration waiver. Maintaining the status quo for SUD treatment in IMDs is ongoing as maintaining the status quo is the intention of the 1115 waiver.
- Extended coverage to ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended Onsite Monitoring
    - Status: Not started
    - Details: ASAM 1-WM is not currently a Medicaid covered service and is dependent upon future funding via Louisiana legislative budget approval.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for withdrawal management for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for withdrawal management for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

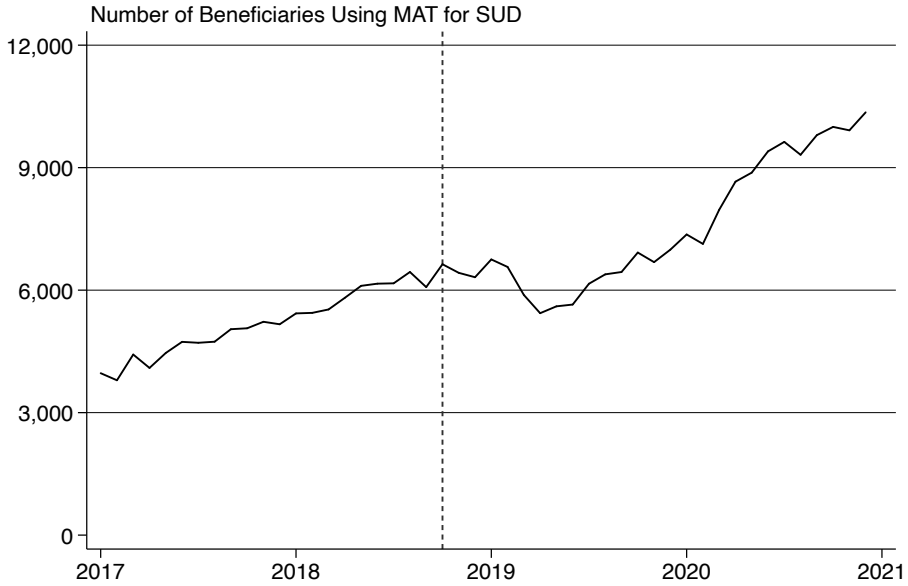
ITS Estimates

Pre-Period Slope	-0.011** (0.004) [-0.019, -0.002]
Level Change	0.164*** (0.053) [0.057, 0.270]
Post-Period Slope	0.006** (0.003) [0.000, 0.012]
Slope Change	0.017*** (0.005) [0.006, 0.027]
Pre-Period Mean	0.910
Pre-Period Min	0.793
Pre-Period Max	1.080
Post-Period Mean	1.113
Post-Period Min	0.820
Post-Period Max	1.463
Observations	48

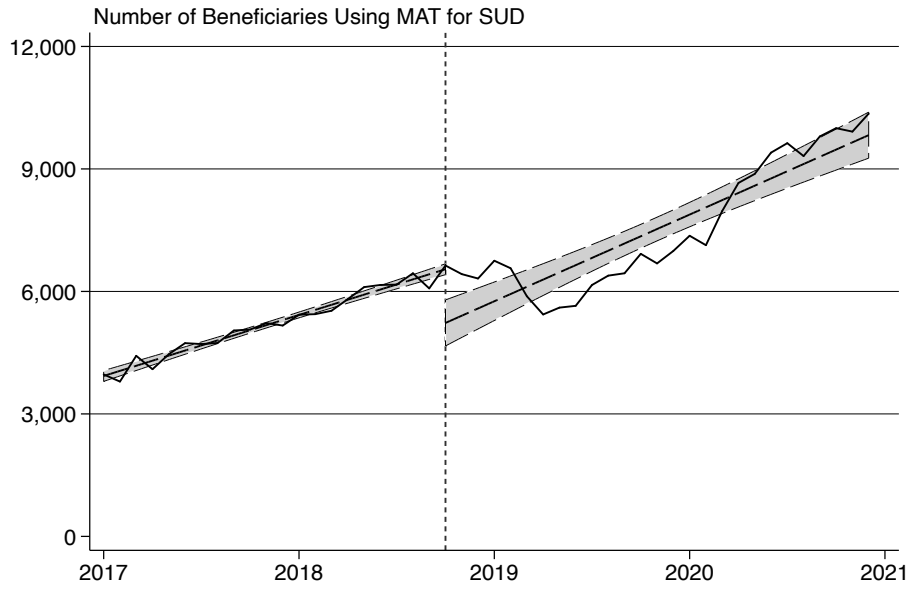
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.2
Monitoring Metric: #12, Medication-Assisted Treatment
Description: Number of beneficiaries who have a claim for MAT for SUD during the measurement period
Primary Driver: Increase access to and utilization of medication-assisted treatment (MAT) for SUD
Secondary Drivers:

- Educate abstinence-based residential providers on benefits of MAT.
    - Status: Started 4/01/2019
    - Details: Increasing access to MAT or OUD is occurring with the CMS requirement for SUD residential providers to offer MAT onsite or facilitate access to MAT offsite when clinically indicated for patients in their care.
- Encourage physicians to become certified dispensers.
    - Status: Started 10/01/2018
    - Details: FDA approved AUD MAT medications (Disulfiram, Acamprosate and Naltrexone) do not require licensed prescribers to be certified, as are data-waivered to prescribe Buprenorphine. In Louisiana, MDs, APRNs, and PAs are qualified to become data waivered. Prescribers are being recruited through The LaSOR grant to participate in the "Hub and Spoke model. The LASOR grant timeframe is 10/01/18 to 9/30/2020. LASOR started recruiting in April "officially" when the LSU Contract was completed. As of 9/13/19, 44 new prescribers were prescribing Suboxone. This recruitment will continue through 9/30/2020 with this grant.



Notes: The total number of unduplicated beneficiaries with a service claim for medication-assisted treatment for SUD during the measurement period.



Notes: The total number of unduplicated beneficiaries with a service claim for medication-assisted treatment for SUD during the measurement period.

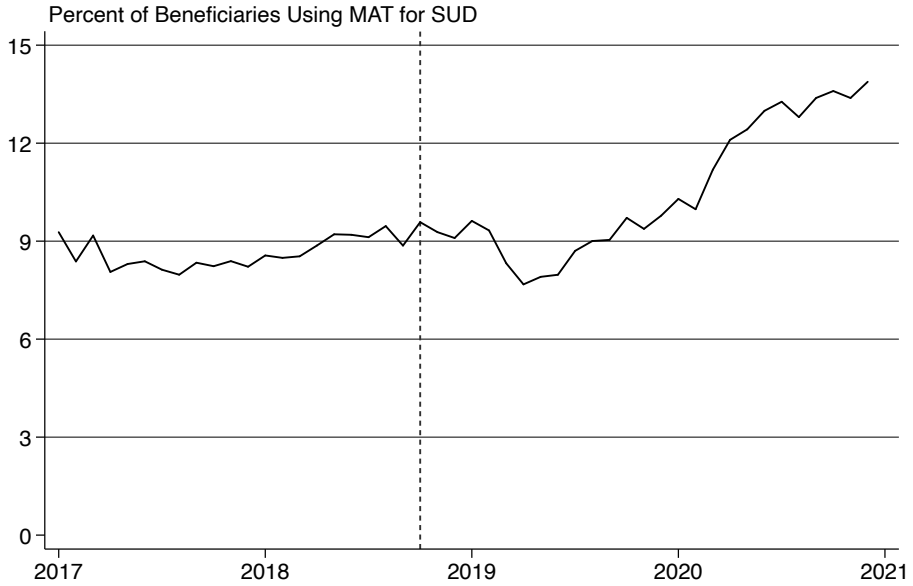
ITS Estimates

Pre-Period Slope	123.19*** (5.08) [112.95, 133.43]
Level Change	-1296.99** (596.41) [-2498.97, -95.01]
Post-Period Slope	176.89*** (32.17) [112.05, 241.73]
Slope Change	53.71* (31.13) [-9.03, 116.44]
Pre-Period Mean	5170.29
Pre-Period Min	3792
Pre-Period Max	6444
Post-Period Mean	7527.96
Post-Period Min	5435
Post-Period Max	10355
Observations	48

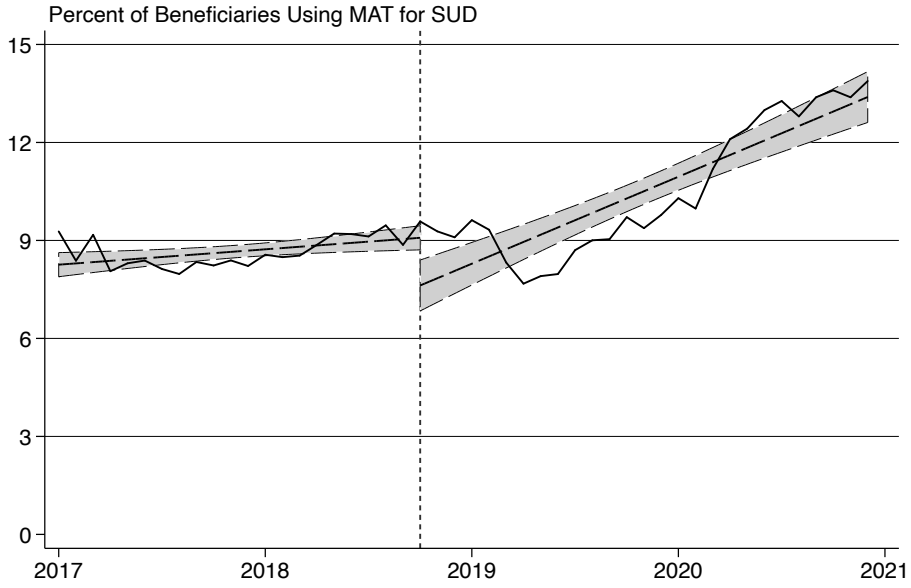
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.2
Monitoring Metric: N/A
Description: Percent of beneficiaries who have a claim for MAT for SUD during the measurement period
Primary Driver: Increase access to and utilization of medication-assisted treatment (MAT) for SUD
Secondary Drivers:

- Educate abstinence-based residential providers on benefits of MAT.
    - Status: Started 4/01/2019
    - Details: Increasing access to MAT or OUD is occurring with the CMS requirement for SUD residential providers to offer MAT onsite or facilitate access to MAT offsite when clinically indicated for patients in their care.
- Encourage physicians to become certified dispensers.
    - Status: Started 10/01/2018
    - Details: FDA approved AUD MAT medications (Disulfiram, Acamprosate and Naltrexone) do not require licensed prescribers to be certified, as are data-waivered to prescribe Buprenorphine. In Louisiana, MDs, APRNs, and PAs are qualified to become data waivered. Prescribers are being recruited through The LaSOR grant to participate in the "Hub and Spoke model. The LASOR grant timeframe is 10/01/18 to 9/30/2020. LASOR started recruiting in April "officially" when the LSU Contract was completed. As of 9/13/19, 44 new prescribers were prescribing Suboxone. This recruitment will continue through 9/30/2020 with this grant.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for medication-assisted treatment for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.



Notes: The numerator is the total number of unduplicated beneficiaries with a service claim for medication-assisted treatment for SUD during the measurement period. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis.

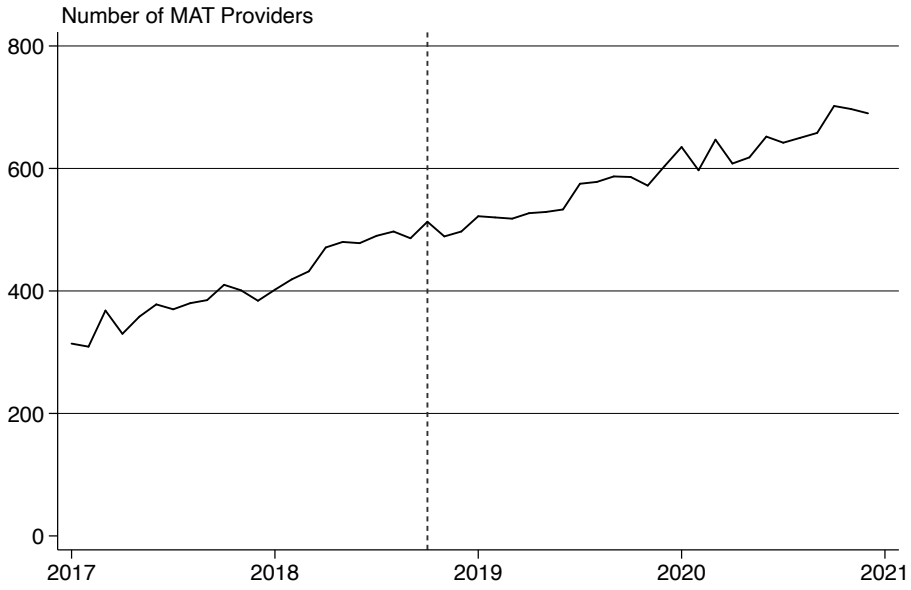
ITS Estimates

Pre-Period Slope	0.032 (0.023) [-0.013, 0.078]
Level Change	-1.36 (0.811) [-2.99, 0.278]
Post-Period Slope	0.222*** (0.044) [0.133, 0.311]
Slope Change	0.190*** (0.051) [0.088, 0.292]
Pre-Period Mean	8.63
Pre-Period Min	7.97
Pre-Period Max	9.46
Post-Period Mean	10.51
Post-Period Min	7.68
Post-Period Max	13.88
Observations	48

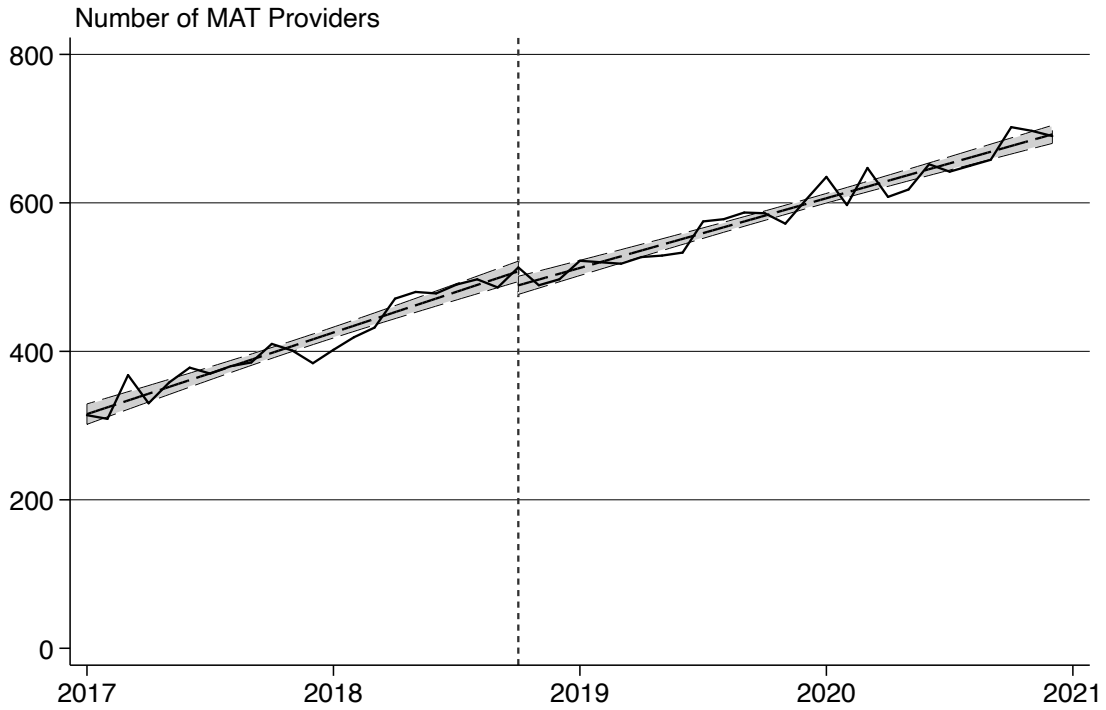
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.2
Monitoring Metric: #14, SUD Provider Availability, Medication-Assisted Treatment
Description: The number of providers who were enrolled in Medicaid and qualified to deliver SUD services during the measurement period and who meet the standards to provide buprenorphine or methadone as part of MAT.
Primary Driver: Increase access to and utilization of medication-assisted treatment (MAT) for SUD
Secondary Drivers:

- Educate abstinence-based residential providers on benefits of MAT.
    - Status: Started 4/01/2019
    - Details: Increasing access to MAT or OUD is occurring with the CMS requirement for SUD residential providers to offer MAT onsite or facilitate access to MAT offsite when clinically indicated for patients in their care.
- Encourage physicians to become certified dispensers.
    - Status: Started 10/01/2018
    - Details: FDA approved AUD MAT medications (Disulfiram, Acamprosate and Naltrexone) do not require licensed prescribers to be certified, as are data-waivered to prescribe Buprenorphine. In Louisiana, MDs, APRNs, and PAs are qualified to become data waivered. Prescribers are being recruited through The LaSOR grant to participate in the "Hub and Spoke model. The LASOR grant timeframe is 10/01/18 to 9/30/2020. LASOR started recruiting in April "officially" when the LSU Contract was completed. As of 9/13/19, 44 new prescribers were prescribing Suboxone. This recruitment will continue through 9/30/2020 with this grant.



Notes: The total number of eligible SUD providers who meet the standards to provide buprenorphine or methadone as part of MAT.



Notes: The total number of eligible SUD providers who meet the standards to provide buprenorphine or methadone as part of MAT.

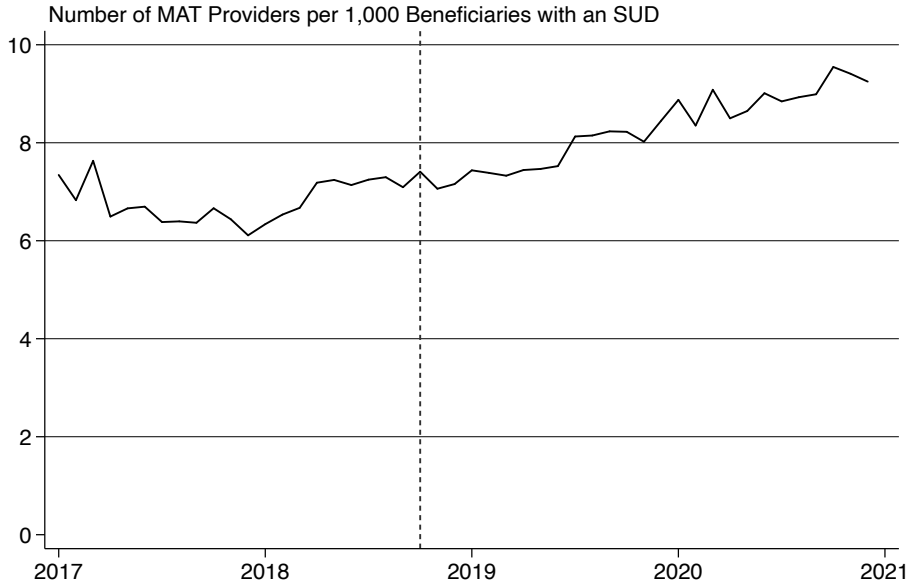
ITS Estimates

Pre-Period Slope	9.08*** (0.489) [8.10, 10.07]
Level Change	-17.81* (9.39) [-36.73, 1,12]
Post-Period Slope	7.82*** (0.321) [7.18, 8.47]
Slope Change	-1.26** (0.581) [-2.43, -0.088]
Pre-Period Mean	406.76
Pre-Period Min	309
Pre-Period Max	497
Post-Period Mean	590.59
Post-Period Min	489
Post-Period Max	702
Observations	48

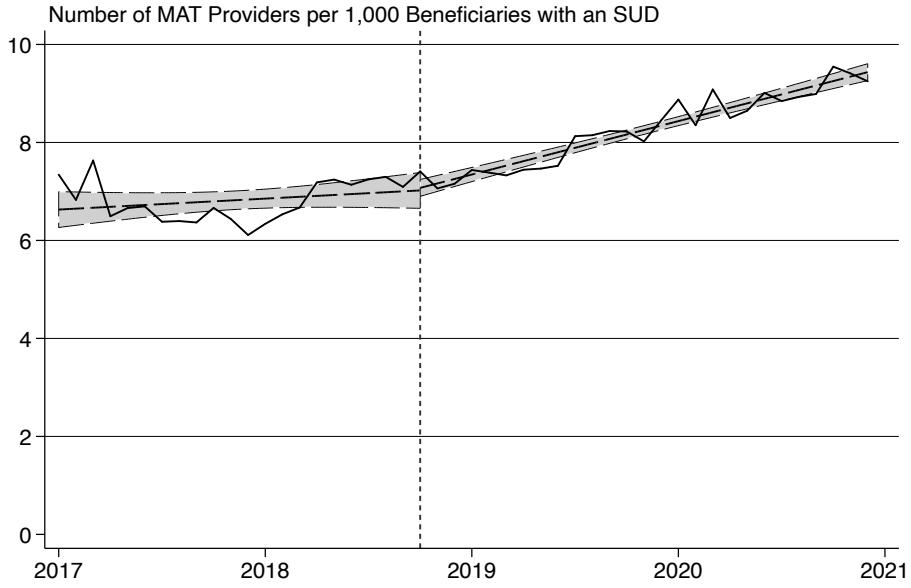
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.2
Monitoring Metric: N/A
Description: The number of providers who were enrolled in Medicaid and qualified to deliver SUD services during the measurement period and who meet the standards to provide buprenorphine or methadone as part of MAT per 1,000 Medicaid Beneficiaries with an SUD Diagnosis.
Primary Driver: Increase access to and utilization of medication-assisted treatment (MAT) for SUD
Secondary Drivers:

- Educate abstinence-based residential providers on benefits of MAT.
    - Status: Started 4/01/2019
    - Details: Increasing access to MAT or OUD is occurring with the CMS requirement for SUD residential providers to offer MAT onsite or facilitate access to MAT offsite when clinically indicated for patients in their care.
- Encourage physicians to become certified dispensers.
    - Status: Started 10/01/2018
    - Details: FDA approved AUD MAT medications (Disulfiram, Acamprosate and Naltrexone) do not require licensed prescribers to be certified, as are data-waivered to prescribe Buprenorphine. In Louisiana, MDs, APRNs, and PAs are qualified to become data waivered. Prescribers are being recruited through The LaSOR grant to participate in the "Hub and Spoke model. The LASOR grant timeframe is 10/01/18 to 9/30/2020. LASOR started recruiting in April "officially" when the LSU Contract was completed. As of 9/13/19, 44 new prescribers were prescribing Suboxone. This recruitment will continue through 9/30/2020 with this grant.



Notes: The numerator is the total number of eligible SUD providers who meet the standards to provide buprenorphine or methadone as part of MAT. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis (in thousands).



Notes: The numerator is the total number of eligible SUD providers who meet the standards to provide buprenorphine or methadone as part of MAT. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis (in thousands).

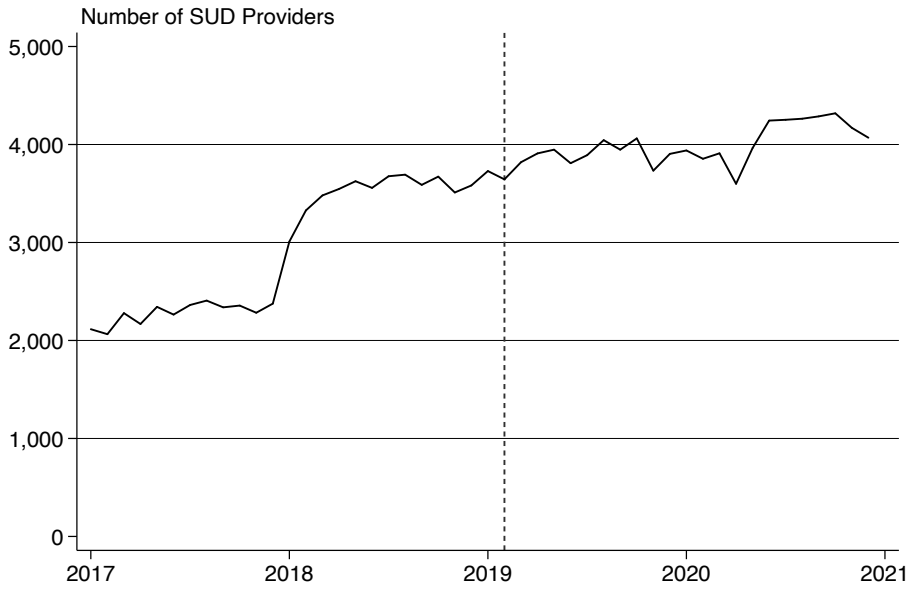
ITS Estimates

Pre-Period Slope	0.013 (0.022)
Level Change	0.131 (0.267)
Post-Period Slope	0.091*** (0.004)
Slope Change	0.078*** (0.023)
Pre-Period Mean	6.80
Pre-Period Min	6.11
Pre-Period Max	7.63
Post-Period Mean	8.25
Post-Period Min	7.06
Post-Period Max	9.55
Observations	48

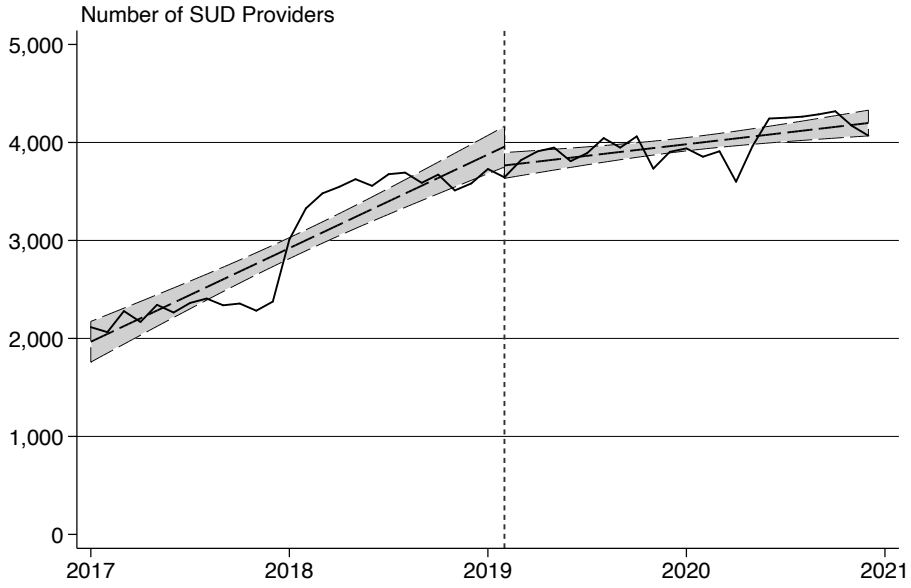
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.3
Monitoring Metric: #13, SUD Provider Availability
Description: The number of providers who were enrolled in Medicaid and qualified to deliver SUD services during the measurement period.
Primary Driver: Ensure sufficient provider capacity at each level of care for SUD
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
    - Status: Started 1/30/2019
    - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.



Notes: Total number of eligible SUD providers.



Notes: Total number of eligible SUD providers.

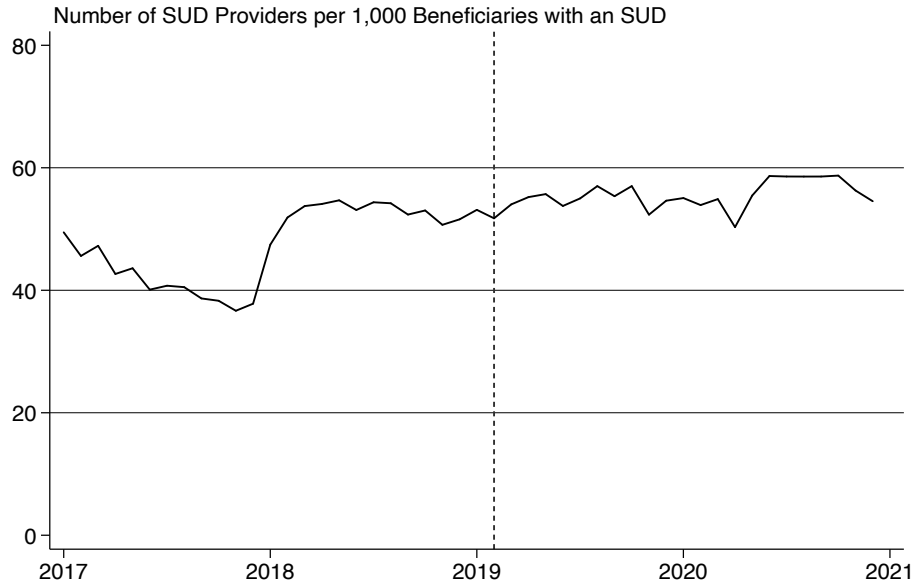
ITS Estimates

Pre-Period Slope	82.74*** (8.09) [66.43, 99.06]
Level Change	-244.36 (154.19) [-555.11, 66.38]
Post-Period Slope	19.68*** (4.80) [10.01, 29.34]
Slope Change	-63.07*** (9.75) [-82.71, -43,42]
Pre-Period Mean	2933.92
Pre-Period Min	2064
Pre-Period Max	3729
Post-Period Mean	3981.65
Post-Period Min	3599
Post-Period Max	4318
Observations	48

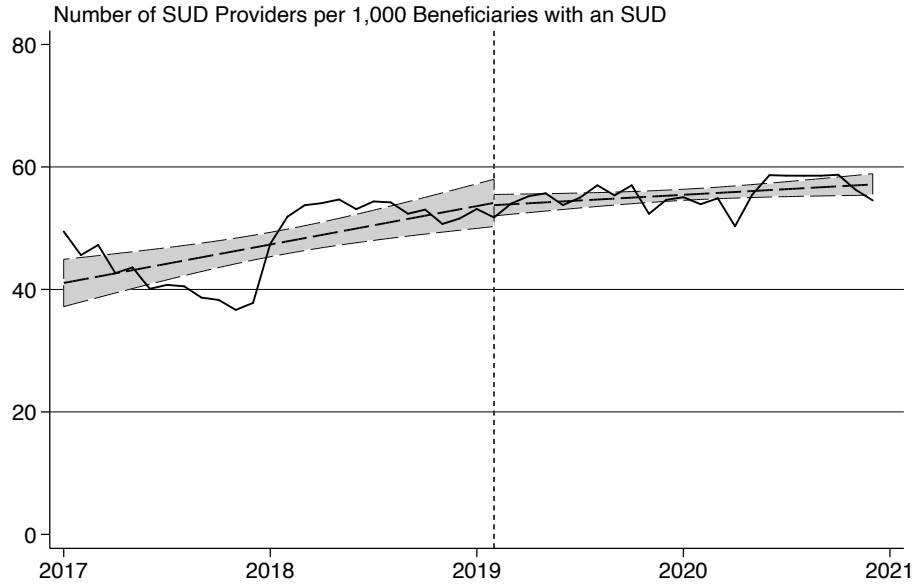
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 1.3
Monitoring Metric: N/A
Description: The number of providers who were enrolled in Medicaid and qualified to deliver SUD services during the measurement period per 1,000 Medicaid Beneficiaries with an SUD Diagnosis.
Primary Driver: Ensure sufficient provider capacity at each level of care for SUD
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
    - Status: Started 1/30/2019
    - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.



Notes: The numerator is the total number of eligible SUD providers. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis (in thousands).



Notes: The numerator is the total number of eligible SUD providers. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis (in thousands).

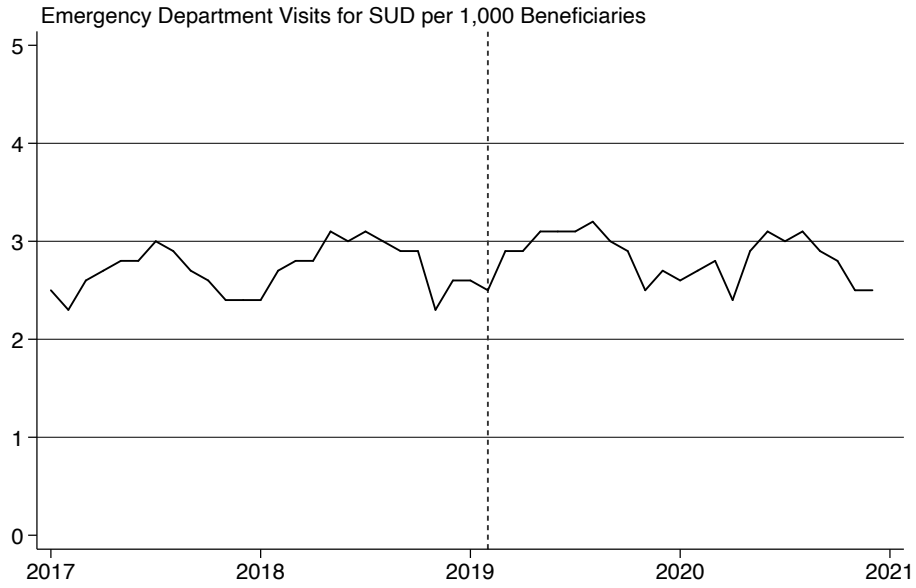
ITS Estimates

Pre-Period Slope	0.547*** (0.179) [0.185, 0.908]
Level Change	-0.780 (2.207) [-5.23, 3.67]
Post-Period Slope	0.154** (0.066) [0.022, 0.286]
Slope Change	-0.393** (0.193) [-0.782, -0.004]
Pre-Period Mean	47.43
Pre-Period Min	36.65
Pre-Period Max	54.69
Post-Period Mean	55.45
Post-Period Min	50.31
Post-Period Max	58.72
Observations	48

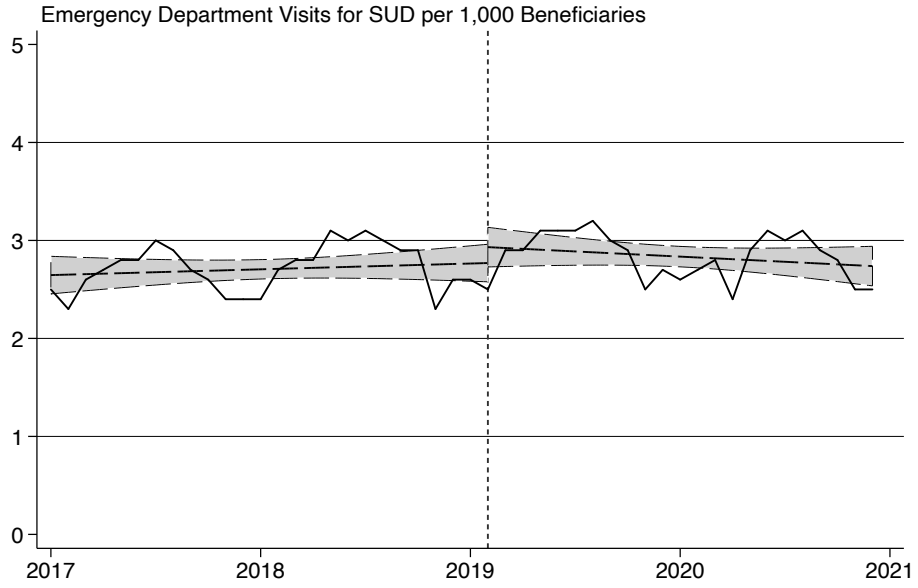
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 2.1
Monitoring Metric: #23, Emergency Department Visits for SUD
Description: The number of ED visits for SUD per 1,000 beneficiaries in the measurement period.
Primary Driver: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for SUD treatment.
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
    - Status: Started 1/30/2019
    - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.



Notes: The numerator is the total number of emergency department visits for SUD during the measurement period. The denominator is the total number of unduplicated Medicaid beneficiaries (in thousands).



Notes: The numerator is the total number of emergency department visits for SUD during the measurement period. The denominator is the total number of unduplicated Medicaid beneficiaries (in thousands).

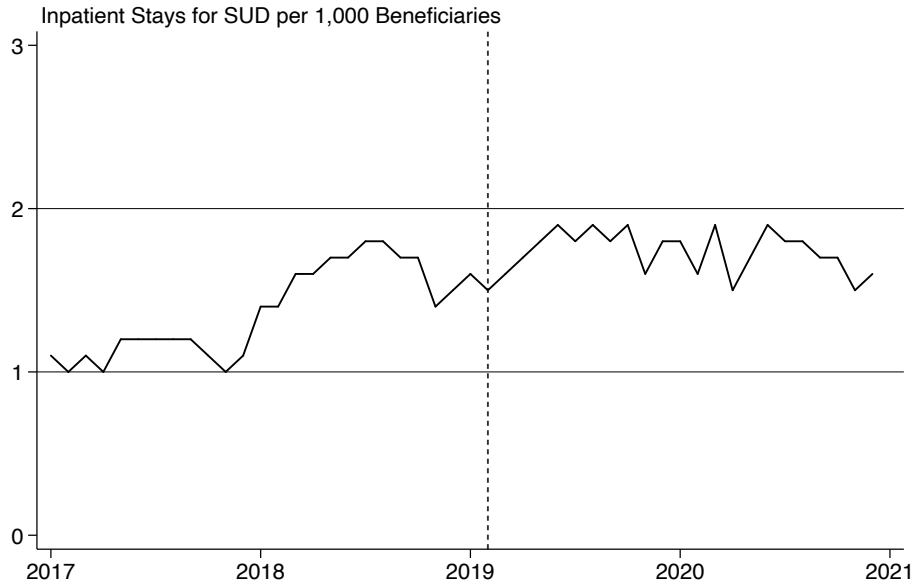
ITS Estimates

Pre-Period Slope	0.008 (0.009) [-0.011, 0.026]
Level Change	0.117 (0.179) [-0.243, 0.476]
Post-Period Slope	-0.009 (0.010) [-0.028, 0.011]
Slope Change	-0.016 (0.015) [-0.046, 0.013]
Pre-Period Mean	2.72
Pre-Period Min	2.3
Pre-Period Max	3.1
Post-Period Mean	2.83
Post-Period Min	2.4
Post-Period Max	3.2
Observations	48

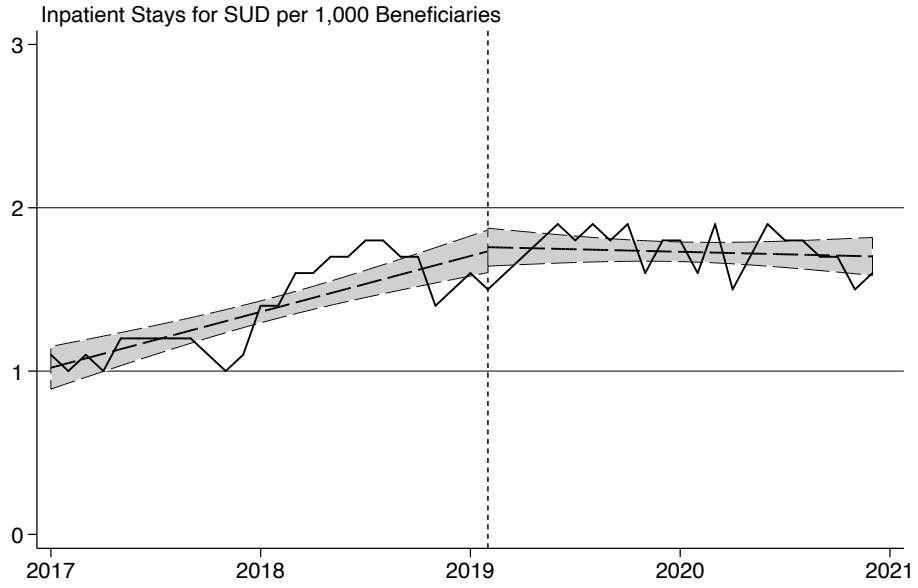
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 2.1
Monitoring Metric: #24, Inpatient Stays for SUD
Description: The number of inpatient stays for SUD per 1,000 beneficiaries in the measurement period.
Primary Driver: Decrease use of medically inappropriate care and reduce reliance on emergency department and hospital services for SUD treatment.
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
    - Status: Started 1/30/2019
    - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.



Notes: The numerator is the total number of inpatient stays for SUD during the measurement period. The denominator is the total number of unduplicated Medicaid beneficiaries (in thousands).



Notes: The numerator is the total number of inpatient stays for SUD during the measurement period. The denominator is the total number of unduplicated Medicaid beneficiaries (in thousands).

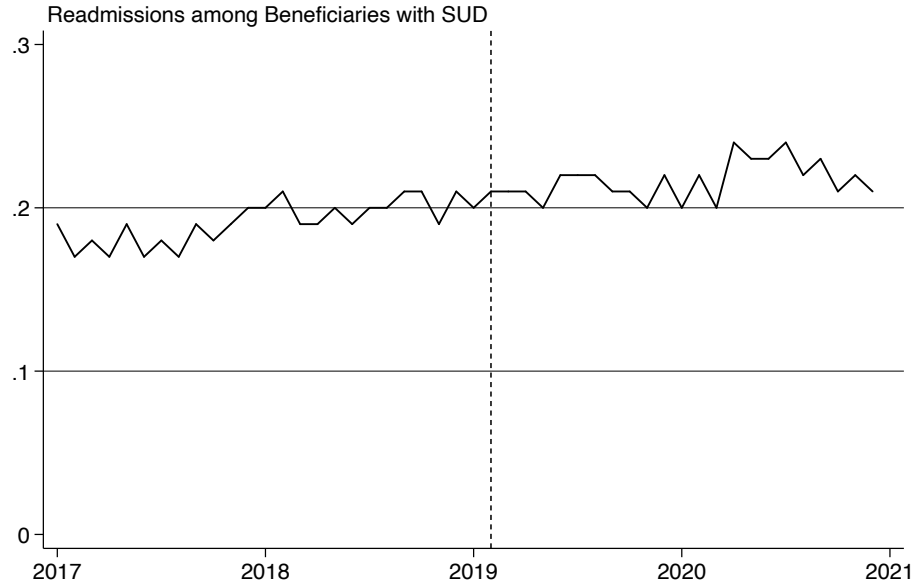
ITS Estimates

Pre-Period Slope	0.031*** (0.006) [0.019, 0.043]
Level Change	-0.014 (0.122) [-0.260, 0.231]
Post-Period Slope	-0.003 (0.006) [-0.015, 0.010]
Slope Change	-0.033*** (0.009) [-0.053, -0.014]
Pre-Period Mean	1.37
Pre-Period Min	1
Pre-Period Max	1.8
Post-Period Mean	1.73
Post-Period Min	1.5
Post-Period Max	1.9
Observations	48

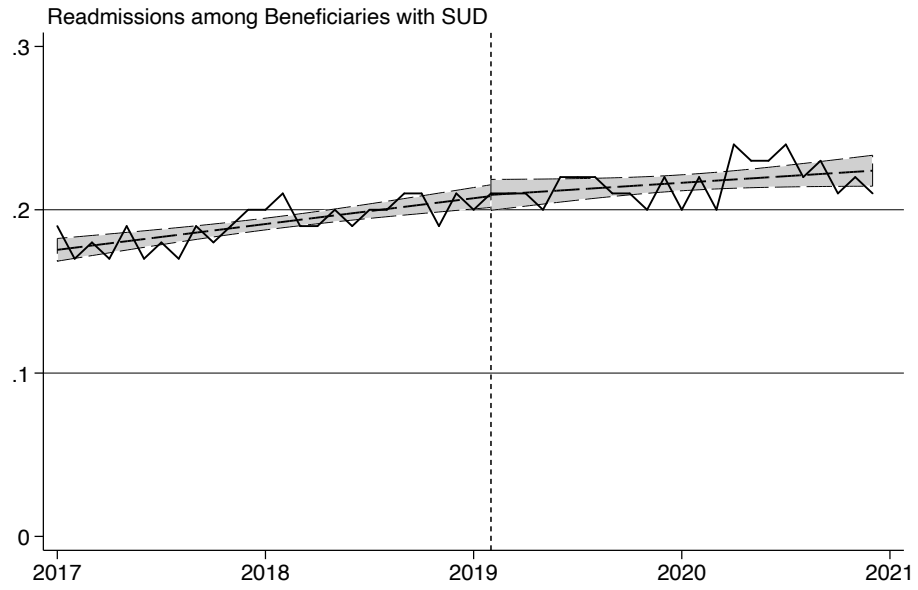
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 2.2
Monitoring Metric: #25, Readmissions among Beneficiaries with SUD
Description: The rate of all-cause readmissions during the measurement period among beneficiaries with SUD.
Primary Driver: Reduce readmission rates for SUD treatment.
Secondary Drivers:

- Require MCOs to update their Specialized Behavioral Health network development and management plan to specifically focus on SUD provider capacity, including MAT.
    - Status: Started 1/30/2019
    - Details: The MCOs were required to resubmit their 2019 Network Development and Management Plan to include information on MAT providers. The Network Development and Management Plans are due on January 30th each year. The reporting template for the 2020 submission will be revised emphasizing that the MCOs are to "specifically focus on SUD provider capacity," in addition to the MAT access that we previously requested.



Notes: The numerator is the total number of 30-day readmissions (at least one acute readmission for any diagnosis within 30 days of the index discharge date). The denominator is the total number of index hospital stays.



Notes: The numerator is the total number of 30-day readmissions (at least one acute readmission for any diagnosis within 30 days of the index discharge date). The denominator is the total number of index hospital stays.

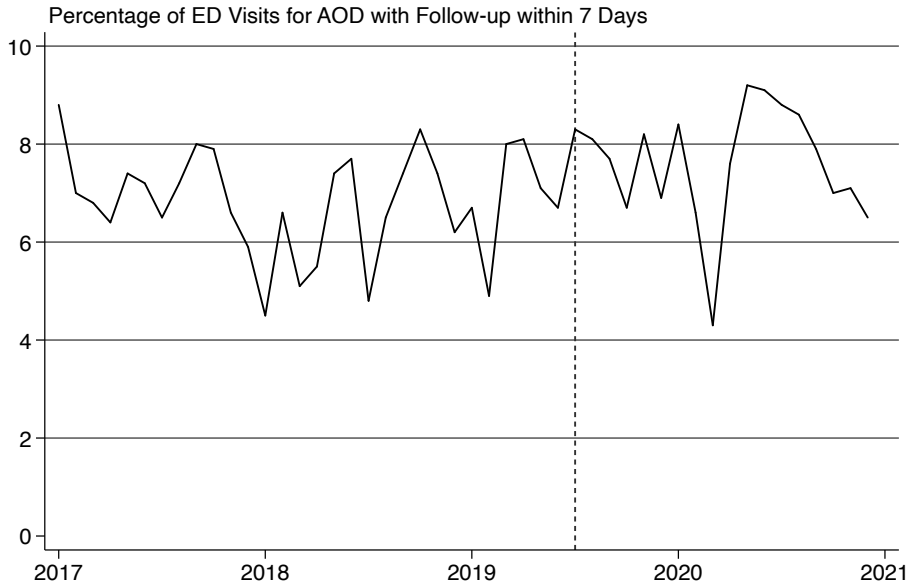
ITS Estimates

Pre-Period Slope	0.0013*** (0.0002) [0.0009, 0.0017]
Level Change	0.0010 (0.0038) [-0.0067, 0.0088]
Post-Period Slope	0.0007* (0.0003) [-0.0000, 0.0014]
Slope Change	-0.0006 (0.0004) [-0.0014, 0.0001]
Pre-Period Mean	0.191
Pre-Period Min	0.17
Pre-Period Max	0.21
Post-Period Mean	0.217
Post-Period Min	0.20
Post-Period Max	0.24
Observations	48

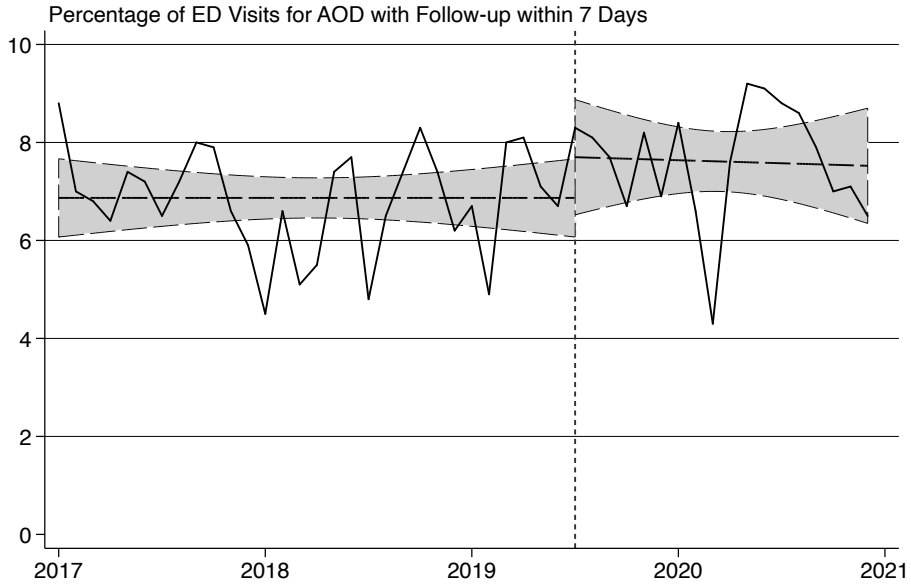
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.1
Monitoring Metric: #17(1), Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence
Description: Percentage of ED visits for beneficiaries age 18 and older with a principal diagnosis of AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 7 days of the ED visit.
Primary Driver: Increase initiation of follow-up after discharge from the emergency department or hospital for SUD.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number of follow-up visits with any practitioner, with a principal diagnosis of AOD abuse or dependence within 7 days after the ED visit (8 total days), including visits that occur on the date of the ED visit. The denominator is the total number of index ED visits.



Notes: The numerator is the total number of follow-up visits with any practitioner, with a principal diagnosis of AOD abuse or dependence within 7 days after the ED visit (8 total days), including visits that occur on the date of the ED visit. The denominator is the total number of index ED visits.

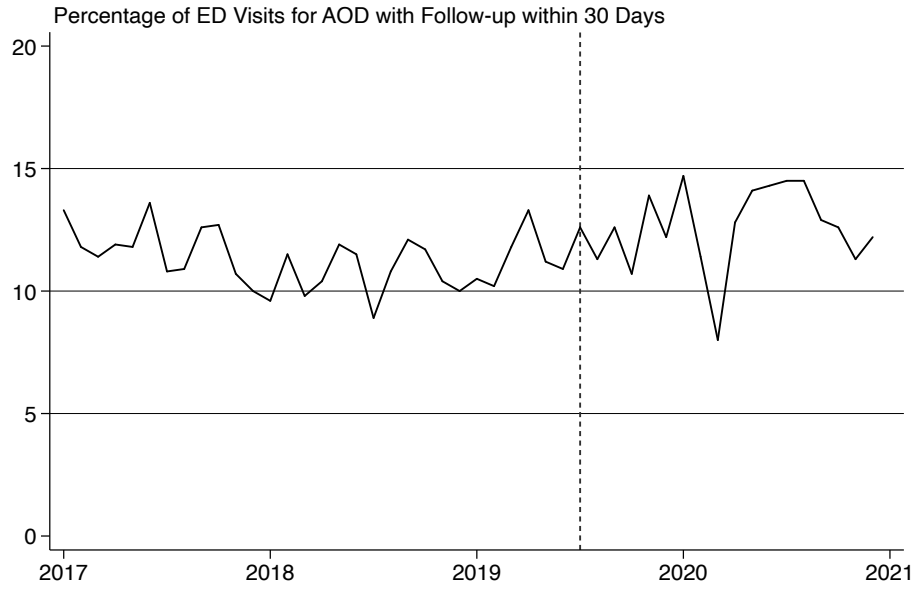
ITS Estimates

Pre-Period Slope	-0.010 (0.019) [-0.049, 0.029]
Level Change	1.032** (0.479) [0.066, 1.998]
Post-Period Slope	-0.010 (0.043) [-0.096, 0.076]
Slope Change	-0.000 (0.048)
Pre-Period Mean	6.82
Pre-Period Min	4.5
Pre-Period Max	8.8
Post-Period Mean	7.61
Post-Period Min	4.3
Post-Period Max	9.2
Observations	48

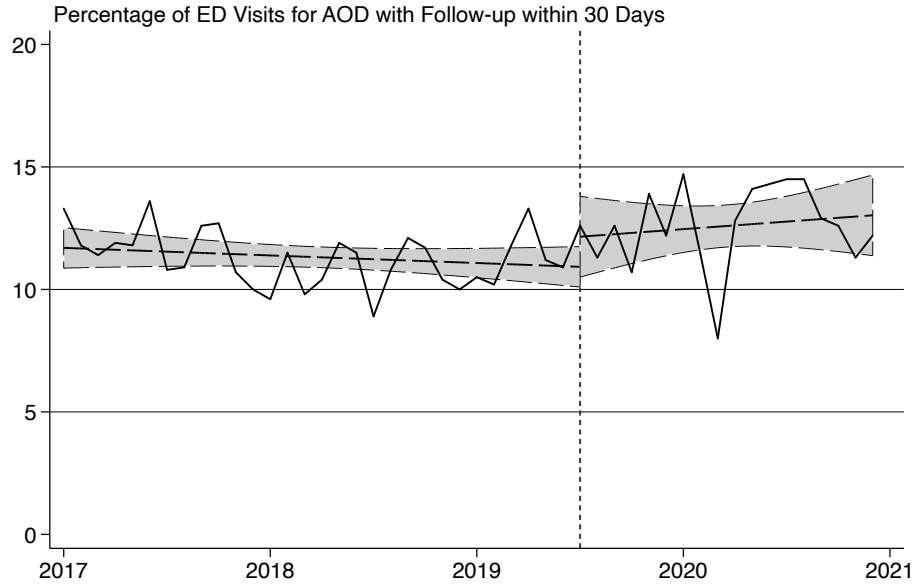
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.1
Monitoring Metric: #17(1), Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence
Description: Percentage of ED visits for beneficiaries age 18 and older with a principal diagnosis of AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit.
Primary Driver: Increase initiation of follow-up after discharge from the emergency department or hospital for SUD.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number of follow-up visits with any practitioner, with a principal diagnosis of AOD abuse or dependence within 30 days after the ED visit (31 total days), including visits that occur on the date of the ED visit. The denominator is the total number of index ED visits.



Notes: The numerator is the total number of follow-up visits with any practitioner, with a principal diagnosis of AOD abuse or dependence within 30 days after the ED visit (31 total days), including visits that occur on the date of the ED visit. The denominator is the total number of index ED visits.

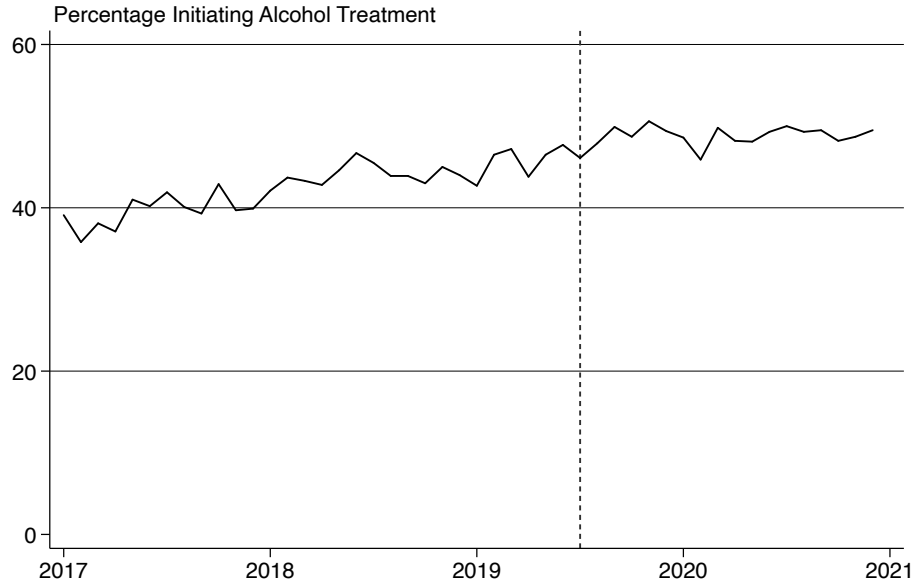
ITS Estimates

Pre-Period Slope	-0.037 (0.024) [-0.086, 0.011]
Level Change	1.465** (0.612) [0.232, 2.697]
Post-Period Slope	0.051 (0.057) [-0.063, 0.166]
Slope Change	0.089 (0.063) [-0.037, 0.214]
Pre-Period Mean	11.27
Pre-Period Min	8.9
Pre-Period Max	13.6
Post-Period Mean	12.59
Post-Period Min	8
Post-Period Max	14.7
Observations	48

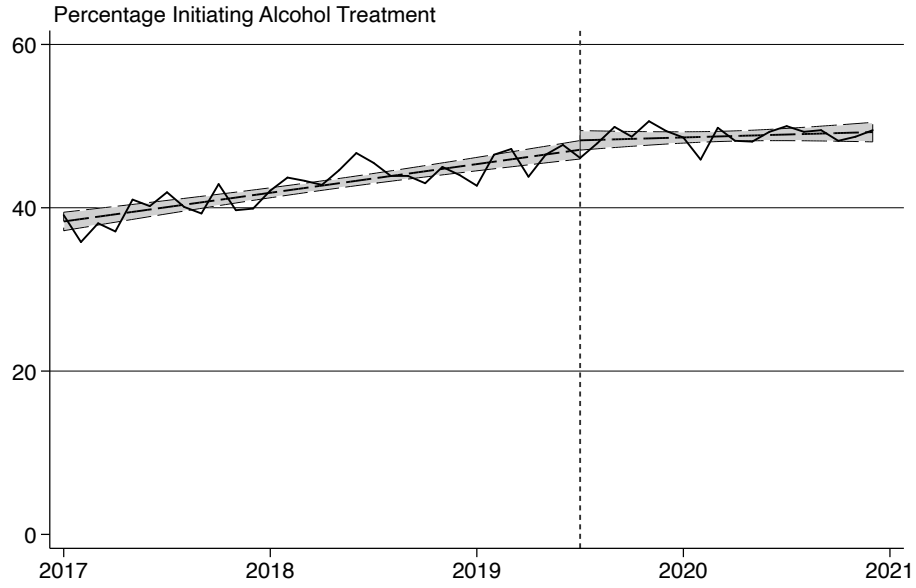
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment within 14 days of the diagnosis.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index visits for alcohol abuse or dependence.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index visits for alcohol abuse or dependence.

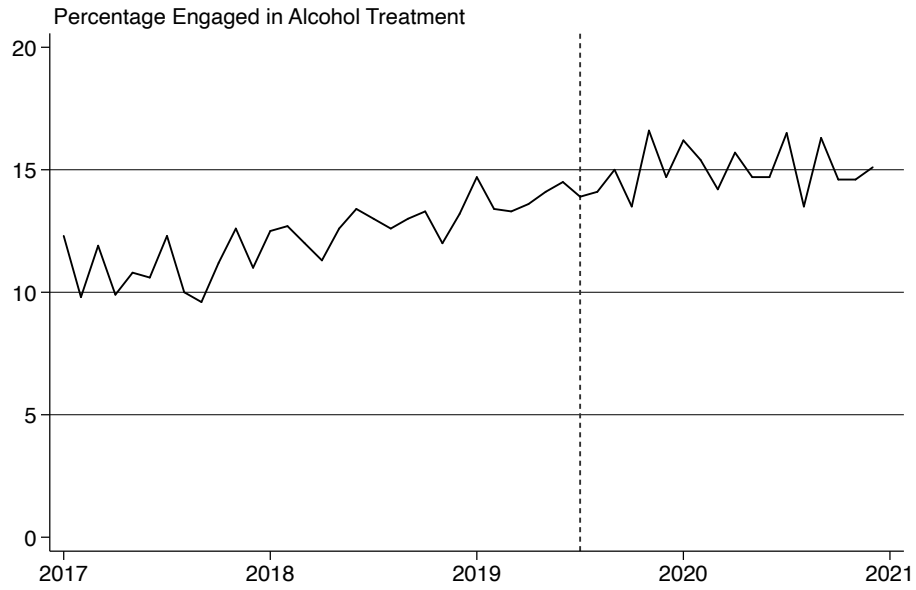
ITS Estimates

Pre-Period Slope	0.300*** (0.030) [0.238, 0.361]
Level Change	1.013 (0.866) [-0.733, 2.759]
Post-Period Slope	0.059 (0.053) [-0.048, 0.166]
Slope Change	-0.240*** (0.062) [-0.364, -0.116]
Pre-Period Mean	42.6
Pre-Period Min	35.8
Pre-Period Max	47.7
Post-Period Mean	48.76
Post-Period Min	45.9
Post-Period Max	50.6
Observations	48

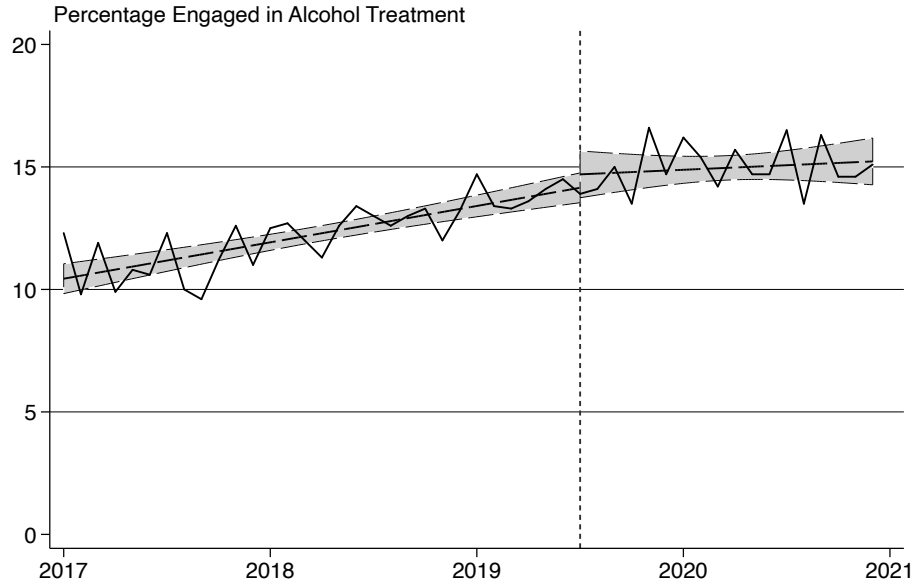
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index visits for alcohol abuse or dependence.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of alcohol abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index visits for alcohol abuse or dependence.

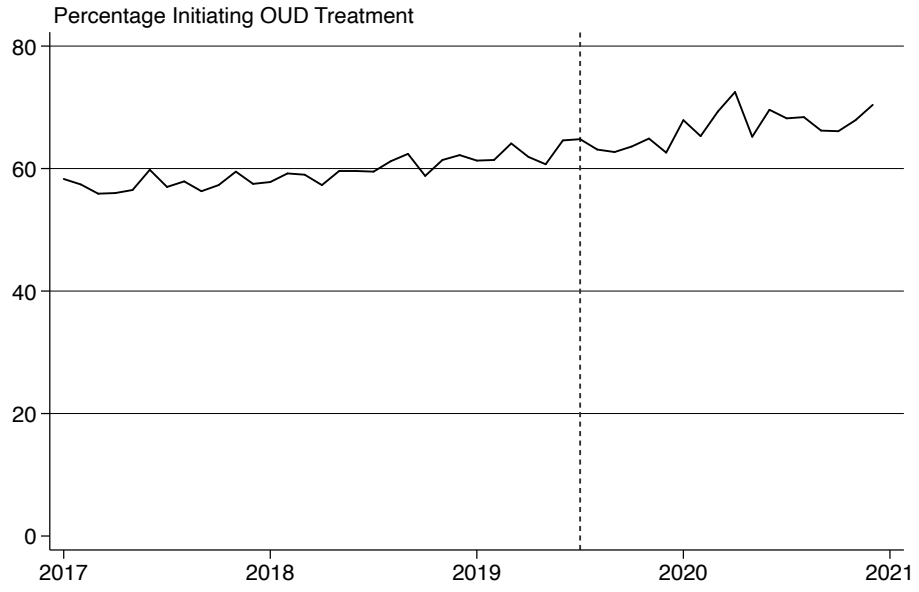
ITS Estimates

Pre-Period Slope	0.125*** (0.015) [0.095, 0.155]
Level Change	0.513 (0.464) [-0.423, 1.449]
Post-Period Slope	0.031 (0.034) [-0.037, 0.099]
Slope Change	-0.094** (0.036) [-0.166, -0.023]
Pre-Period Mean	12.24
Pre-Period Min	9.6
Pre-Period Max	14.7
Post-Period Mean	14.96
Post-Period Min	13.5
Post-Period Max	16.6
Observations	48

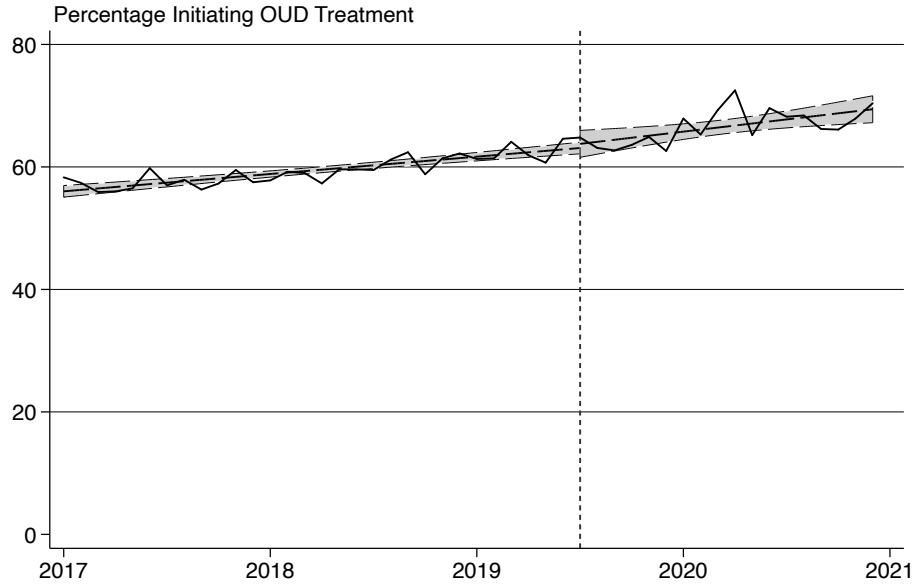
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated OUD treatment within 14 days of the diagnosis.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated OUD treatment within 14 days of the diagnosis. The denominator is the total number of index OUD visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated OUD treatment within 14 days of the diagnosis. The denominator is the total number of index OUD visits.

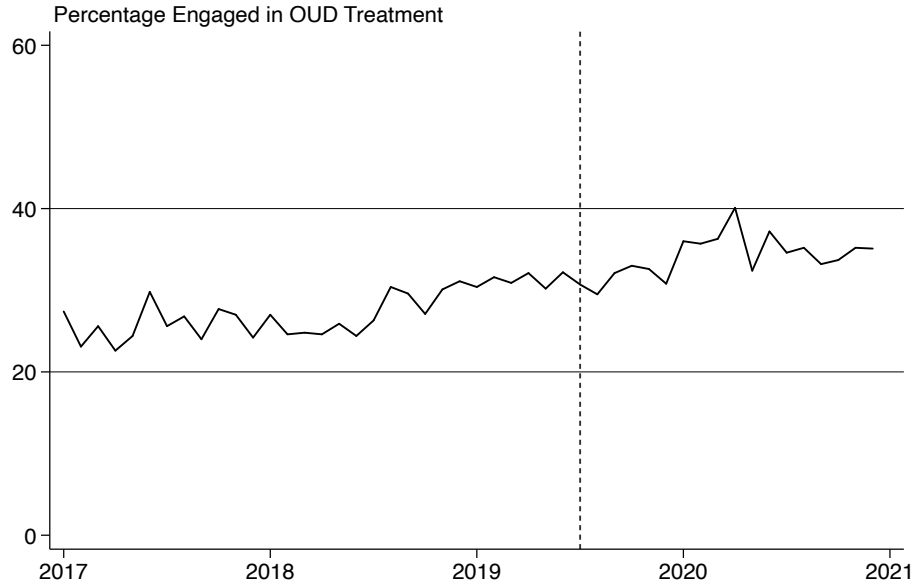
ITS Estimates

Pre-Period Slope	0.224*** (0.022) [0.179, 0.269]
Level Change	0.917 (0.930) [-0.958, 2.792]
Post-Period Slope	0.332*** (0.081) [0.169, 0.495]
Slope Change	0.108 (0.083) [-0.059, 0.276]
Pre-Period Mean	59.38
Pre-Period Min	55.9
Pre-Period Max	64.6
Post-Period Mean	66.59
Post-Period Min	62.6
Post-Period Max	72.5
Observations	48

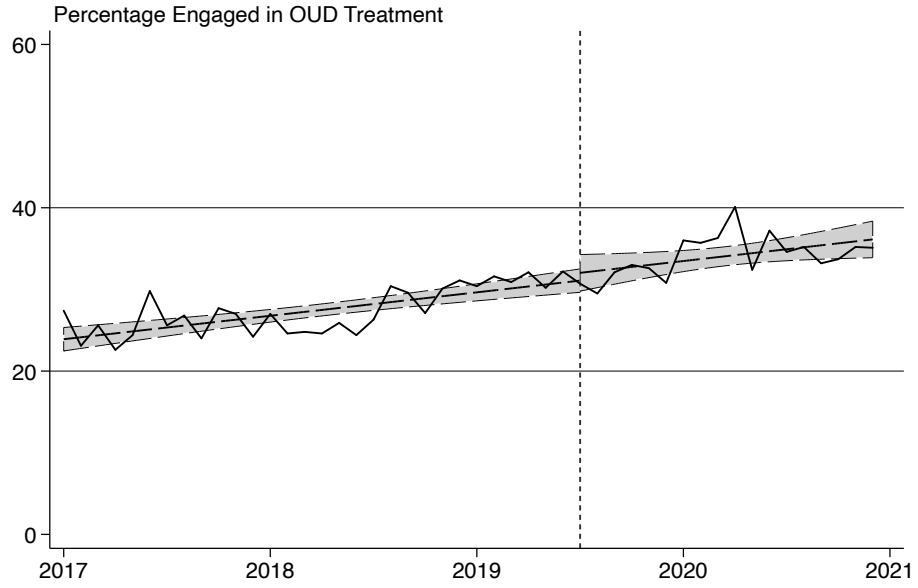
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated treatment and who were engaged in ongoing OUD treatment within 34 days of the initiation visit.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated treatment and who were engaged in ongoing OUD treatment within 34 days of the initiation visit. The denominator is the total number of index OUD visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of opioid abuse or dependence who initiated treatment and who were engaged in ongoing OUD treatment within 34 days of the initiation visit. The denominator is the total number of index OUD visits.

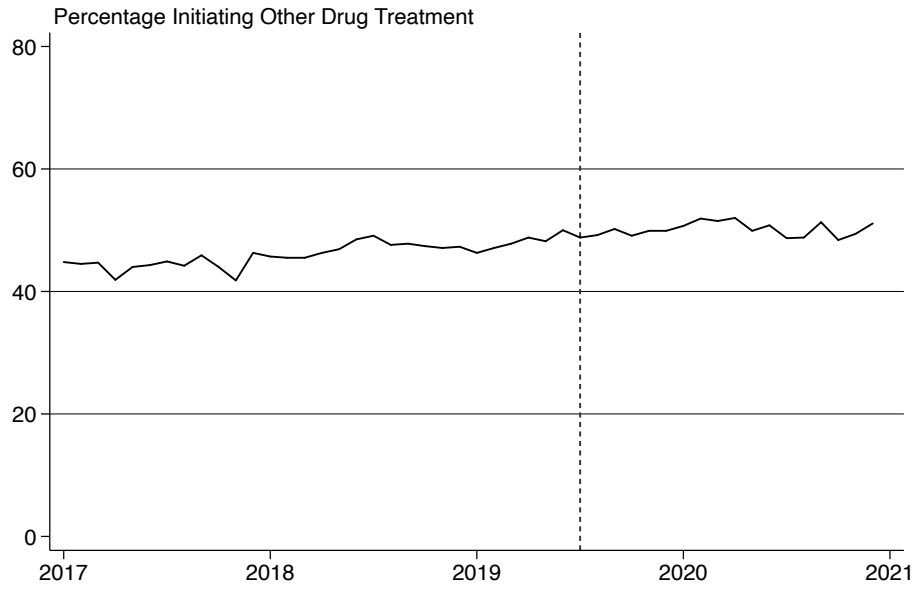
ITS Estimates

Pre-Period Slope	0.242*** (0.039) [0.163, 0.321]
Level Change	0.900 (1.395) [-1.911, 3.712]
Post-Period Slope	0.241** (0.099) [0.042, 0.439]
Slope Change	-0.001 (0.103) [-0.208, 0.206]
Pre-Period Mean	27.38
Pre-Period Min	22.6
Pre-Period Max	32.2
Post-Period Mean	34.08
Post-Period Min	29.5
Post-Period Max	40.1
Observations	48

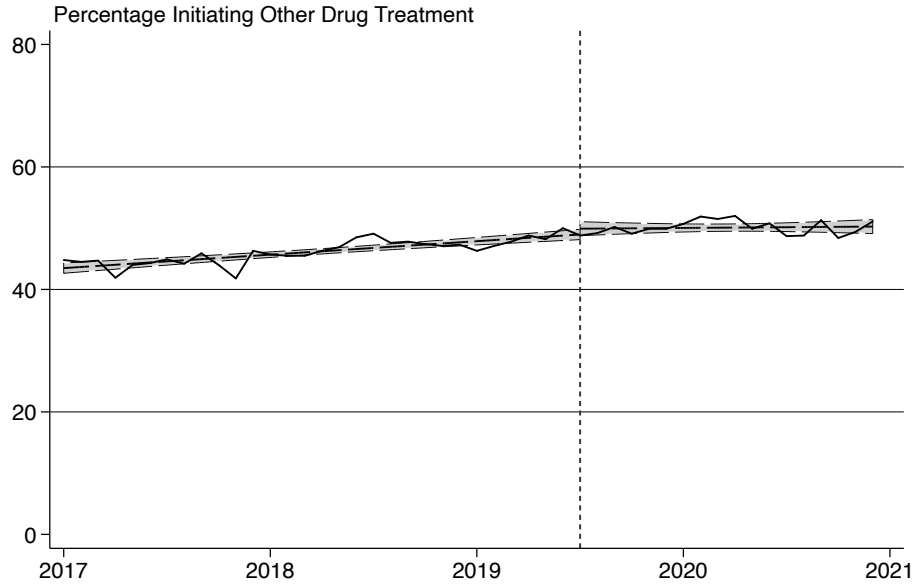
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment within 14 days of the diagnosis.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index other drug visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index other drug visits.

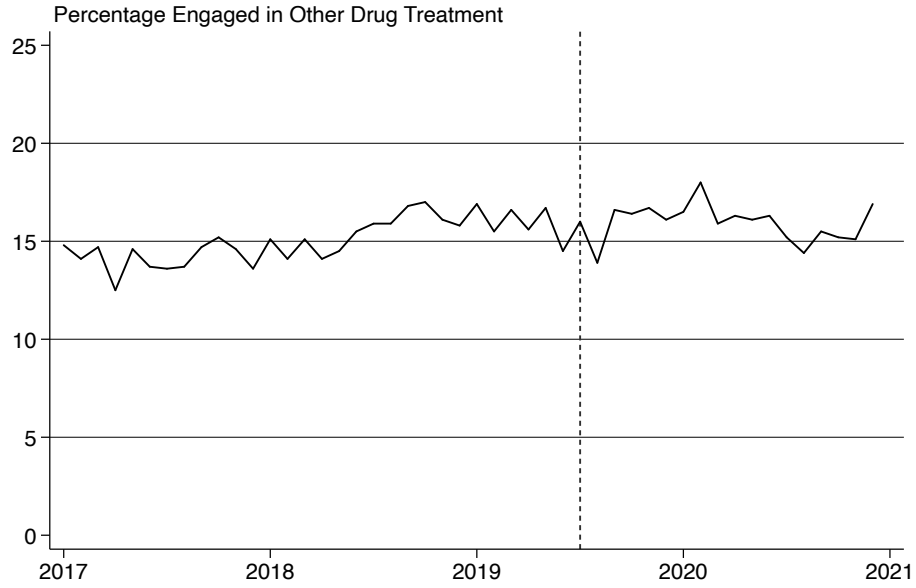
ITS Estimates

Pre-Period Slope	0.184*** (0.024) [0.135, 0.233]
Level Change	0.920 (0.768) [-0.628, 2.468]
Post-Period Slope	0.020 (0.048) [-0.076, 0.116]
Slope Change	-0.164*** (0.051) [-0.267, -0.062]
Pre-Period Mean	46.14
Pre-Period Min	41.8
Pre-Period Max	50
Post-Period Mean	50.09
Post-Period Min	48.4
Post-Period Max	52
Observations	48

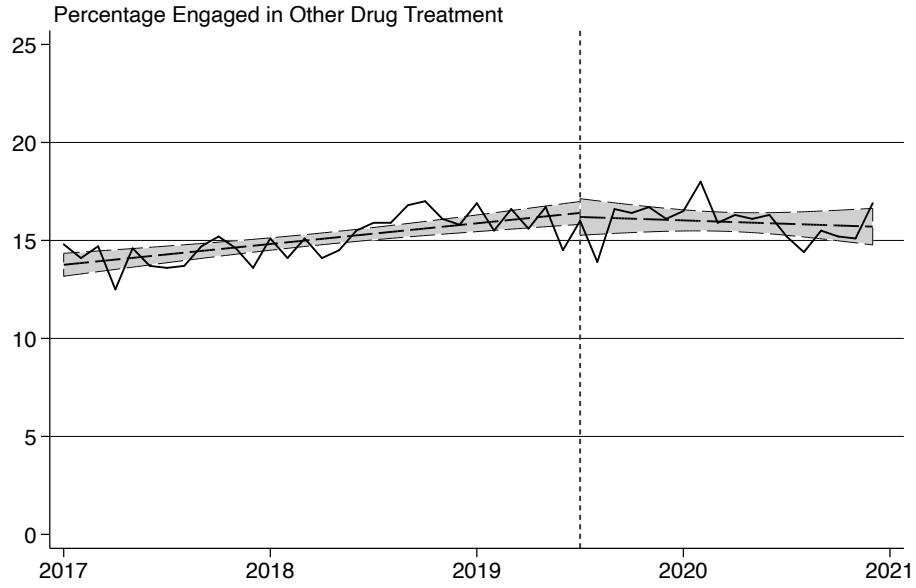
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index other drug visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of other drug abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index other drug visits.

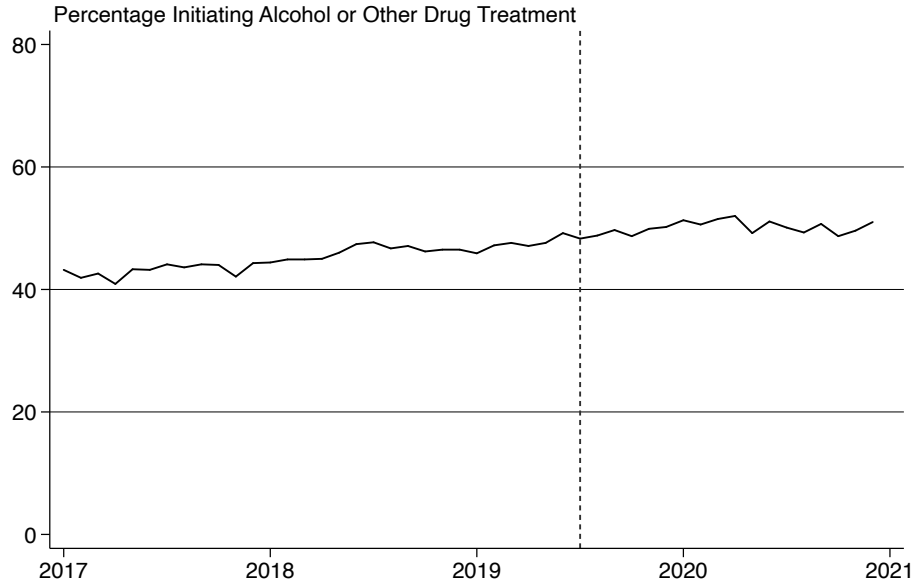
ITS Estimates

Pre-Period Slope	0.091*** (0.019) [0.052, 0.130]
Level Change	-0.264 (0.530) [-1.332, 0.805]
Post-Period Slope	-0.029 (0.046) [-0.121, 0.063]
Slope Change	-0.120** (0.054) [-0.229, -0.011]
Pre-Period Mean	15.05
Pre-Period Min	12.5
Pre-Period Max	17
Post-Period Mean	15.95
Post-Period Min	13.9
Post-Period Max	18
Observations	48

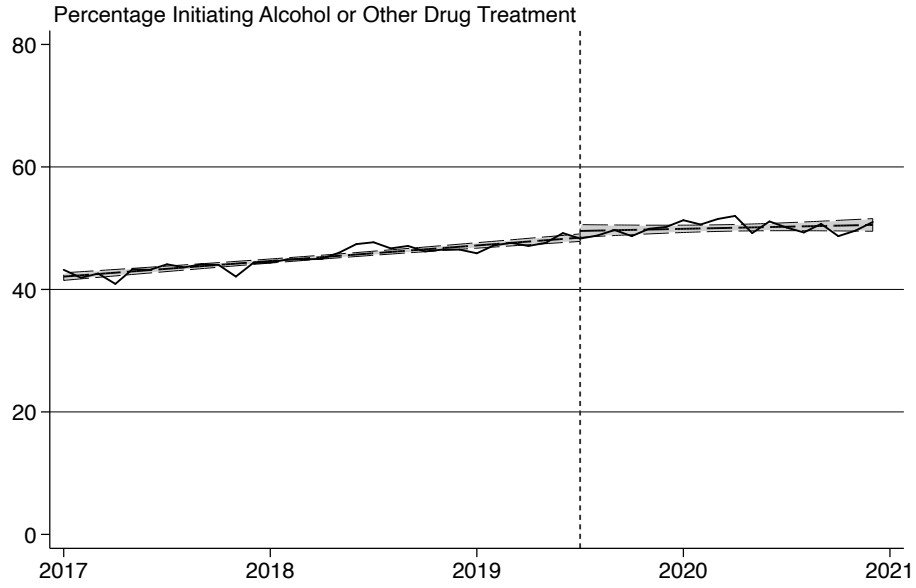
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of alcohol or other drug abuse or dependence (AOD) who initiated treatment within 14 days of the diagnosis.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of AOD abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index AOD visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of AOD abuse or dependence who initiated treatment within 14 days of the diagnosis. The denominator is the total number of index AOD visits.

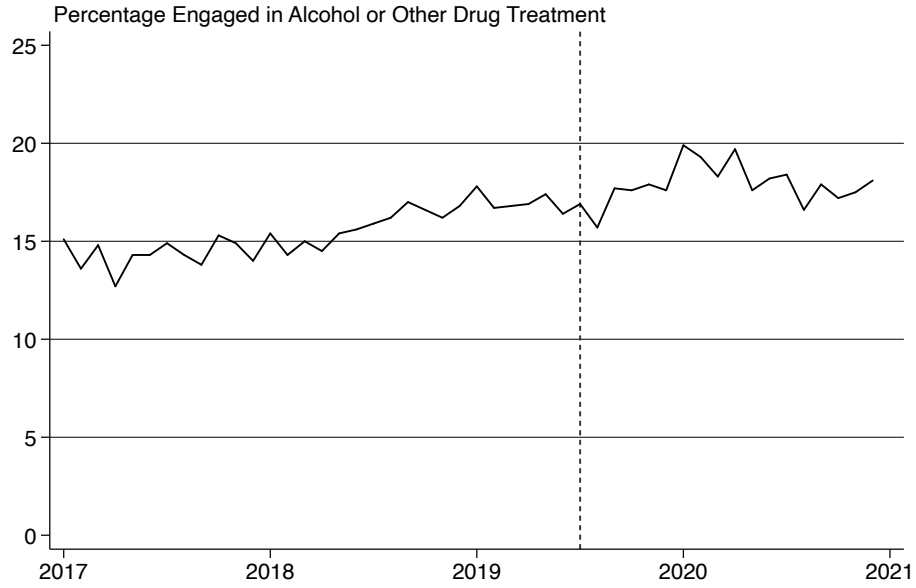
ITS Estimates

Pre-Period Slope	0.213*** (0.017) [0.179, 0.246]
Level Change	1.073 (0.719) [-0.375, 2.522]
Post-Period Slope	0.058 (0.052) [-0.048, 0.164]
Slope Change	-0.155*** (0.053) [-0.263, -0.047]
Pre-Period Mean	45.17
Pre-Period Min	40.9
Pre-Period Max	49.2
Post-Period Mean	50.04
Post-Period Min	48.3
Post-Period Max	52
Observations	48

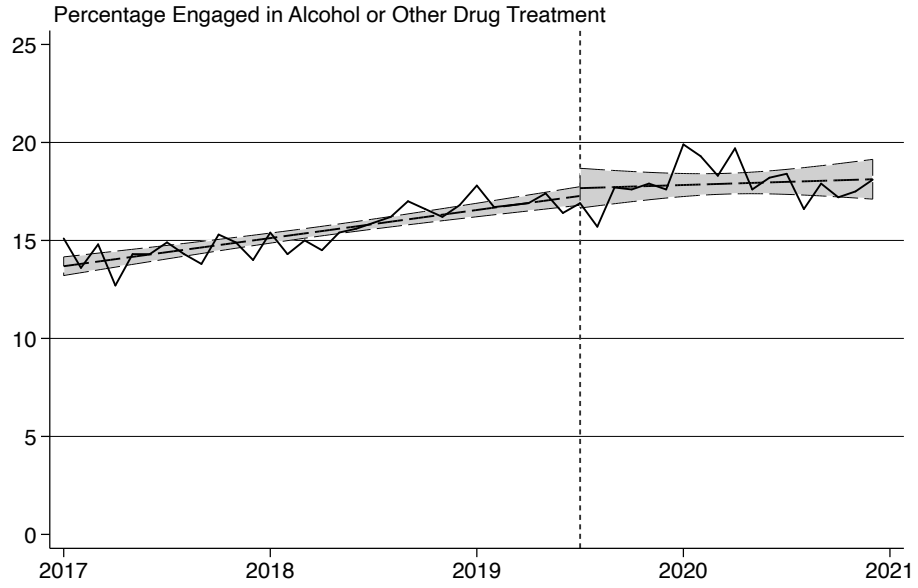
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 3.2
Monitoring Metric: #15, Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD)
Description: Percentage of beneficiaries age 18 and older with a new episode of alcohol or other drug abuse or dependence (AOD) who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit.
Primary Driver: Increase adherence to and retention in treatment.
Secondary Drivers:

- Continued monitoring of MCO compliance with existing contract requirements related to care transition activities.
    - Status: Started 6/30/2019
    - Details: SUD specific audit tool elements were added to the MCO monitoring tool for the second quarter reviews in 2019. SUD providers are audited using both the general BH elements and the SUD specific elements. These reports are due 30 days after the end of the quarter being reviewed. "Continuity and Coordination of Care" and discharge planning are tracked components under table 3 of the TRR (Treatment Record Review) tab of the 358 Report. The 358 report template is on the LA – Medicaid website. LDH monitors a report generated by the MCOs who are contractually required to ensure continuity of care. The basis of the report is MCO utilization of the updated audit tool which contains SUD level of care specific elements including discharge planning/transfer planning and referrals.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of AOD abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index AOD visits.



Notes: The numerator is the total number beneficiaries age 18 and older with a new episode of AOD abuse or dependence who initiated treatment and who were engaged in ongoing treatment within 34 days of the initiation visit. The denominator is the total number of index AOD visits.

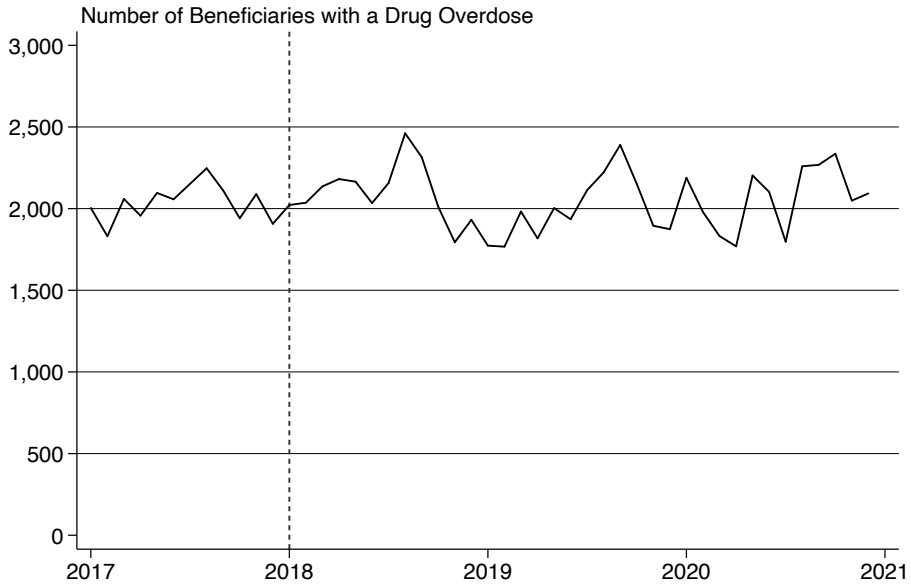
ITS Estimates

Pre-Period Slope	0.122*** (0.013) [0.095, 0.149]
Level Change	0.345 (0.659) [-0.983, 1.673]
Post-Period Slope	0.027 (0.055) [-0.084, 0.138]
Slope Change	-0.095 (0.059) [-0.214, 0.023]
Pre-Period Mean	15.43
Pre-Period Min	12.7
Pre-Period Max	17.8
Post-Period Mean	17.89
Post-Period Min	15.7
Post-Period Max	19.9
Observations	48

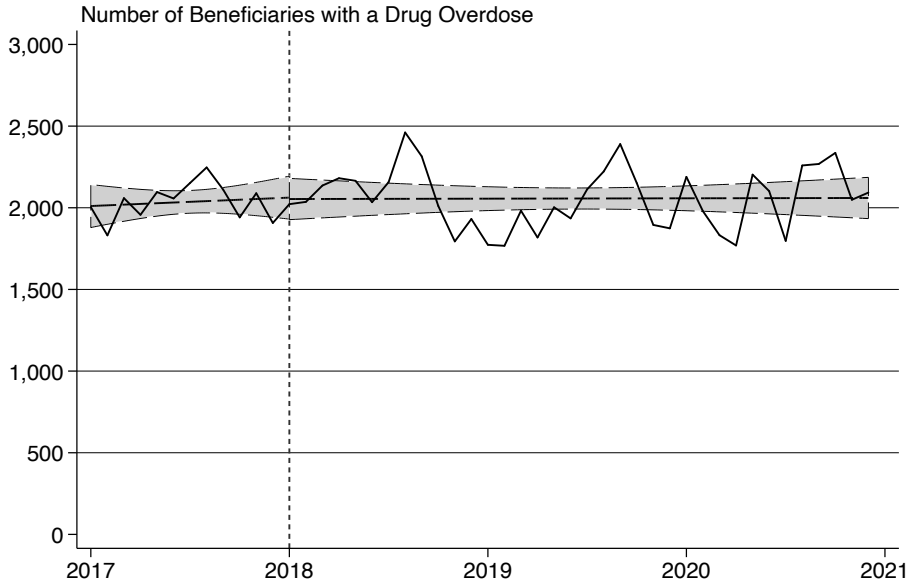
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 4.1
Monitoring Metric: N/A
Description: The number of drug overdoses among Medicaid beneficiaries. Drug overdose is defined using the measure proposed by the National Council of State and Territorial Epidemiologists and the National Center for Injury Prevention and Control and includes diagnosis codes in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded.
Primary Driver: Reduce instances of drug overdose and overdose deaths.
Secondary Drivers:

- Increased availability of Naloxone.
    - Status: Ongoing
    - Details: The secretary of LDH signed a standing order for dispensing Naloxone without a prescription on 1/23/2017. In addition to the standing order, there are grants in place funding distribution of naloxone. These grants include MAT-PDOA, STR, and LASOR.



Notes: The total number of Medicaid beneficiaries with a diagnosis code in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded.



Notes: The total number of Medicaid beneficiaries with a diagnosis code in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded.

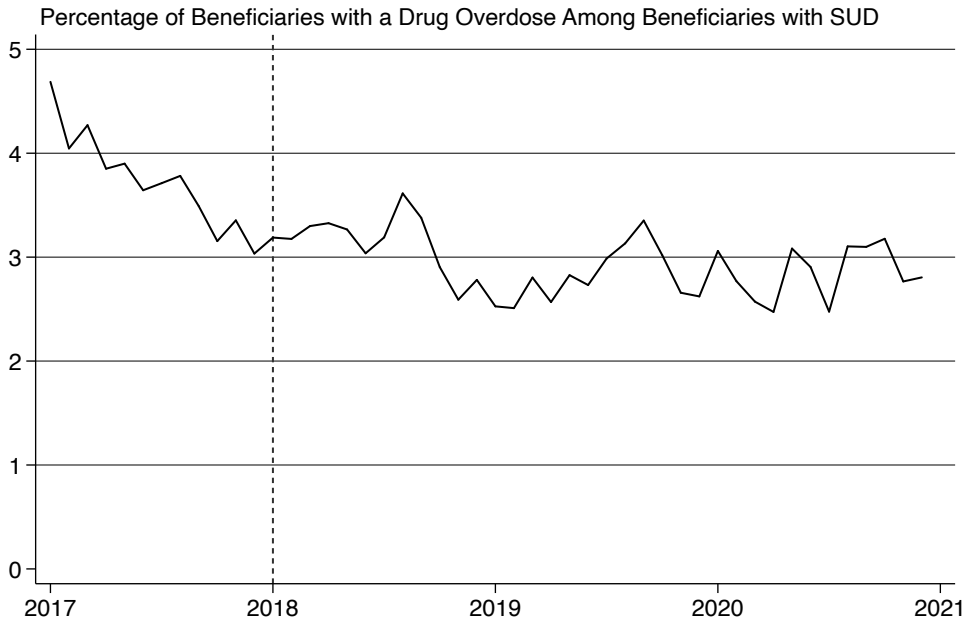
ITS Estimates

Pre-Period Slope	6.11 (9.42) [-12.87, 25.09]
Level Change	-23.76 (111.22) [-247.91, 200.39]
Post-Period Slope	0.183 (3.39) [-6.65, 7.02]
Slope Change	-5.93 (10.06) [-26.20, 14.34]
Pre-Period Mean	2,037.58
Pre-Period Min	1,831
Pre-Period Max	2,247
Post-Period Mean	2,056.72
Post-Period Min	1,767
Post-Period Max	2,461
Observations	48

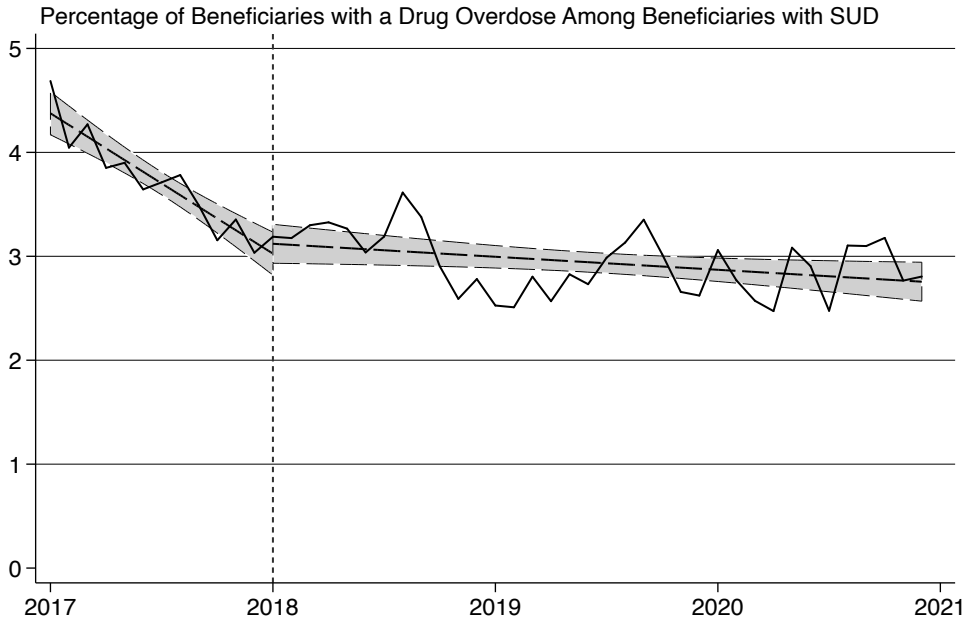
Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

Evaluation Demonstration Goal 4.1
Monitoring Metric: N/A
Description: The percentage of Medicaid beneficiaries with a drug overdose among Medicaid beneficiaries with an SUD diagnosis. Drug overdose is defined using the measure proposed by the National Council of State and Territorial Epidemiologists and the National Center for Injury Prevention and Control and includes diagnosis codes in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded.
Primary Driver: Reduce instances of drug overdose and overdose deaths.
Secondary Drivers:

- Increased availability of Naloxone.
    - Status: Ongoing
    - Details: The secretary of LDH signed a standing order for dispensing Naloxone without a prescription on 1/23/2017. In addition to the standing order, there are grants in place funding distribution of naloxone. These grants include MAT-PDOA, STR, and LASOR.



Notes: The numerator is the total number of Medicaid beneficiaries with a diagnosis code in any field starting with T36 through T50, with unintentional, intentional harm, assault, or undetermined intent, and initial, subsequent, or missing encounter type. Instances of adverse effects, underdosing, and sequelae are excluded. The denominator is the number of unduplicated Medicaid beneficiaries enrolled in a reporting month/year with a paid/accepted claim for date of service in reporting month/year that uses an SUD diagnosis code as the primary diagnosis (in thousands).



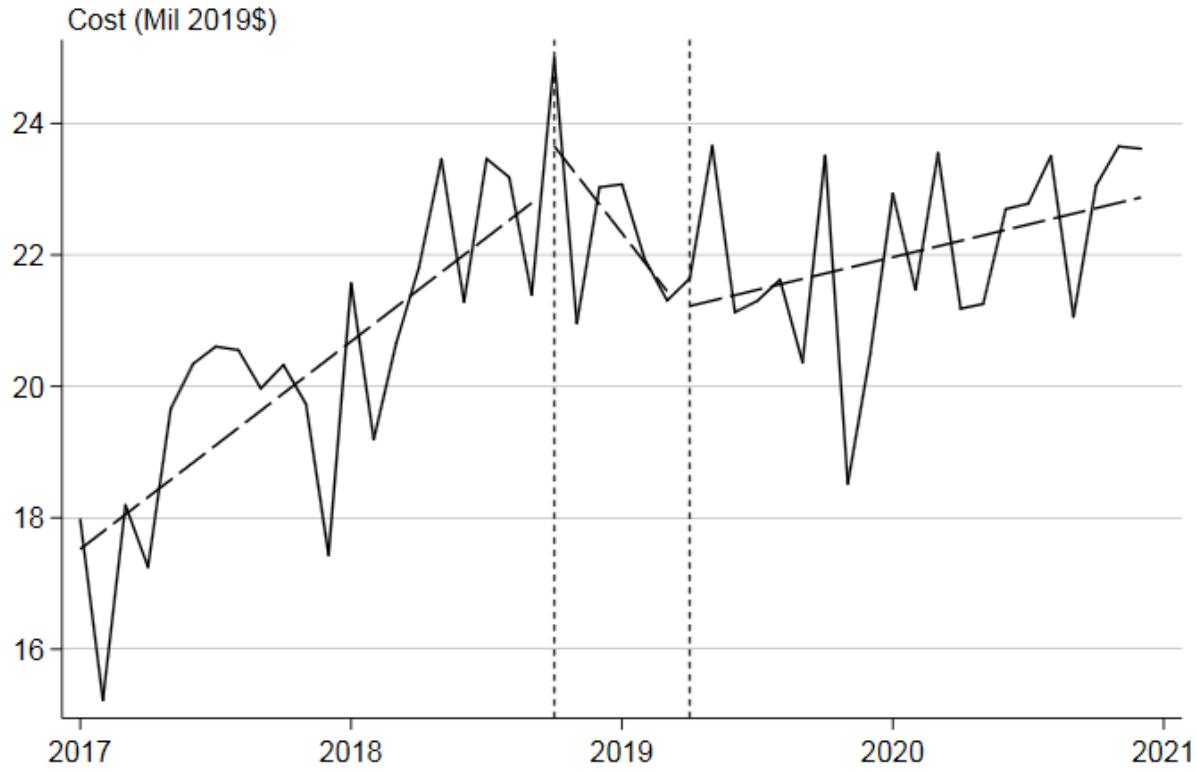
ITS Estimates

Pre-Period Slope	-0.120*** (0.009) [-0.139, -0.101]
Level Change	0.156 (0.140) [-0.125, 0.438]
Post-Period Slope	-0.010* (0.005) [-0.021, 0.000]
Slope Change	0.109*** (0.011) [0.088, 0.131]
Pre-Period Mean	3.74
Pre-Period Min	3.03
Pre-Period Max	4.69
Post-Period Mean	2.94
Post-Period Min	2.47
Post-Period Max	3.61
Observations	48

Notes: Standard errors are in parentheses and 95% confidence intervals are in brackets. *p<0.10, **p<0.05, ***p<0.01

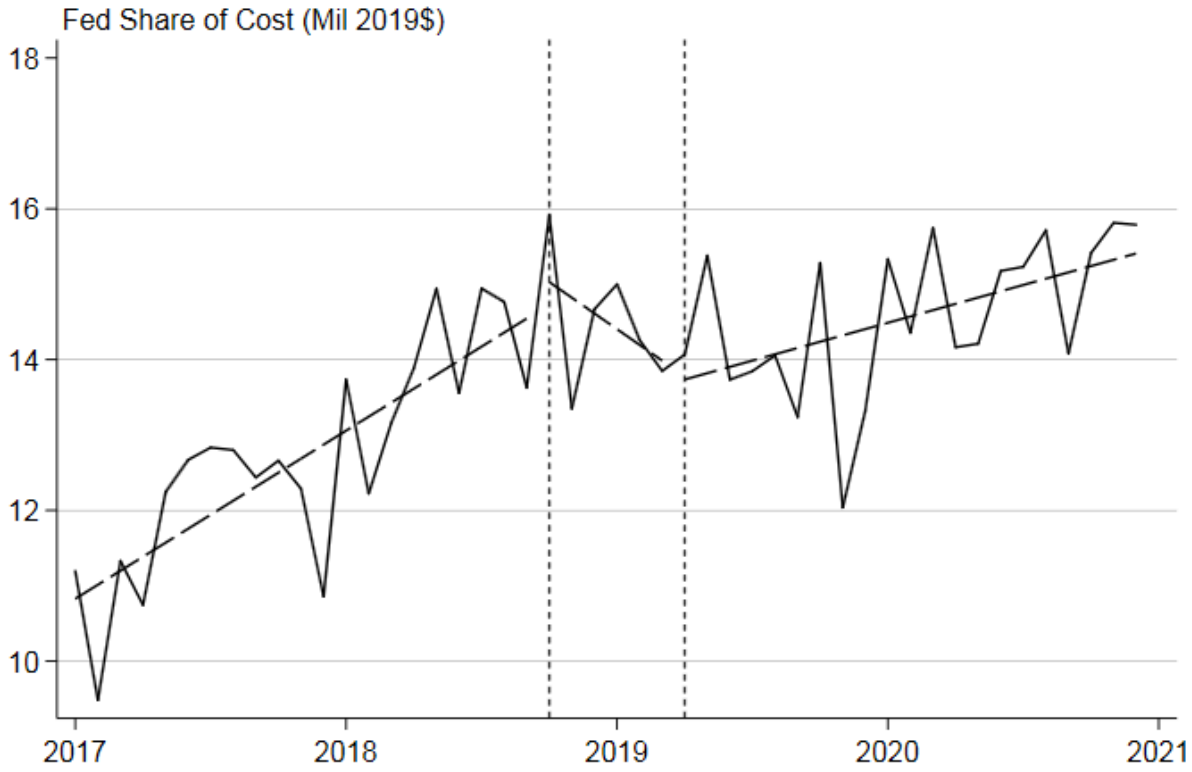
Required Evaluation Topic: Demonstrate patterns and trends in Medicaid costs associated with SUD 1115 demonstration

Total Cost Louisiana Substance Use Disorder Waiver – Interrupted Time Series



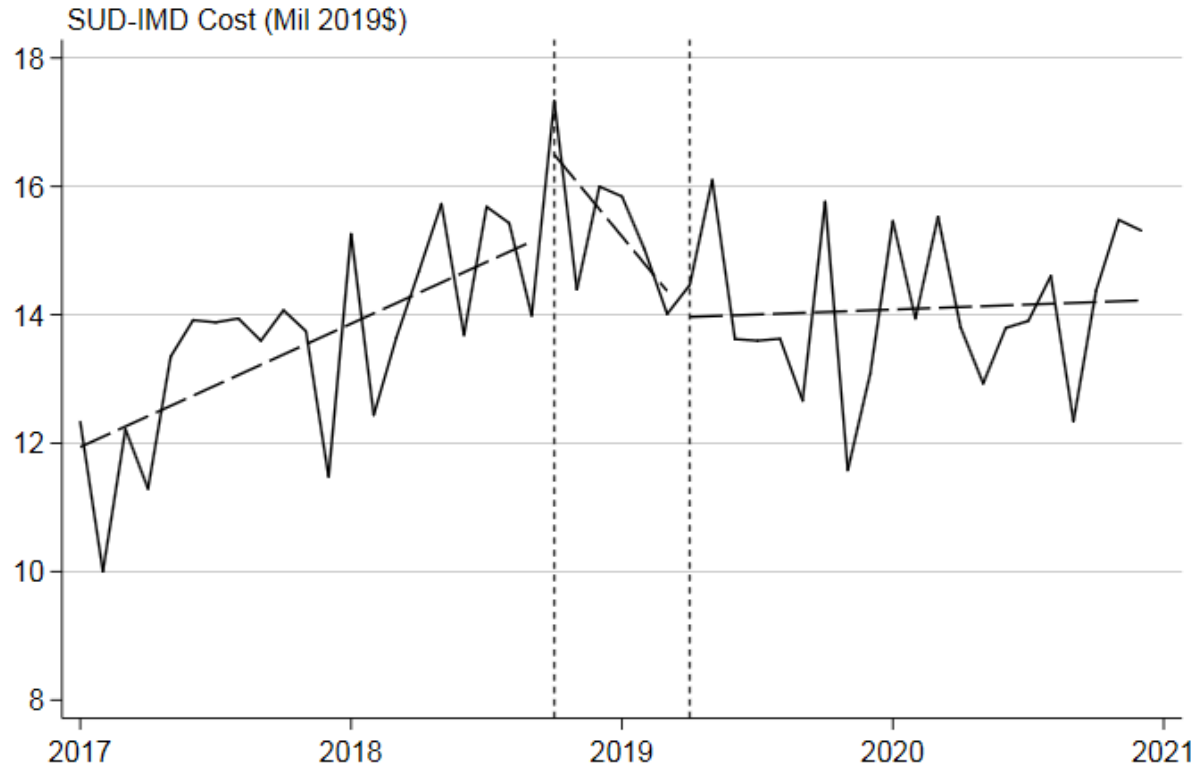
Definition: Total cost consists of waiver administration costs, Emergency Department visits, stays in an Institution for Mental Disease, treatment costs by American Society of Addiction Medicine Level, and medication assisted therapy costs. Data source: Louisiana Department of Health time use survey, Louisiana Medicaid claims, Louisiana Medicaid Fee Schedule, Federal Supply Schedule.

Federal Share of Louisiana Substance Use Disorder Waiver Cost – Interrupted Time Series



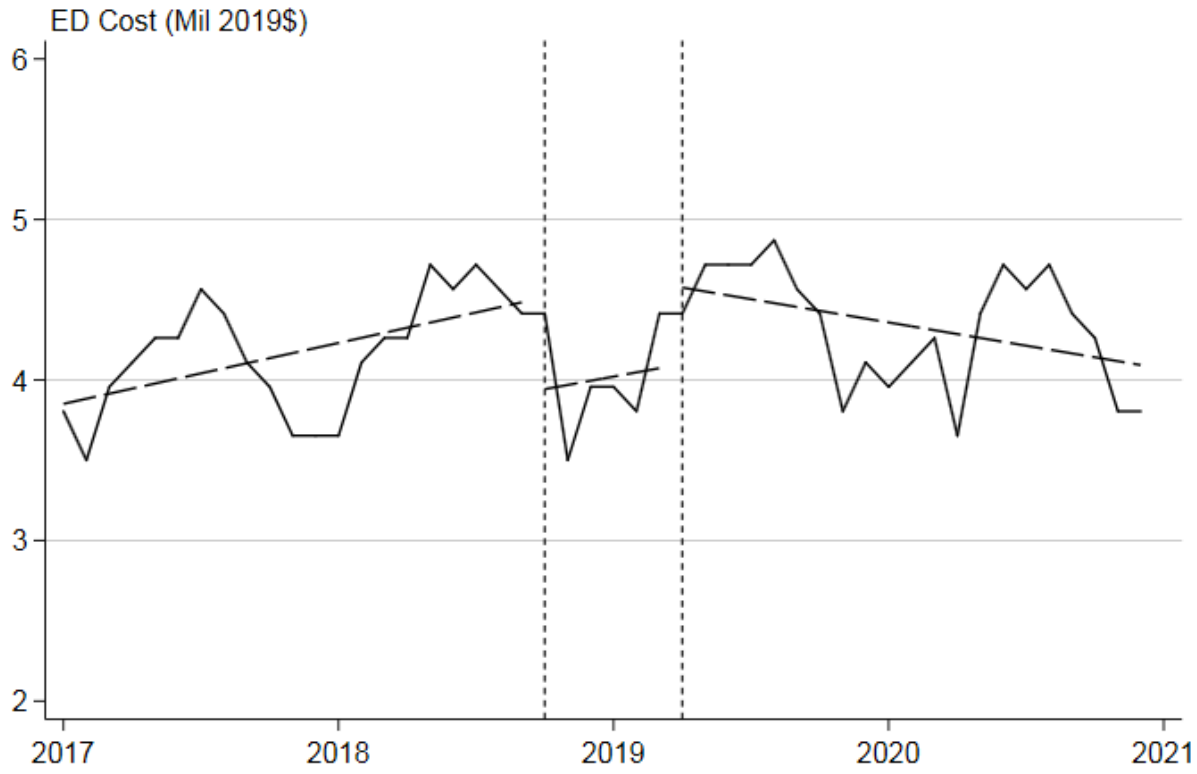
Definition: Total cost multiplied by annual Federal Medical Assistance Percentage (FMAP) for Louisiana. Data source: Louisiana Department of Health time use survey, Louisiana Medicaid claims, Louisiana Medicaid Fee Schedule, Federal Supply Schedule, Kaiser Family Foundation.

Cost of Medicaid Beneficiaries Treated in an Institution for Mental Diseases – Interrupted Time Series



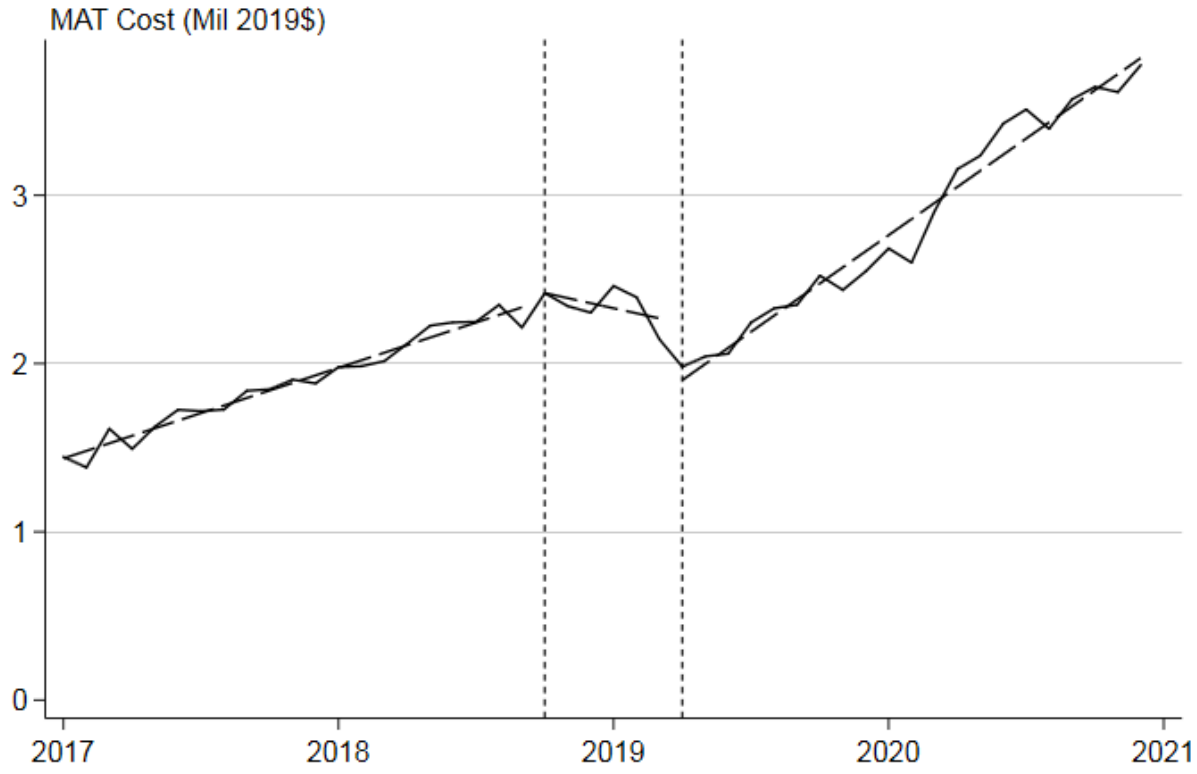
Definition: The product of the number of beneficiaries that stay in an IMD, the average length of stay, and daily cost. Data source: Louisiana Medicaid claims, Louisiana Medicaid Fee Schedule.

Cost of Medicaid Beneficiaries' Emergency Department Visits – Interrupted Time Series



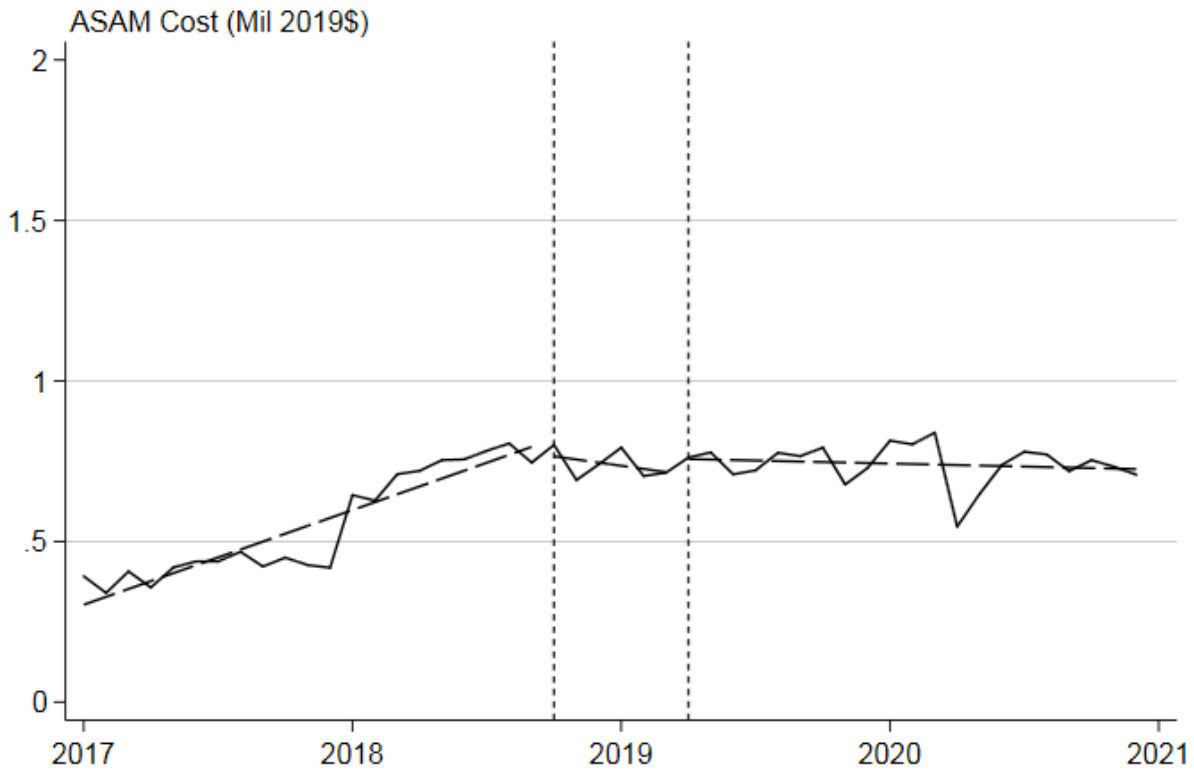
Definition: The product of the number of beneficiaries that visit an ED and cost. Data source: Louisiana Medicaid claims, Louisiana Medicaid Fee Schedule.

Cost of Medication-Assisted Treatment– Interrupted Time Series



Definition: The product of the number of beneficiaries that use MAT, duration of treatment, and daily cost. Data source: Louisiana Medicaid claims, Federal Supply Schedule.

Cost of ASAM Care – Interrupted Time Series



Definition: The product of each level of care and cost for that level of care. Data source: Louisiana Medicaid claims, Louisiana Medicaid Fee Schedule.

Interrupted Time Series Estimates of Cost

	Total Cost	Federal Share of Total Cost	SUD-IMD Cost	ED Cost	MAT Cost	ASAM Cost
Trend	0.263***	0.186***	0.160***	0.032***	0.045***	0.025***
	(0.049)	(0.031)	(0.041)	(0.009)	(0.003)	(0.002)
Post1	16.119**	8.971*	14.069**	-0.451	1.691***	0.703***
	(7.636)	(5.043)	(5.434)	(2.538)	(0.508)	(0.218)
Post2	-14.473*	-8.215	-12.244**	1.882	-3.861***	-0.18
	(7.812)	(5.163)	(5.683)	(2.564)	(0.517)	(0.221)
Post x Trend1	-0.705**	-0.394*	-0.585***	-0.006	-0.075***	-0.034***
	(0.297)	(0.196)	(0.213)	(0.101)	(0.022)	(0.009)
Post x Trend2	0.525*	0.292	0.438**	-0.05	0.126***	0.008
	(0.296)	(0.196)	(0.214)	(0.102)	(0.022)	(0.009)
Baseline Mean	20.2	12.7	13.5	4.2	1.9	0.5
R^2	0.589	0.689	0.407	0.275	0.982	0.843
Observations	48	48	48	48	48	48

Notes: All costs are in millions of 2019$. Coefficient definitions are as follows: *Trend* represents the pre-intervention estimate of the slope of the linear trend in the outcome variable; *Post1* and *Post2* are indicators for level changes in outcomes coinciding with the intervention periods; *Post x Trend1* and *Post X Trend2* represent the post-intervention change in the slope of the linear trend compared to the pre-intervention period. The baseline mean is calculated as the mean of the outcome variable in the pre-intervention period. Heteroskedasticity-robust standard errors are presented in parentheses below the coefficient estimates. *$p<0.10$, **$p<0.05$, ***$p<0.01$

Notes about imputation of 2017 IMD values:

All values are based on values reported as part of the monitoring protocol except for values relating to beneficiaries treated in an institution of mental disease. Lists of institutions of mental disease were not preserved for 2017, so this metric is not reported in the utilization metrics. But IMD stays are a component of total costs, so we use the 2018 list of institutions of mental disease and calculate the number of patients staying in IMDs in 2017 and 2018 using the 2018 facility definition. We then scale our 2017 monthly calculations by the ratio between the Louisiana Department of Health's 2018 annual total and Tulane's 2018 annual total. We also repeat this imputation process to obtain 2017 estimates of the length of stay in an IMD. This procedure applies to the number of patients in an IMD (Monitoring Metric 5) and the length of stay in an IMD (Monitoring Metric 36).