DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-25-26
Baltimore, Maryland 21244-1850

State Demonstrations Group

October 19, 2023

Cora Steinmetz
Medicaid Director
Indiana Family and Social Services Administration
402 W Washington St., W374
Marion County, Indianapolis, IN 46204

Dear Director Steinmetz:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the Summative Evaluation Report, which was required by the Special Terms and Conditions (STCs), specifically STC 15.7 "Summative Evaluation Report" of the "Healthy Indiana Plan (HIP)" (Project No: 11-W-00296/5). The demonstration was approved from February 1, 2018 through December 31, 2020, and this Summative Evaluation Report covers the Substance Use Disorder (SUD) component of the demonstration over this time. CMS determined that the Evaluation Report, first submitted on June 30, 2022 and revised on May 15, 2023, is in alignment with the CMS-approved Evaluation Design and the requirements set forth in the STCs, and therefore, approves the state's HIP SUD Summative Evaluation Report.

The SUD Summative Evaluation Report shows improvement in access to care and utilization of initiation and engagement in alcohol and other drug abuse disorder (AOD) treatment, follow-up after emergency department visits, and continuity of pharmacotherapy for opioid use disorder (OUD). Rates of potentially inappropriate use of opioids declined, including rates of opioid use at high dosage among persons without cancer and use of opioids from multiple providers. Consistent with observed increases in SUD and OUD service utilization, the report shows that access to care for the SUD population improved by increasing the number of SUD treatment providers including the number of MAT providers, increasing the number of licensed residential treatment beds, and decreasing the denial rate of prior authorization requests for SUD services. However, additional analyses are needed to further investigate if these changes can be attributed to the demonstration. The report also showed that the demonstration had no impact on the per capita expenditures on SUD services, but it increased the per capita expenditures for all services, among SUD beneficiaries. While access to care and utilization improved, beneficiaries reported difficulties in accessing care due to long travel times, finding providers who accept Medicaid and accessing supportive housing, MAT, therapists, transportation, and dental care. One opportunity for improvement the report discussed was the need to expand service coverage in regions where there is lack of services by creating incentives to enhance provider capacity.

In accordance with STC 15.9, the approved Evaluation Report may now be posted to the state's Medicaid website within 30 days. CMS will also post the Summative Evaluation Report on Medicaid.gov.

We look forward to our continued partnership on the Indiana HIP section 1115 demonstration. If you have any questions, please contact your CMS demonstration team.

Sincerely,

Danielle Daly -S

Digitally signed by Danielle Daly -S
Date: 2023.10.19 12:02:00 -04'00'

Danielle Daly
Director
Division of Demonstration Monitoring and Evaluation

cc: Mai Le-Yuen, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Summative Evaluation of Indiana's Section 1115 Substance Use Disorder Demonstration for the Period February 1, 2018 to December 31, 2020

MAY 20, 2023

HMA

HEALTH MANAGEMENT ASSOCIATES

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SECTION A: Executive Summary

Indiana was one of the first states to obtain approval from the Centers for Medicare and Medicaid Services (CMS) for its waiver demonstration for the expansion of the delivery of substance use disorder (SUD) treatment services. The demonstration period was from February 1, 2018 through December 31, 2020. Since this initial demonstration, Indiana received authority for renewal of its SUD demonstration through December 31, 2025. This report serves as the Summative Evaluation of the initial demonstration period.

Indiana aligned its demonstration goals with the milestones outlined by CMS for SUD demonstrations:

1. Access to critical levels of care for SUD treatment;
2. Use of evidence-based, SUD-specific patient placement criteria;
3. Use of nationally recognized SUD-specific program standards for residential treatment;
4. Sufficient provider capacity at critical levels of care;
5. Implementation of comprehensive treatment and prevention strategies to address opioid abuse; and
6. Improved care coordination and transitions between levels of care.

Coinciding with its waiver demonstration approval, on February 1, 2018, Indiana received approval of its SUD Implementation Protocol as required by the waiver special terms and conditions. The State's Implementation Plan aligns its goals for the SUD waiver component with the CMS milestones as follows:

1. Increased rates of identification, initiation, and engagement in treatment;
2. Increased adherence to and retention in treatment;
3. Reductions in overdose deaths, particularly those due to opioids;
4. Reduced utilization of emergency departments and inpatient settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services;
5. Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
6. Improved access to care for physical health conditions among beneficiaries.

Indiana Medicaid provides coverage of SUD treatment services to its members based on standards outlined through the American Society of Addiction Medicine (ASAM). Many services that align with an ASAM level of care were covered prior to the implementation of the 1115 demonstration waiver. The most notable change with the demonstration was the implementation of residential treatment at ASAM levels 3.1 and 3.5. Also, Indiana modified coverage to move many services that had previously been available only as Medicaid Rehabilitation Option (MRO) services to state plan services.

The Family and Social Service Administration's (FSSA's) Office of Medicaid Policy and Planning (OMPP) has responsibility for the administration and oversight of Indiana's Medicaid program under waiver and state plan authorities. As of December 2020, 82 percent of beneficiaries were enrolled in one of the State's three risk-based managed care programs that each serves a targeted population—Hoosier Healthwise (mostly serving children), Healthy Indiana Plan (serving pregnant women and other adults), and Hoosier Care Connect (serving the aged, blind and disabled population and children in foster care). The remaining 18 percent of beneficiaries were enrolled in fee-for-service (FFS). During this time, Indiana's managed care programs were administered under contract with four managed care entities.

Population Impacted by the Demonstration

Medicaid beneficiaries with a SUD diagnosis have grown consistently during a five-year period examined, from 43,063 in Q1-2016 to 114,317 as of Q4-2020. Over the course of the demonstration, the population of beneficiaries with SUD grew 23 percent (92,642 in Q1-2018 to 114,317 in Q4-2020). Individuals with a newly initiated SUD diagnosis has been steadier over the five years. In CY 2016, the average over the four quarters was 675 beneficiaries; in CY 2020, the average was 790.

Overall, Medicaid members with a SUD diagnosis represented 6.2 percent of the total Medicaid population at the start of the demonstration in February 2018. By the end of the first SUD demonstration period in December 2020, these members represented 6.5 percent of total enrollees. Non-elderly adults represent approximately half of total Medicaid enrollment, but more than 12 percent of non-elderly adults have a SUD diagnosis. Dual eligibles, the criminally involved, and beneficiaries enrolled in the MRO benefit are also over-represented within the total population with SUD compared to their proportional enrollment in Medicaid overall (i.e., each subpopulation has a higher percentage of its members with SUD). At the regional level throughout the state, Medicaid enrollees in the East Central, Southwest, and Southeast regions are over-represented in the percentage with SUD compared to the statewide average.

Evaluation Questions and Hypotheses

Burns & Associates, a Division of Health Management Associates (HMA-Burns) is serving as the Independent Evaluator for this demonstration. HMA-Burns constructed two driver diagrams identifying primary and secondary drivers of two principle aims: 1) reduction in overdose rate; and 2) reduction in per capita cost. In order to translate these aims as well as primary and secondary drivers into measurable results, HMA-Burns compared these items against the measures included in the FSSA's Monitoring Protocol. HMA-Burns found that existing, nationally-recognized measures were available for the aims and primary drivers; moreover, the specifications and data sources were already described as part of FSSA's CMS-approved Monitoring Protocol.

To fill gaps in measuring secondary drivers, HMA-Burns added custom measures where needed. These measures were used as targets such that performance during the demonstration period was considered against the pre-demonstration period. In total, 55 measures were examined as part of the evaluation. Five hypotheses and 19 research questions were developed. CMS approved the Evaluation Design Plan in June 2019. It appears as Appendix A in this report. Modifications appear in Section E.

Methodology

HMA-Burns used six analytic methods to conduct its evaluation: (1) single segment interrupted time series (ITS); (2) descriptive statistics; (3) onsite reviews; (4) desk reviews; (5) provider and beneficiary surveys; and (6) facilitated interviews. At least two analytic methods were used to answer each hypothesis. Modifications to the proposed analytic method appear in Section E.

Target Population

The target population is any Indiana Medicaid beneficiary with a SUD diagnosis in the study period. HMA-Burns used the specification developed by CMS in its SUD Monitoring Metric #3 to identify beneficiaries with SUD. This population comprises the demonstration population. HMA-Burns also developed sub-populations which were tracked and reported on in both the Interim Evaluation and the Mid-Point Assessment. The same sub-populations are being reported on in this Summative Evaluation.

1. **Managed Care Model:** Includes the target population enrolled in one of the managed care programs
2. **OUD**: Includes the target population who meet the criteria for having an opioid use disorder (OUD) diagnosis
3. **Dual eligible**: Includes the target population who meet criteria for being dually-eligible for both the Medicare and Medicaid population
4. **Pregnant**: Includes the target population who meet the criteria for having a pregnancy
5. **Criminally Involved**: Includes the target population who meet the criteria for being criminally involved. HMA-Burns used Indiana Department of Correction data to match against the demonstration population to identify whether or not a person was incarcerated at any time in the calendar year.
6. **MRO**: Includes the target population who meet criteria for being eligible to receive Medicaid Rehabilitation Option services in the calendar year
7. **Region**: The eight regions that have customarily been used by the FSSA match each of Indiana's 92 counties to a region in the state were used

Evaluation Period

Metrics for the demonstration population and sub-populations are computed for a pre- and post-demonstration period. The pre-demonstration period is defined as January 1, 2016 to January 31, 2018 for monthly measures and CY 2016 and CY 2017 for annual measures. While the initial demonstration evaluation design intended for 2015 data to be included in the pre-demonstration period, the independent evaluators did not include it due to the impact of conversion from ICD-9 to ICD-10; this is discussed further in Section E. The demonstration period is defined as February 1, 2018 to December 31, 2020. For ITS and other descriptive statistics, the period from February 1, 2018 to February 28, 2020 was used for monthly measures and CY 2018 and CY 2019 for annual measures. While CY 2020 was not used in the study, metric results are found in Appendix H.

There are two items of note. First, the demonstration approval was given "off-cycle" effective February 1, 2018. For annual measures, HMA-Burns has assumed the entire year of CY 2018 as part of the demonstration year. Second, due to the significant changes in utilization during the public health emergency (PHE), results are reported for many measures for CY 2020; however, for the statistical tests (e.g. ITS, chi square, or T-tests), the cutoff date for use was February 28, 2020 for monthly measures. This controls for any atypical results that occurred during the PHE. For annual measures, the results from CY 2020 were not utilized in the analysis. Only the first two years of the demonstration—CY 2018 and CY 2019—were used in statistical tests.

Data Sources

Claims and encounters, member enrollment, and provider enrollment data from the FSSA Enterprise Data Warehouse was the primary source for computing measures defined in the evaluation.

For some measures defined by HMA-Burns, the evaluators used primary data collected from MCEs for Medicaid beneficiaries enrolled in managed care. This was completed for the two SUD authorization focus studies conducted during the evaluation in which metrics were examined such as authorization approval and denial rates, average turnaround time for authorization decisions, and the percentage of denied requests based on the application of medical necessity criteria. HMA-Burns also requested data

from the MCEs to determine which of their members with SUD who used inpatient hospital and residential treatment services were enrolled in their case or care management program. This was to support a study on the transitions of care.

The HMA-Burns team collected feedback from a variety of stakeholders to gain perceptions about the implementation of the SUD waiver, as well as their perspectives related to SUD service delivery for Medicaid beneficiaries. Data sources included one-on-one qualitative interviews with 28 providers, feedback from 26 providers in an online survey, one-on-one interviews with 21 Medicaid beneficiaries receiving active treatment, and interviews with the MCEs both individually and as a group prior to the Mid-Point Assessment and the Summative Evaluation.

Results

The results are summarized in Exhibits 1 through 7 on the following pages. Each exhibit summarizes the findings by each of the six CMS Milestones. Exhibit 7 includes results of measures not tied to a specific CMS Milestone. The results are organized into three categories—review of measures, status of the State's efforts to date in completion of its SUD Implementation Plan, and feedback from stakeholders.

For the measures, each table shows the desired outcome for each measure, if the desired outcome was met, and if the results were found to be statistically significant.

For the assessment of SUD Implementation Plan activities, HMA-Burns inventoried all activities listed in the State's approved Implementation Plan by CMS milestone. The table shows the number of activities planned, the number completed, and the number abandoned.

For stakeholder feedback, HMA-Burns synthesized the feedback by themes. For each theme, the specific feedback is cited with an indication of the constituent(s) that provided the feedback to the evaluators. HMA-Burns then gave an assessment of the feedback by segmenting it into the following categories—compliment, critique, neutral, or recommendation.

More detailed information on each aspect of the results appears in Section F of the report.

Conclusions

When considering the driver diagrams shown in the Evaluation Design Plan, Indiana did not meet the specific aims identified outright but did see positive impacts due to the demonstration:

- **Reduce the level and trend in overdose deaths in the SUD population**. Overdose deaths among Medicaid beneficiaries did increase during the demonstration period from the pre-demonstration period. There were 1,022 deaths in CY 2016, 1,290 in CY 2017, 1,610 in CY 2018, 1,403 in CY 2019, and 1,494 in CY 2020. The highest level was seen in the first year of the demonstration, then dropped in years two and three.
- **Reduce the cost of the SUD population in the demonstration period**. Total cost per capita for SUD beneficiaries increased during the demonstration, but per capita spending for SUD services more than doubled in a five-year period, from $1,814 in CY 2016 (pre-demonstration) to $3,843 in CY 2020 (end of demonstration). Even during the demonstration years of CY 2018 to CY 2020, per capita spending for SUD services increased 48 percent. Further, the per capita expenditures for institutional-based services as a proportion of total SUD expenditures remained steady; the increase in expenditures was seen in SUD community-based services.

The PHE likely had a confounding effect in enabling Indiana to fully meet these aims during the demonstration period. The shorter-than-typical demonstration period (three years instead of five years) also gave the FSSA less time to achieve these aims.

When considering the CMS Milestones, Indiana saw success in each milestone. Among 55 measures reviewed, there were 36 where the desired outcome was met. Of these, 20 measures had an outcome that was statistically significant.

The FSSA was also successful in large part in the activities it set out to do in its SUD Implementation Plan. Among the 31 activities identified, 24 were completed in full. The remainder are in progress with only one item being abandoned. There were implementation activities completed that were targeted for each of the CMS Milestones.

Some key success factors of the demonstration include the following:

1. Beneficiaries receiving any SUD service on a monthly basis grew 52 percent during demonstration.
2. The proportion of SUD providers in the state that accept Medicaid grew during the demonstration period.
3. There was continual expansion in the offering of residential treatment services over the demonstration period, both in licensed locations and licensed beds.
4. State-sponsored ASAM training proved helpful to new and existing Medicaid providers.
5. The introduction of a universal prior authorization form helped to align expectations on utilization management across providers and the FSSA's MCEs.
6. There is lower emergency department use after transitioning from ASAM level 4 or 3 care.

Assessment of Opportunities for Improvement

Indiana saw significant progress towards its aim to expand SUD-specific services to its Medicaid population through this truncated demonstration period. With the expansion of coverage for new services across the ASAM continuum and a concentrated effort to increase access to services that had previously been covered, there remain opportunities for continued improvement as the FSSA enters its second SUD demonstration period. The HMA-Burns evaluation team has identified 15 specific areas of opportunity. These are shown in Section G of the report. The primary themes around potential areas of improvement include the following:

- Expansion of provider supply. Specific areas include SUD services for children and adolescents statewide, residential treatment services in northern counties of the state, residential services at ASAM levels 3.1 and 3.7 more specifically, supportive housing, and peer supports.
- Consideration of policy changes. Specific areas include the utilization and authorization of intensive outpatient and partial hospitalization and services delivered to Medicaid beneficiaries immediately after release from incarceration.
- Operations. Specific areas include the development of an online, fillable authorization request form, the development of a SUD-specific provider manual, and additional ASAM trainings.

- Oversight. Specific areas include strengthening oversight of the MCE's SUD authorization processes and the delivery of case or care management to individuals with SUD who use higher ASAM levels of care.

Exhibit 1
Summary of Findings for CMS Milestone 1
Access to Critical Levels of Care for SUD Treatment

Measures	
Number of Measures Examined	10
Number of Measures Where Desired Outcome Was Met	8
Number of Measures Where Desired Outcome Was Statistically Significant	5

Measures Where Desired Outcome Was Met:	
Users of Any SUD Treatment	Increase
Users of Outpatient Services	Increase
Users of Intensive Outpatient and Partial Hospitalization	Increase
Users of Residential and Inpatient Services	Increase
Users of Withdrawal Management	Increase
Users of Medication-Assisted Treatment	Increase
Continuity of Pharmacotherapy for Opioid Use Disorder	Increase
Proportion of SUD Providers Accepting Medicaid	Increase

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	17
Number of Activities Completed	12
Number of Activities Abandoned	1

Stakeholder Feedback	**Type**
The MCEs overwhelmingly were supportive of the ability to cover care in treatment settings not previously covered, specifically residential treatment centers. They all expressed that this was a huge gap in care and felt that the waiver was providing access to a much-needed service.	Compliment
Providers were appreciative that the waiver has allowed access to treatment settings not previously covered by Medicaid.	Compliment
Providers and MCEs responded that Medicaid beneficiaries do not understand the benefits available to them. Specific comments were directed toward sober living options and medication assisted treatment.	Critique
Beneficiaries stated that they did not know they had access to care and what Medicaid covered. They thought that getting treatment for addictions was only for rich people.	Critique

Exhibit 2
Summary of Findings for CMS Milestone 2
Use of Evidence-Based, SUD-specific Patient Placement Criteria

Measures	
Number of Measures Examined	4
Number of Measures Where Desired Outcome Was Met	2
Number of Measures Where Desired Outcome Was Statistically Significant	1

Measures Where Desired Outcome Was Met:	
Average Length of Stay in IMDs	Decrease
Authorization Denial Rate for SUD Services	Decrease
SUD Authorization Denial Reasons, Proportion Due to Medical Necessity not	Increase

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	4
Number of Activities Completed	4
Number of Activities Abandoned	0

Stakeholder Feedback	**Type**
MCEs reported that the interaction between themselves, providers, and the State has become much more collaborative over the duration of the demonstration period. The universal prior authorization form has helped.	Compliment
The MCEs thought that FSSA should provide further clarification on the criteria and processes used for prior authorization. Specifically, they cited the PHE policies related to auto-authorization and increased lengths of stay created confusion among providers.	Recommen-dation
Providers expressed concerns with the prior authorization process with the MCEs, particularly related to receiving different interpretations or results of SUD authorization approvals and denials across the MCEs.	Critique
Providers overwhelmingly expressed concerns with the lack of consistent documentation requirements across the MCEs for prior authorization requests.	Critique
Providers expressed that the clinical peer-to-peer process for review of authorization decisions was difficult over the course of the demonstration.	Critique
During the Mid-Point Assessment, the majority of inpatient and residential treatment providers interviewed stated that the MCEs are initially denying treatment in these care settings for individuals coming out of the justice system because the member is coming from a "clean period or environment". Providers do not believe this is always the case.	Critique

Exhibit 3
Summary of Findings for CMS Milestone 3
Use of Nationally Recognized SUD-specific Program Standards for Residential Treatment

Measures	
Number of Measures Examined	2
Number of Measures Where Desired Outcome Was Met	2
Number of Measures Where Desired Outcome Was Statistically Significant	none tested

Measures Where Desired Outcome Was Met:	
Number of Licensed SUD Residential Treatment Beds	Increase
Number of Licensed SUD Residential Treatment Locations	Increase

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	2
Number of Activities Completed	1
Number of Activities Abandoned	0

Stakeholder Feedback	**Type**
Residential treatment providers expressed that the physical barrier requirement established by DMHA to separate ASAM 3.1 and 3.5 programs is inherently limiting to the usual way these services are delivered. This may be limiting enrollment as a 3.1 provider.	Critique
Providers could not understand why there is not a licensure requirement for ASAM 3.7. Development of licensure for this level may help alleviate some of the authorization denials at ASAM 4.0.	Recommen-dation
While supportive of the PHE policies designed to assure access, the MCEs overwhelmingly expressed concerns that they are essentially starting over on provider education regarding authorization and ASAM levels due to staff turnover at the provider locations.	Neutral
Some of the providers, but not all, expressed that they had issues with credentialing and onboarding with the MCEs at the outset of the SUD waiver. Providers did acknowledge that this has improved over the course of the demonstration.	Neutral

Exhibit 4
Summary of Findings for CMS Milestone 4
Sufficient Provider Capacity at Critical Levels of Care

Measures	
Number of Measures Examined	8
Number of Measures Where Desired Outcome Was Met	4
Number of Measures Where Desired Outcome Was Statistically Significant	1

Measures Where Desired Outcome Was Met:	
Number of Medicaid SUD MAT Providers	Increase
Number of Medicaid SUD Outpatient Providers	Increase
Number of Medicaid SUD Residential Treatment Providers	Increase
Number of Medicaid SUD Visits per 1,000 Medicaid Beneficiaries with SUD Diagnosis	Increase

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	4
Number of Activities Completed	4
Number of Activities Abandoned	0

Stakeholder Feedback	**Type**
Some members had difficulties finding providers who would take Medicaid, yet others were able to access care immediately.	Neutral
Services most often mentioned by individuals with SUD that were hard to access include supportive housing (specifically one that will accept a member who is receiving MAT), therapists, transportation, and dental care.	Critique
Other barriers to access mentioned by beneficiaries include: help with paying for medications when insurance won't cover it; IOP classes not covered by insurance; and treatment places where you can bring your children or assist with getting daycare.	Critique
The MCEs expressed that the lack of ASAM level 3.7 availability is a cause for concern as IMDs are not equipped onsite for medical emergencies.	Critique
Providers mentioned the following as problematic access to services, at least in some parts of the state: supportive housing, sober living, peer supports, IOP, OTP, ASAM 3.1 residential providers, and ASAM 3.7 residential providers.	Critique
Several providers expressed concern that state law (Indiana Code 12-23-18-5.5) which limits the number of OTP programs in the state is a barrier to access.	Critique

Exhibit 5
Summary of Findings for CMS Milestone 5
Implementation of Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse

Measures	
Number of Measures Examined	4
Number of Measures Where Desired Outcome Was Met	4
Number of Measures Where Desired Outcome Was Statistically Significant	3

Measures Where Desired Outcome Was Met:	
Use of Opioids at High Dosage in Persons Without Cancer	Decrease
Use of Opioids from Multiple Providers in Persons Without Cancer	Decrease
Use of Opioids at High Dosage from Multiple Providers in Persons Without Cancer	Decrease
Concurrent Use of Opioids and Benzodiazepines	Decrease

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	3
Number of Activities Completed	2
Number of Activities Abandoned	0

Stakeholder Feedback	**Type**
Providers and MCEs both appreciated the open-door policy of the FSSA agencies, specifically the willingness to work collaboratively on resolving issues.	Compliment
Residential treatment and inpatient providers expressed that the FSSA single prior authorization form has been an improvement.	Compliment
Providers did comment that the demonstration--though commendable--has too much focus on opioids with the risk of marginalizing other addictions.	Critique
Providers state that there are lingering authorization and billing issues with the MCEs that are compounded each time FSSA issues new guidance or policy. Most providers did comment, however, that there has been improvement in this area.	Critique
MCEs and providers commented that, while well intended, provider bulletins have contributed to confusion among SUD providers. They suggested a one stop location for all SUD-specific information would be more helpful.	Recommen-dation
The majority of providers would like a dedicated contact person at the FSSA to call with clarifying questions.	Recommen-dation
Beneficiaries suggested having more readily available pamphlets with information about what Medicaid covers, provider services, and locations to get treatment at places where beneficiaries often go. Suggested locations: local WIC, welfare offices; parole offices; homeless shelters; AA/NA meeting sites.	Recommen-dation
Beneficiaries suggested targeted outreach to teens and young adults via social media on the dangers of addiction and where to get help.	Recommen-dation

Exhibit 6
Summary of Findings for CMS Milestone 6
Improved Care Coordination and Transitions Between Levels of Care

Measures	
Number of Measures Examined	11
Number of Measures Where Desired Outcome Was Met	10
Number of Measures Where Desired Outcome Was Statistically Significant	9

Measures Where Desired Outcome Was Met:	
Initiation of Alcohol and Other Drug Dependence Treatment, Total AOD	Increase
Initiation of AOD Treatment, Opioid Abuse Only	Increase
Initiation of AOD Treatment, Abuse Other than Alcohol or Opioid	Increase
Engagement of AOD Treatment, Total AOD Population	Increase
Engagement of AOD Treatment, Alcohol Abuse Only	Increase
Engagement of AOD Treatment, Opioid Abuse Only	Increase
Engagement of AOD Treatment, Abuse Other than Alcohol or Opioid	Increase
Follow-up After ED Visit for Alcohol or Other Drug Dependence, 7 day	Increase
Follow-up After ED Visit for Mental Illness, 7 day	Increase

Implementation Activities	
Number of Activities Identified in the State's SUD Implementation Plan	1
Number of Activities Completed	1
Number of Activities Abandoned	0

Stakeholder Feedback	**Type**
Provider experiences were highly variable with respect to interacting with the MCEs on care coordination activities. Providers participating in 1:1 interviews indicated limited or no interaction with the MCEs, yet most providers completing online survey indicated they do interact with the MCEs.	Neutral
The MCEs commented that the lack of sober living or supportive housing options for beneficiaries continues to be an ongoing concern for meaningful transitions of care. This has been particularly challenging during the PHE.	Critique
Many beneficiaries expressed concerns that they have difficulties finding care to transition to after discharge from a hospital setting to a residential treatment center that is close to or within their county of residence. Many stated that they traveled long distances to come to get care.	Critique
Members who received either inpatient or residential treatment stated concerns that the length of stay was not long enough. They cite that they have been using for many years, have had multiple relapses, and that they need sufficient time to develop skills to go to the next treatment level.	Critique

Exhibit 7

Summary of Findings for Other SUD-Related Metrics in the Evaluation Design Plan

Measures	
Number of Measures Examined	16
Number of Measures Where Desired Outcome Was Met	5
Number of Measures Where Desired Outcome Was Statistically Significant	1

Measures Where Desired Outcome Was Met:	
Rate of per capita expenditures for SUD services among the SUD population	Increase
Proportion of per capita expenditures for SUD services across ASAM levels of care	More spread across levels
Rate of emergency department visits for SUD per 1,000 Medicaid beneficiaries	Decrease
Prescribers Accessing Indiana's INSPECT	Increase
Hospitals that have Integrated with Indiana's INSPECT	Increase

SECTION B: General Background Information

Description of the Demonstration's Policy Goals

Indiana was one of the first states to obtain approval from the Centers for Medicare and Medicaid Services (CMS) for its waiver demonstration for the expansion of the delivery of substance use disorder (SUD) treatment services. Indiana aligned its demonstration goals with the milestones outlined by CMS for SUD demonstrations:

1. Access to critical levels of care for SUD treatment;
2. Use of evidence-based, SUD-specific patient placement criteria;
3. Use of nationally recognized SUD-specific program standards for residential treatment;
4. Sufficient provider capacity at critical levels of care;
5. Implementation of comprehensive treatment and prevention strategies to address opioid abuse; and
6. Improved care coordination and transitions between levels of care.

Coinciding with its waiver demonstration approval, on February 1, 2018, Indiana received approval of its SUD Implementation Protocol as required by the special terms and conditions (STC) X.10 of the state's Section 1115 Healthy Indiana Plan (HIP) demonstration. As set forth in the Implementation Plan, Indiana is aligning its goals for the SUD waiver component with the milestones outlined by CMS as follows:

1. Increased rates of identification, initiation, and engagement in treatment;
2. Increased adherence to and retention in treatment;
3. Reductions in overdose deaths, particularly those due to opioids;
4. Reduced utilization of emergency departments and inpatient settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services;
5. Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
6. Improved access to care for physical health conditions among beneficiaries.

Indiana's Implementation Plan describes the planned activities during the demonstration period organized by CMS milestone.

Demonstration Name, Approval Date, and Time Period of Data Analyzed in the Assessment

Name: Healthy Indiana Plan

Project Number: 11-W-00296/5

Approval Date: February 1, 2018

Time Period Covered by Evaluation: February 1, 2018 through December 31, 2020, with pre-waiver data from January 1, 2016 through January 31, 2018.

Brief Description and History of Implementation

Indiana's Section 1115 Waiver Authority

Indiana Medicaid provides coverage of SUD treatment services to its members based on standards outlined through the American Society of Addiction Medicine (ASAM). The matrix below provides an overview of each ASAM level of care with Indiana Medicaid's coverage prior to and then starting with the demonstration period. Many services that align with an ASAM level of care were covered prior to the implementation of the 1115 demonstration waiver. The most notable change with the demonstration was the implementation of residential treatment at ASAM levels 3.1 and 3.5. Also, Indiana modified coverage to move what had been Medicaid Rehabilitation Option (MRO) services to state plan services. These services became available to all Medicaid members.

Indiana Medicaid SUD Service Coverage Pre- and Post-Waiver by ASAM Level of Care

ASAM	Service	Description	Pre-Waiver Coverage	Post-Waiver Coverage
OTP	Opioid Treatment Program	Pharmacological and non-pharmacological treatment in an office-based setting (methadone)	Yes (as of Sept. 2017)	Yes
0.5	Early Intervention	Services for individuals who are at risk of developing substance-related disorders	Yes, all populations	Yes, all populations
1.0	Outpatient Services	Outpatient treatment (usually less than 9 hours a week), including counseling, evaluations and interventions	Yes, all populations	Yes, all populations
2.1	Intensive Outpatient Services	9-19 hours of structured programming per week	Yes, but for the MRO-eligible population only	**Yes, all populations**
2.5	Partial Hospitalization	20 or more hours of clinically intensive programming per week	Yes, all populations	Yes, all populations
3.1	Clinically Managed Low- Intensity Residential	24-hour supportive living environment; at least 5 hours of low-intensity treatment per week	No coverage	**Yes, all populations**
3.5	Clinically Managed High- Intensity Residential	24-hour living environment, more high-intensity treatment	No coverage	**Yes, all populations**
3.7	Medically Monitored Intensive Inpatient Services	24-hour professionally directed evaluation, observation, medical monitoring, and addiction treatment in an inpatient setting	Yes, for all (based on medical necessity)	Yes, based on medical necessity
4.0	Medically Managed Intensive Inpatient	24-hour inpatient treatment requiring the full resources of an acute care or psychiatric hospital	Yes, for all (based on med. necessity)	Yes, based on medical necessity
Sub-supported	Addiction Recovery Management Services	Services to help people overcome personal and environmental obstacles to recovery	No coverage	**Yes, all populations**
	Supportive Housing Services	Services for individuals who are transitioning or sustaining housing	No coverage	Explore options to cover

Administration of Indiana's Medicaid Program

The Family and Social Service Administration's (FSSA's) Office of Medicaid Policy and Planning (OMPP)[1] has responsibility for the administration and oversight of Indiana's Medicaid program under waiver and state plan authorities. As of December 2020, 82 percent of beneficiaries were enrolled in one of the State's three risk-based managed care programs that each serves a targeted population—Hoosier Healthwise, Healthy Indiana Plan and Hoosier Care Connect.[2] The remaining 18 percent were enrolled in fee-for-service (FFS).

The approved waiver provides access to the enhanced SUD benefit package for all Indiana Medicaid beneficiaries, regardless of enrollment in FFS or with one of the managed care entities (MCEs).

The **Hoosier Healthwise (HHW)** program (40% of total Medicaid enrollment) began in 1994. By 2005, enrollment with an MCE was mandatory for low income families, pregnant women, and children. This program is authorized by a 1932(a) state plan amendment. Today, HHW primarily has an enrollment base of child Medicaid members, including those enrolled in the Children's Health Insurance Program.

The **Healthy Indiana Plan (HIP)** program (36% of total Medicaid enrollment) was first created in January 2008 under a separate Section 1115 waiver authority. This program covered adults with family income up to 200 percent of the federal poverty level (FPL) who were not otherwise eligible for Medicaid or Medicare. In more recent years, adult caretakers and most all of the pregnant women who had been enrolled in HHW are now enrolled in HIP.

The **Hoosier Care Connect (HCC)** program (6% of total Medicaid enrollment) was implemented in April 2015 under a 1915(b) waiver authority. The HCC is a program that administers and deliver services to aged, blind and disabled members. Children in foster care are also enrolled in HCC.

Traditional Medicaid (FFS) is comprised of the remaining Medicaid enrollees and includes the following populations:

- Individuals dually enrolled receiving Medicare and Medicaid benefits;
- Individuals receiving home- and community-based waiver benefits;
- Individuals receiving care in a nursing facility or other State-operated facility;
- Individuals in specific aid categories (e.g., refugees); and
- Individuals awaiting an assignment to an MCE.

During the demonstration period, four MCEs were under contract with the OMPP to administer services to its managed care programs:

- Anthem has been under contract since 2007 and serves members in HHW, HIP, and HCC.
- Managed Health Services, a subsidiary of the Centene Corporation, has been under contract since 1994 and serves members in HHW, HIP, and HCC.
- MDwise, a subsidiary of McLaren, has been under contract since 1994 and serves members in HHW and HIP.
- CareSource has been under contract since 2017 and serves members in HHW and HIP.

[1] FSSA and OMPP are collectively referred to as Indiana Medicaid throughout this report.
[2] https://www.in.gov/fssa/ompp/forms-documents-and-tools2/medicaid-monthly-enrollment-reports/

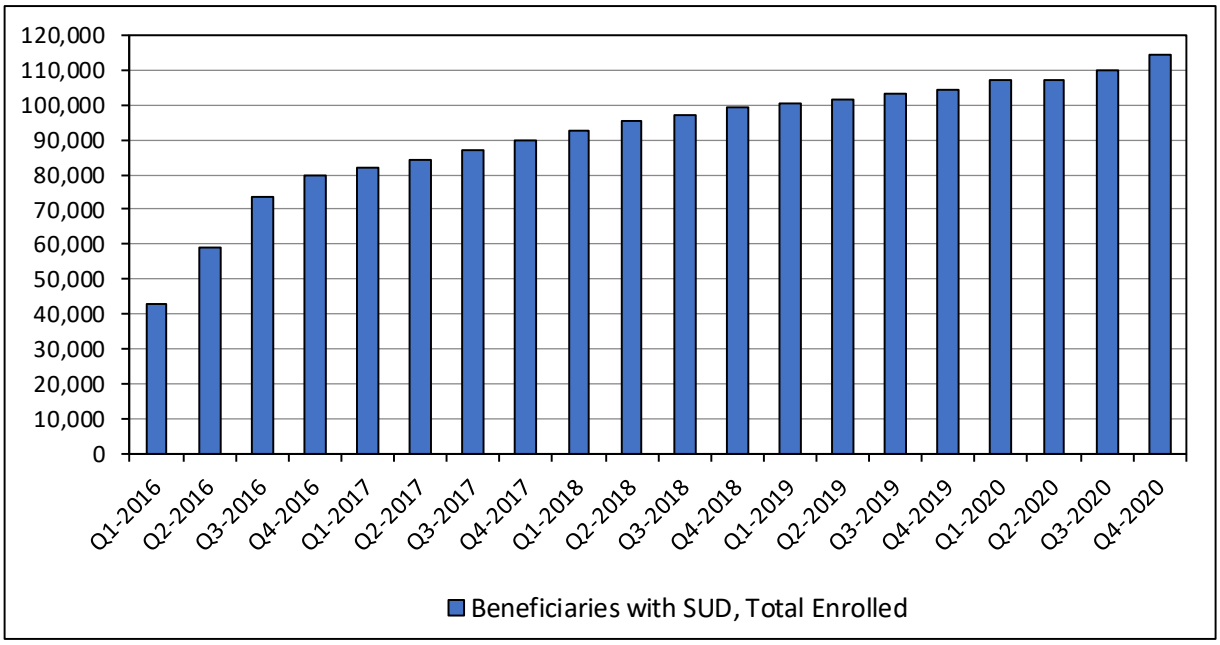
The OMPP has worked in close collaboration with the Division of Mental Health and Addiction (DMHA), another agency under the FSSA, since the implementation of the SUD waiver demonstration. The DMHA holds responsibility for licensing residential treatment facilities. The DMHA has also undertaken a comprehensive review of its regulations related to service providers and service delivery with an eye toward alignment with ASAM. On a regular basis, a team comprised of OMPP and DMHA staff meet to assess and review policies and procedures related to SUD services. Both divisions met with MCEs and SUD providers frequently at the start of the demonstration and continue to do so today.

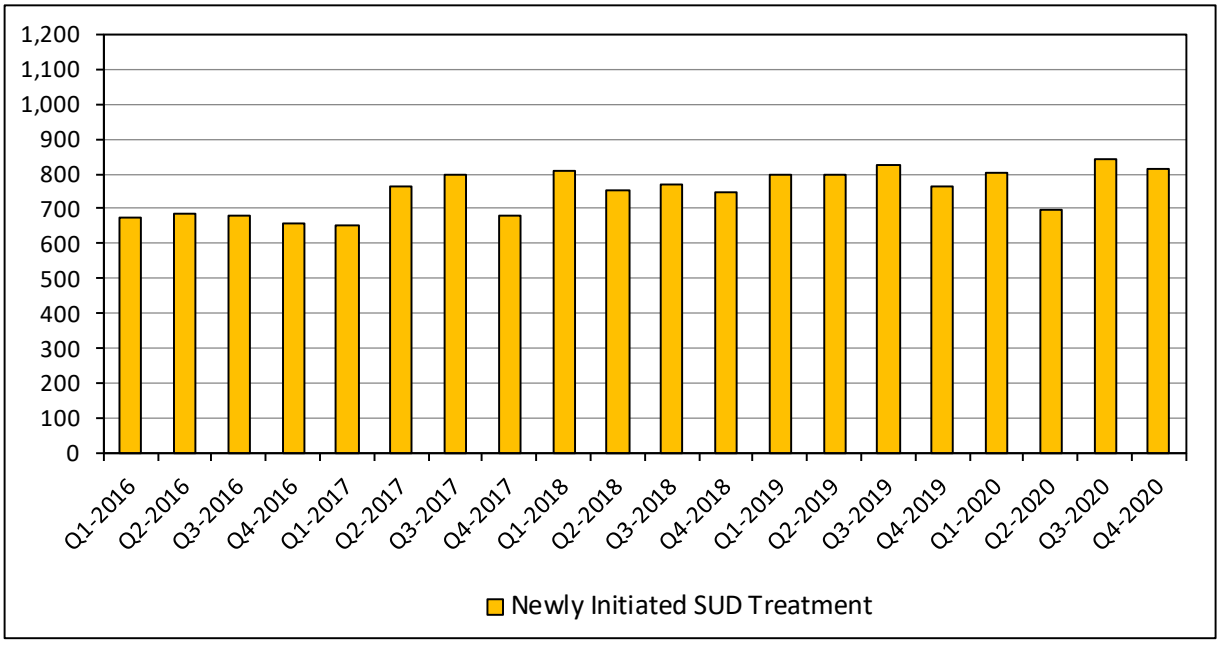
Population Groups Impacted by the Demonstration

The evaluators used CMS's specifications for SUD Metric #3 (Medicaid Beneficiaries with SUD Diagnosis) and Metric #2 (Medicaid Beneficiaries with Newly Initiated SUD Diagnosis) to assess the trend in the Medicaid population most likely to be impacted by the demonstration. Exhibit 8, which appears on the next page, shows the trend on both of these measures on a quarterly basis from Q1-2016 to Q4-2020. This period is roughly the two-year period prior to the start of the demonstration and the three years during the SUD demonstration.

Medicaid beneficiaries with a SUD diagnosis have grown consistently during the five-year period examined, from 43,063 in Q1-2016 to 114,317 as of Q4-2020. Over the course of the demonstration, the population of beneficiaries with SUD grew 23 percent (92,642 in Q1-2018 to 114,317 in Q4-2020). Individuals with a newly initiated SUD diagnosis has been steadier over the five years. In CY 2016, the average over the four quarters was 675 beneficiaries; in CY 2020, the average over the four quarters was 790.

Exhibit 8
Medicaid Beneficiaries with SUD, by Quarter, CY 2016 - CY 2020





Overall, Medicaid members with a SUD diagnosis represented 6.2 percent of the total Medicaid population at the start of the demonstration in February 2018. By the end of the first SUD demonstration period in December 2020, these members represented 6.5 percent of total enrollees.

Exhibit 9 on the next page compares the percent of total enrollees with SUD against the overall Medicaid population across a number of subpopulations. As expected, non-elderly adults represent approximately half of total Medicaid enrollment, but more than 12 percent of non-elderly adults have a SUD diagnosis. Dual eligibles, the criminally involved, and beneficiaries enrolled in the MRO benefit are also over-represented within the total population with SUD compared to their proportional enrollment

in Medicaid overall (i.e., each subpopulation has a higher percentage of its members with SUD than the statewide percentage shown at the top of the exhibit). The FSSA maps each of Indiana's 92 counties into one of eight regions shown in the exhibit. There has been modest change over the demonstration period of the percentage of the Medicaid population with SUD at the region level, but all regions did see an increase. Medicaid enrollees in the East Central, Southwest, and Southeast regions are over-represented in the percentage with SUD compared to the statewide average.

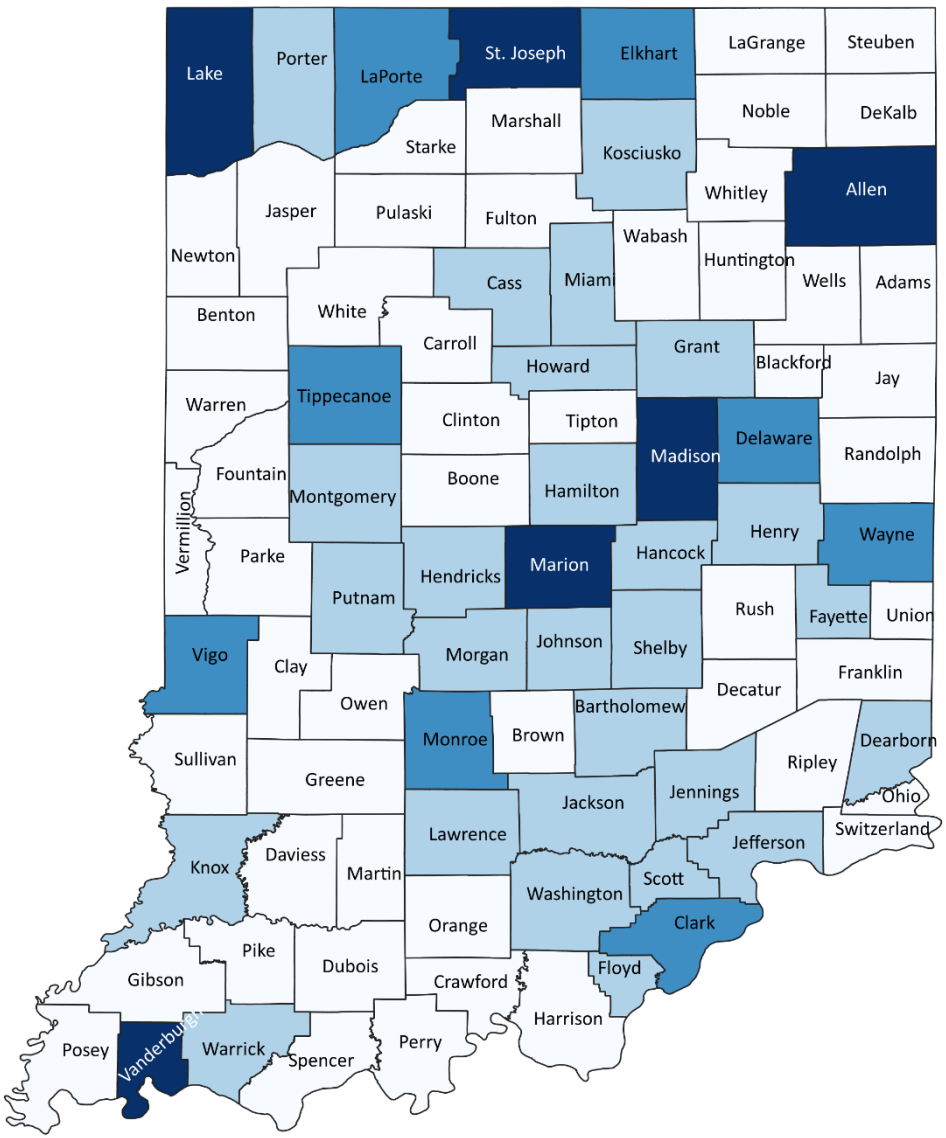
Exhibit 9
Comparison of Medicaid Members with SUD Diagnoisis to Total Enrollment

	February 2018 start of demonstration period			December 2020 end of demonstration period		
Category	**Total Enrollment**	**Percent of Total Enrolled**	**Percent of Total Enrolled with SUD**	**Total Enrollment**	**Percent of Total Enrolled**	**Percent of Total Enrolled with SUD**
Total Demonstration Population	**1,479,615**	**100.0%**	**6.2%**	**1,768,040**	**100.0%**	**6.5%**
By Age Group						
Age Less than 18	682,021	46.1%	0.5%	744,466	42.1%	0.3%
Age 18 to 64	693,346	46.9%	12.4%	899,695	50.9%	12.0%
Age 65 and Over	104,248	7.0%	2.8%	123,879	7.0%	3.7%
By Cohort Population						
Dual Eligible	139,958	9.5%	7.0%	154,786	8.8%	7.6%
Pregnant	30,615	2.1%	5.5%	50,000	2.8%	6.4%
Criminally Involved	6,597	0.4%	7.7%	4,780	0.3%	7.2%
MRO	41,290	2.8%	16.6%	45,242	2.6%	19.0%
By FSSA Region						
Northwest	192,804	13.0%	5.0%	222,042	12.6%	5.1%
North Central	129,899	8.8%	2.9%	152,652	8.6%	2.8%
Northeast	162,746	11.0%	5.7%	197,275	11.2%	5.9%
West Central	110,129	7.4%	5.7%	130,064	7.4%	6.3%
Central	473,723	32.0%	5.6%	575,984	32.6%	5.9%
East Central	132,971	9.0%	7.2%	156,655	8.9%	8.4%
Southwest	147,762	10.0%	8.5%	177,387	10.0%	8.8%
Southeast	128,810	8.7%	10.3%	155,742	8.8%	10.4%

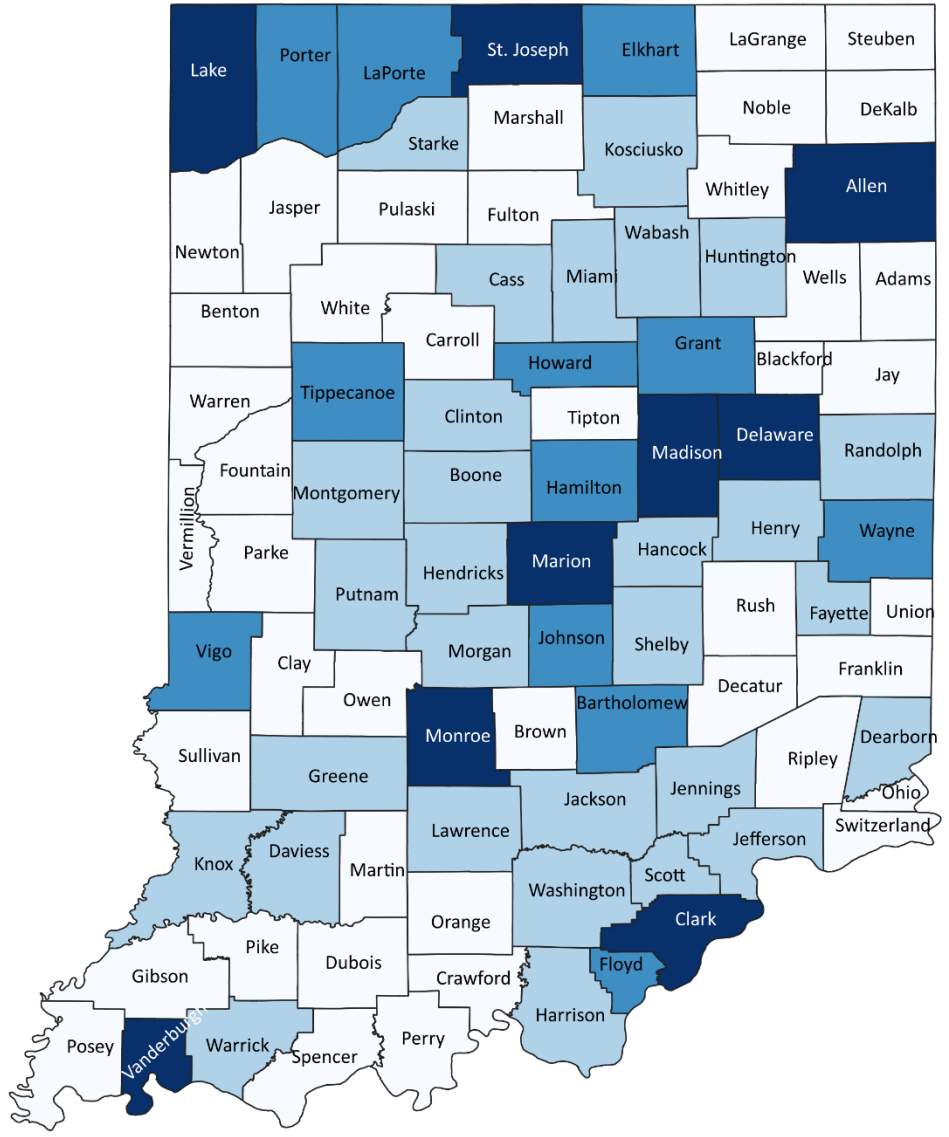
Exhibit 10 on the next page shows two heat maps at the county level. The left side shows the count of members with SUD as of December 2018, the right side is as of December 2020. Notable changes between the two maps are increases in the SUD population in Porter County in the Northwest; Wabash County in the Northeast; Delaware County in the East Central Region; Johnson, Bartholomew, and Monroe Counties just south of Marion County (Indianapolis); and Clark and Floyd Counties in the Southeast.

Exhibit 10
Heat Maps of the Number of Medicaid Beneficiaries with a SUD Diagnosis by County
February 2018 Compared to December 2020

February 2018



December 2020



Number of Individuals with SUD Utilization
Up to 500 | 501 - 1,500 | 1,501 - 2,500 | More than 2,500

SECTION C: Evaluation Questions and Hypotheses

Defining Relationships: Aims, Primary Drivers and Secondary Drivers

Burns & Associates, a Division of Health Management Associates (HMA-Burns) is serving as the Independent Evaluator for this demonstration. HMA-Burns examined the relationships between the CMS goals and FSSA's interventions included in the approved demonstration and SUD Implementation Plan. HMA-Burns constructed two driver diagrams identifying primary and secondary drivers of two principle aims: 1) reduction in overdose rate; and 2) reduction in per capita cost. The driver diagrams summarized in Exhibits 11 and 12 on the following two pages are part of the approved Evaluation Design Plan.

HMA-Burns chose overdose deaths as the first aim because it is a measurable health outcome. CMS goals related to improved quality of care were determined to all have the potential to contribute to a reduction in overdose deaths and, therefore, are included as primary drivers. In turn, the specific actions described in the Implementation Plan which would be designed to improve these measures of quality of care were considered as secondary drivers.

Reductions in per capita costs of the SUD population is the second defined aim based on CMS interest on whether the investments in SUD services made as part of the demonstration result in demonstrable reductions in non-SUD services spending. Similar to the approach above, HMA-Burns identified relationships between goals related to improving physical health and reductions in the use of acute care services as the key primary drivers of achieving a reduction in overall spending, net of SUD investments.

In order to translate these aims as well as primary and secondary drivers into measurable results, HMA-Burns compared these items against the measures included in the FSSA's Monitoring Protocol and identified whether new measures were needed. HMA-Burns found that existing, nationally-recognized measures were available for the aims and primary drivers; moreover, the specifications and data sources were already described as part of FSSA's CMS-approved Monitoring Protocol.

To fill gaps in measuring secondary drivers, HMA-Burns added custom measures where needed. These measures were used as targets such that performance during the demonstration period was considered against the pre-demonstration period.

Conversely, pandemic related programmatic and service delivery changes resulted in a lack of sufficient data to compute the following measures. Further discussion can be found in Section E.

- Average clinical risk score group
- Average turnaround time for authorization decisions
- For denied authorizations, the percentage of denials based on application of medical necessity criteria
- For denied authorizations, the percentage of denials in which the specific reason/criteria were cited to requesting provider
- Rate of participation in FSSA Gold Card Program Provider satisfaction with Gold Card application process
- Rate of beneficiaries who received ASAM service within two months following screening and ASAM designation
- Percent of all SUD providers reporting using case management

Exhibit 11

Driver Diagram 1, Reduction in Overdose Rate

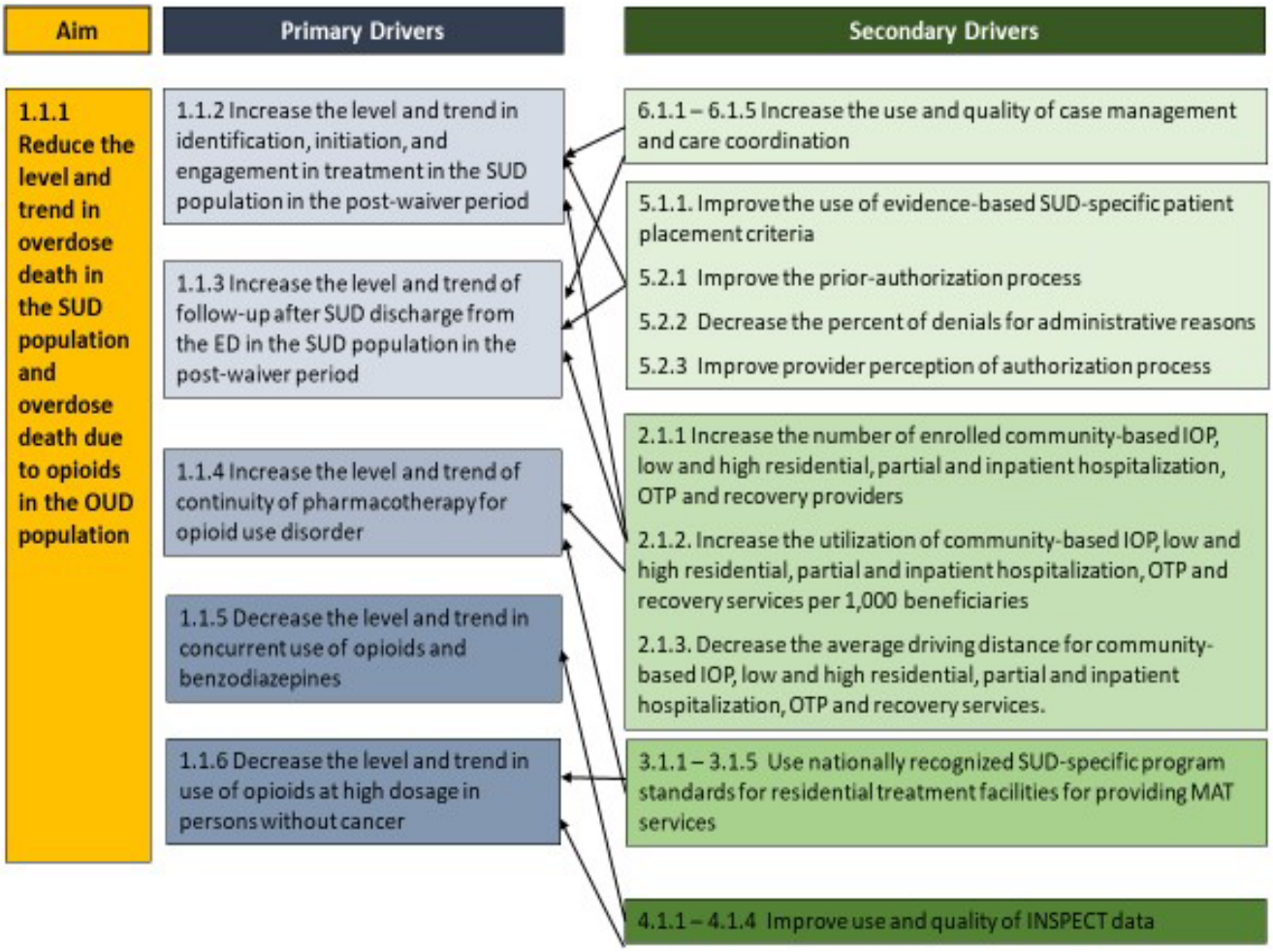
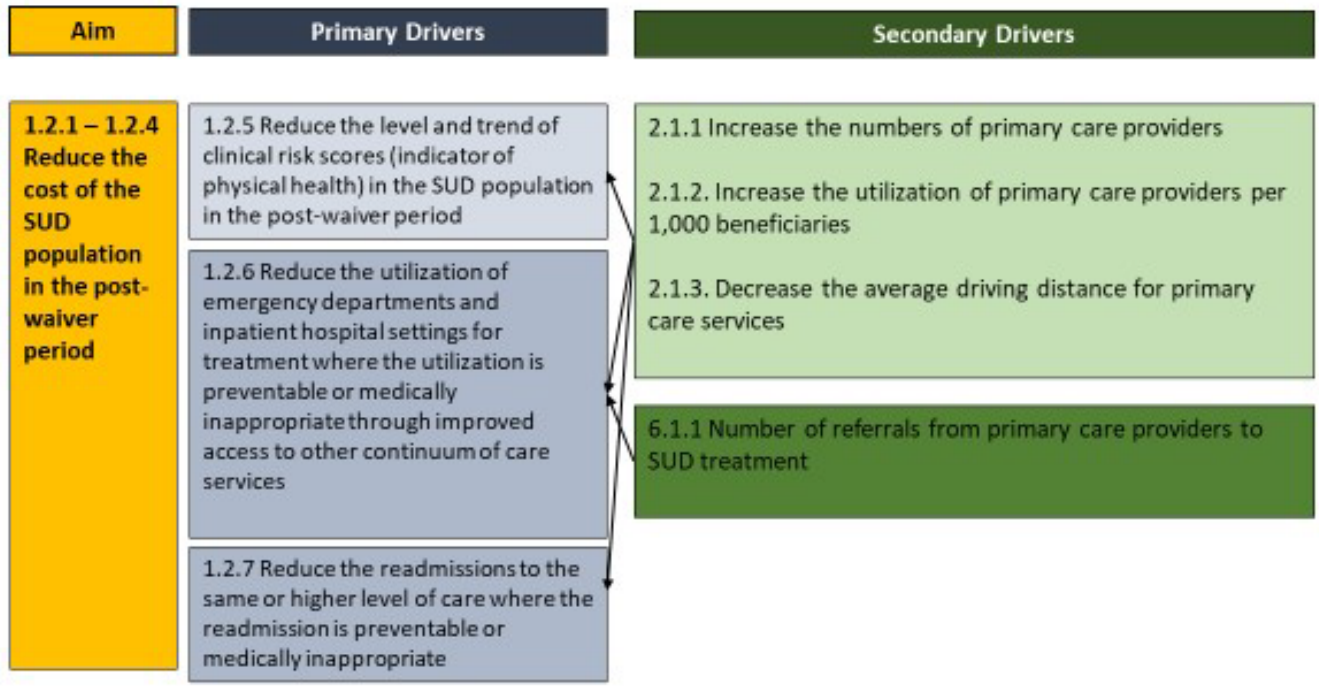


Exhibit 12

Driver Diagram 2, Reduction in Per Capita Cost



Hypotheses and Research Questions

HMA-Burns converted the aims shown above along with the primary and secondary drivers into a series of hypotheses and research questions. For each research question, measures were assigned as well as a targeted methodology. This is detailed further in Section D of the report.

Since the submission and approval by CMS of Indiana's Evaluation Design Plan, CMS has encouraged states to map hypotheses and research questions to the milestones that are shared by all SUD demonstration states. In Exhibit 13 on the next page, HMA-Burns reoriented the hypotheses and research questions shown in the original Evaluation Design Plan to map them to CMS's milestones as requested in the Interim Evaluation. HMA-Burns then mapped each measure identified in the Evaluation Design to one of the research questions shown in Exhibit 13.

Where pandemic related program and delivery changes resulted in no or insufficient data to compute metrics, the related research questions and hypothesis were not mapped to a CMS Milestone.

Additional discussion is included in Section E and involves the research questions and hypothesis listed on the subsequent page.

• Research Question 1.2.5. Does the level and trend in average CRG risk scores decrease among the SUD population in the post-waiver period? • Hypothesis 5.1.1. Are clinical criteria for authorization review for services delivered to beneficiaries with SUD being applied consistently across Indiana's Health Coverage Programs (Hoosier Healthwise, Healthy Indiana Plan, Hoosier Care Connect, and Traditional Medicaid)?	• Research Question 5.2.3. Is provider administrative burden associated with PA requests cited as a perceived barrier to access to care? • Research Question 6.1.1. Does the proportion of beneficiaries receiving ASAM designation who had a claim in that ASAM level within the next two consecutive months following the month of ASAM assignment increase over time?

Exhibit 13
Mapping Hypotheses and Research Questions to CMS Milestones

Hypothesis	Research Questions	CMS Milestone
Key health outcomes improve in the SUD population in the demonstration period.	Does the total number and rate of overdose deaths decrease among Indiana Medicaid beneficiaries in the demonstration period?	no specific milestone
	Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?	6
	Does the level and trend of follow-up after discharge from the Emergency Department (ED) for SUD increase among the SUD population in the demonstration period?	6
	Does the level and trend in continuity of pharmacotherapy for opioid use disorder increase among the OUD population in the demonstration period?	1
	Does the level and trend in concurrent use of opioids and benzodiazepines decrease in the demonstration period?	5
	Does the level and trend in the rate of use of opioids at high dosage in persons without cancer decrease in the demonstration period?	5
Cost of care decreases in the SUD population in the demonstration period.	Does the rate in per capita expenditures for all services among the SUD population decrease in the demonstration period?	no specific milestone
	Does the rate in per capita expenditures for SUD services among the SUD population increase in the demonstration period?	no specific milestone
	Does the rate in per capita expenditures for total services except SUD services among the SUD population decrease in the demonstration period?	no specific milestone
	Does the level and trend in the percentage of SUD facilities who report that they accept Medicaid as a payer increase in the demonstration period?	4
	Does the rate of potentially preventable emergency department visits among beneficiaries with SUD decrease during the demonstration period?	no specific milestone
Access to care improved in the SUD population in the post-waiver period.	Does the number of Medicaid SUD providers increase during the demonstration period for each ASAM level of care?	4
	Do the number of locations and residential treatment beds for SUD licensed by the state increase during the demonstration?	3
	Does the number of users of SUD services in the SUD population increase in the demonstration period for each ASAM level of care?	1
	Does the average driving distance for SUD services and primary care decrease among the SUD population in the demonstration period?	1
Prior authorization requirements do not negatively impact access to residential or inpatient hospital services.	Does the rate of prior authorization requests for SUD services that are denied decrease during the demonstration period?	2
	Are denied prior authorization requests for SUD services primarily being denied for lack of medical necessity or for administrative reasons during the demonstration period?	2
Care coordination and transitions between ASAM levels of care will increase in the post-waiver period.	Does the rate for SUD clients who use ASAM level 1 and 2 services after discharge from an ASAM level 3 or 4 service increase compared to the rate prior to receiving the ASAM level 3 or 4 service?	6
	Does the ratio of beneficiaries with a SUD diagnosis who are receiving care coordination increase over time?	6

SECTION D: Methodology Used in Assessment

Evaluation Design

The evaluation is conducted on Medicaid beneficiaries with SUD during the pre- and post-demonstration period. The approved Evaluation Design Plan is a mixed-methods approach, drawing from a range of data sources, measures, and analytics to best produce relevant and actionable study findings. The approved Evaluation Design Plan reflects a range of data sources, measures and perspectives. It defines the most appropriate study population and sub-populations and describes the six analytic methods included in the evaluation design. The Evaluation Design Plan approved by CMS on June 6, 2019 appears in Appendix A, with modifications found in Section E of this report.

The six analytic methods used by the evaluators include:

1. single segment interrupted time series (ITS),
2. descriptive statistics
3. onsite reviews,
4. desk reviews,
5. provider and beneficiary surveys, and
6. facilitated interviews.

The table below maps the analytic methods used to address each hypothesis posed.

Hypothesis	ITS	Descriptive Statistics	Onsite Reviews	Desk Reviews	Surveys	Interviews
Key health outcomes improve in the SUD population in the demonstration period	X	X				
Cost of care decreases in the SUD population in the demonstration period	X	X		X		
Access to care improved in the SUD population in the post-waiver period		X		X	X	X
Prior authorization requirements do not negatively impact access to residential or inpatient hospital services		X	X	X		X
Care coordination and transitions between ASAM levels of care will increase in the post-waiver period			X	X		X

Target and Comparison Population

The target population is any Indiana Medicaid beneficiary with a SUD diagnosis in the study period. HMA-Burns used the specification developed by CMS in its SUD Monitoring Metric #3 to identify beneficiaries with SUD. This population comprises the demonstration population. HMA-Burns also developed sub-populations which were tracked and reported on in both the Interim Evaluation and the Mid-Point Assessment. The same sub-populations are being reported on in this Summative Evaluation as well.

1. **Managed Care Model:** Includes the target population enrolled in one of the managed care programs
2. **OUD**: Includes the target population who meet the criteria for having an opioid use disorder (OUD) diagnosis
3. **Dual eligible**: Includes the target population who meet criteria for being dually-eligible for both the Medicare and Medicaid population
4. **Pregnant**: Includes the target population who meet the criteria for having a pregnancy
5. **Criminally Involved**: Includes the target population who meet the criteria for being criminally involved. HMA-Burns used Indiana Department of Correction data to match against the demonstration population to identify whether or not a person was incarcerated at any time in the calendar year.
6. **MRO**: Includes the target population who meet criteria for being eligible to receive Medicaid Rehabilitation Option services in the calendar year
7. **Region**: The eight regions that have customarily been used by the FSSA match each of Indiana's 92 counties to a region in the state. Individuals in the demonstration were matched to a home county and then a region based on their zip code on a base date in the calendar year. A map that shows the match between each county and region appears in Appendix B.

Evaluation Period

Metrics for the demonstration population and sub-populations are computed for a pre- and post-demonstration period. The pre-demonstration period is defined as January 1, 2016 to January 31, 2018 for monthly measures and CY 2016 and CY 2017 for annual measures. The demonstration period is defined as February 1, 2018 to December 31, 2020. For ITS and other descriptive statistics, the period from February 1, 2018 to February 28, 2020 was used for monthly measures and CY 2018 and CY 2019 for annual measures. While the initial demonstration evaluation design intended for 2015 data to be included in the pre-demonstration period, the independent evaluators did not include it as the conversion from ICD-9 to ICD-10 took place during this year. This is discussed further in Section E.

There are two items of note. First, the demonstration approval was given "off-cycle" effective February 1, 2018. For annual measures, HMA-Burns has assumed the entire year of CY 2018 as part of the demonstration year. Second, due to the significant changes in utilization during the public health emergency (PHE), results are reported for many measures for CY 2020; however, for the statistical tests (e.g. ITS, chi square, or T-tests), the cutoff date for use was February 28, 2020 for monthly measures. This controls for any atypical results that occurred during the PHE. For annual measures, the results from CY 2020 were not utilized in the analysis. Only the first two years of the demonstration—CY 2018 and CY 2019—were used in statistical tests. While CY 2020 data was not used in the analysis, CY 2016 through CY 2020 metric results for each of the utilization metrics in included in Appendix H.

Evaluation Measures

HMA-Burns is reporting on 55 measures, each of which has been mapped to a CMS Milestone. Where relevant, if CMS has mapped one of its SUD measures that states report on as part of quarterly monitoring to a CMS milestone, HMA-Burns has adopted this mapping as well. For measures other than those that are part of quarterly monitoring to CMS, HMA-Burns has selected the most appropriate milestone to map the measure to. In some instances, both for CMS-defined measures and other measures, there is not an appropriate milestone to map to. These measures appear on the last row of the table below under "Other" measures. Metrics eliminated from the study based on insufficient data are discussed in Section E of the report.

CMS Milestone	Measures in CMS Monitoring Reports	Measures Defined by HMA-Burns	Measures Defined by Another Source	Total Measures
Access to critical levels of care for SUD treatment	8	2	0	**10**
Use of evidence-based, SUD-specific patient placement criteria	2	2	0	**4**
Use of nationally recognized SUD-specific program standards for residential treatment	0	2	0	**2**
Sufficient provider capacity at critical levels of care	0	8	0	**8**
Implementation of comprehensive treatment and prevention strategies to address opioid abuse	4	0	0	**4**
Improved care coordination and transitions between levels of care	10	1	0	**11**
Other Measures not associated to a specific milestone	7	6	3	**16**
TOTAL	**31**	**21**	**3**	**55**

In Section F of the report, each measure is shown on a separate one-page summary of findings report. The measures are organized by CMS Milestone. As an introduction to each milestone, a summary exhibit is provided which lists out each measure, the desired outcome, if the outcome was met or not, and if the result was statistically significant. The test applied for statistical significance is also cited.

Data Sources

HMA-Burns used a number of data sources to conduct the evaluation. The three main components used to assess the effectiveness of the demonstration against each CMS Milestone were computation of measures, assessment of FSSA's completion of its SUD Implementation Plan, and stakeholder feedback. The data sources used for each component are identified below.

Computation of Measures

The information source to compute the metrics defined by and reported to CMS is the same as that used by FSSA to submit its SUD metrics to CMS in its quarterly SUD waiver monitoring report. The HMA-Burns team receives and intakes fee-for-service claims, managed care encounters, member enrollment, and provider enrollment data delivered from the State's Enterprise Data Warehouse (EDW) on a monthly basis. The data is validated by the HMA-Burns team upon intake and trended against information received in prior months across multiple dimensions. The HMA-Burns team has built a comprehensive database that incorporates utilization and enrollment data going back to CY 2016 up to the present.

Claims and encounters is the primary source for computing measures defined by CMS. Some CMS measures, as well as many measures defined by HMA-Burns, use a combination of claim/encounter, member enrollment, and provider enrollment files. An example of this is the HMA-Burns measure to track the average distance travelled by Medicaid members to specific services. HMA-Burns joined data on claims and encounters with the Medicaid member enrollment file to map the physical location where providers render services and the home address of individual Medicaid beneficiaries. Driving distance was computed for each trip using external software.

Data from the provider file was supplemented in some instances by primary research conducted by the HMA-Burns evaluation team. Using the average distance example from above, because the provider ID on file in the EDW may have a provider entity's corporate office assigned and not individual locations where services are rendered, the HMA-Burns team conducted internet research of provider websites and utilized reports from DMHA that track residential providers to use the correct service address for the average distance measure. This process was also used to plot the locations of providers on maps shown in exhibits in Section F.

For other measures defined by HMA-Burns, the evaluators used primary data collected from MCEs for Medicaid beneficiaries enrolled in managed care. This was completed for the two SUD authorization focus studies conducted during the evaluation in which metrics were examined such as authorization approval and denial rates, average turnaround time for authorization decisions, and the percentage of denied requests based on the application of medical necessity criteria. Additional data was collected directly by evaluation team members through the onsite review of authorization records.

Another focus study conducted by the evaluation team relates to the transition of care for SUD members across ASAM levels. This study was conducted as a desk review using data from the State's EDW. HMA-Burns also requested data from the MCEs to determine which of their members who used inpatient hospital and residential treatment services were enrolled in case or care management with the MCE.

Two other data sources were used for specific measures. HMA-Burns used data from the National Survey of Substance Abuse Treatment Services (N-SSATS) to determine the percentage of SUD providers in Indiana who accepted Medicaid in each study year examined. HMA-Burns used the Indiana DMHA's monthly tracking report to assess the change in licensed residential treatment locations and beds over the course of the demonstration period.

Implementation Plan Action Items

HMA-Burns identified all of the items identified in FSSA's SUD Implementation Plan to determine where action had or had not yet been taken on each item. The assessment team conducted a desk review of materials released by FSSA prior to and after the waiver implementation date. After review of these materials, interviews were conducted with key staff at FSSA to confirm our assessment of each of the planned implementation activities.

Qualitative Feedback from Key Stakeholders

The HMA-Burns team collected feedback from a variety of stakeholders to gain perceptions about the implementation of the SUD waiver, as well as their perspectives related to SUD service delivery for Medicaid beneficiaries. Feedback was collected through interviews that were conducted in-person for the Interim Evaluation and Mid-Point Assessment. For the Summative Evaluation, interviews were conducted remotely via Zoom due to the ongoing public health emergency.

For the Mid-Point Assessment, HMA-Burns requested from the FSSA the current list of providers licensed to provide ASAM 4.0, 3.5 and 3.1 services as of September 30, 2019 with their contact information. The evaluation team outreached to each of the 38 providers on this list to request participation in an interview one-on-one at their location (when the interview was conducted in-person). A total of 20 providers agreed to participate. Most interviews were conducted in-person, but a few were conducted by phone due to scheduling logistics. All of the interviews were completed in November and December of 2019.

For the Summative Evaluation, HMA-Burns broadened the provider pool so that it would span the ASAM continuum by using providers identified as delivering services in CY 2020 using the specifications for CMS's Metrics #7 through #12 to identify actively billing SUD providers. For each of the metrics, the top 20 providers by metric were identified and consolidated into one unduplicated provider list across the metrics. HMA-Burns outreached to a total of 61 providers which represented 67 percent of the dollars paid for SUD services in CY 2020.

Three options were offered to providers to give feedback:

1. A link to an 11-question online survey. For most questions on the survey, providers selected from a pre-determined list of responses. There was an opportunity to provide written feedback as well. Providers were given the option of remaining anonymous. A total of 26 providers completed the online survey, with 13 providing the name of the organization.
2. Participate in an interview over Zoom with the evaluation team. Each provider was asked to provide feedback on the same set of questions. A total of eight providers were interviewed.
3. Both options. Two providers completed the online survey and participated in an interview.

For both the Mid-Point and Summative interviews, appointments were set in advance so that the appropriate provider representatives could be present. Each provider was sent the same set of

questions in advance of their interview. Although the evaluators covered the topics in each question, providers were encouraged to provide feedback on any other topic related to the SUD waiver as well.

The providers were given discretion as to who from their organization attended the interview. Typically, two to four representatives attended. The HMA-Burns team consisted of two members, both of whom participated in the Mid-Point and Summative interviews. Interviews were set for 90 minutes in duration for the Mid-Point and 60 minutes for the Summative; most interviews went this entire time, if not longer.

The list of questions sent to providers in advance of each interview appear in Appendix C.

The online survey tool released to providers appears in Appendix D.

When the initial Mid-Point Assessment appointments were made with providers, HMA-Burns also requested the assistance from providers, where possible, to coordinate short interviews with some of their Medicaid clients. Many providers were able to assist in this manner. The interviews with clients who received SUD treatment were held separate from the provider interview. Interviews were conducted one-on-one with the HMA-Burns representatives and typically lasted ten minutes. Clients were told upfront that our questions pertained mostly to access to services. Individuals were told that they were not obligated to reveal personal information or their full name, although many did. Nonetheless, client names were not recorded. A total of 21 clients were interviewed for the Mid-Point Assessment.

The PHE posed unique challenges with conducting in-person interviews with Medicaid clients in preparing the Summative Evaluation. In response to these challenges, the HMA-Burns team created a 4-question online survey to augment the feedback received during the Mid-Point Assessment. Providers were asked to assist HMA-Burns with outreaching to members by making the survey available to their Medicaid clients. Survey respondents were totally anonymous. Despite repeated requests for assistance from providers, only one client responded to the online survey and the results were incorporated into the feedback received during the Mid-Point Assessment.

The list of questions covered in client feedback interviews for both the Mid-Point Assessment and Summative Evaluation appear in Appendix E**.**

For both the Mid-Point Assessment and Summative Evaluations, HMA-Burns conducted one interview session with all MCEs contracted with the FSSA. The MCEs were asked to ensure that representatives that regularly communicate with SUD providers participate in this meeting. Each MCE complied with this request.

Similar to the provider interviews, the MCEs were given questions in advance of the meetings so that they could be prepared for a meaningful discussion. Each session was 90 to 120 minutes in length. Both of the HMA-Burns team members who conducted the provider and client interviews attended the MCE meeting. There was equal participation and feedback from the representatives from all MCEs.

The list of questions sent to the MCEs in advance of their Mid-Point and Summative interviews appear in Appendix F.

The HMA-Burns team mapped the themes identified by each stakeholder group (service providers, beneficiaries, and MCEs) to the six milestones set out by the FSSA in its SUD waiver. Summaries of responses related to each CMS Milestone appear in Section F.

Analytic Methods

Among the 55 measures examined; tests of significance were run on 35 measures. The table below shows the type of test applied to each measure. Results of each test appear in Appendix G.

Measures where Interrupted Time Series was Applied	
1	Users of Any SUD Treatment
2	Users of Outpatient Services
3	Users of Intensive Outpatient and Partial Hospitalization
4	Users of Residential and Inpatient Services
5	Users of Withdrawal Management
6	Users of Medication-Assisted Treatment
7	Rate of per capita expenditures for SUD services among the SUD population
8	Rate of per capita expenditures for SUD services in IMDs among the SUD population
9	Rate of per capita expenditures for all services among the SUD population
10	Rate of per capita expenditures for all services except SUD services among the SUD population
11	Rate of inpatient stays for SUD per 1,000 Medicaid beneficiaries
12	Rate of emergency department visits for SUD per 1,000 Medicaid beneficiaries
Measures where Chi-square was Applied	
13	Continuity of Pharmacotherapy for Opioid Use Disorder
14	Use of Opioids at High Dosage in Persons Without Cancer
15	Use of Opioids from Multiple Providers in Persons Without Cancer
16	Concurrent Use of Opioids and Benzodiazepines
17	Initiation of Alcohol and Other Drug Dependence Treatment, Total AOD Population
18	Initiation of Alcohol and Other Drug Dependence Treatment, Alcohol Abuse Only
19	Initiation of Alcohol and Other Drug Dependence Treatment, Opioid Abuse Only
20	Initiation of Alcohol and Other Drug Dependence Treatment, Abuse Other than Alcohol or Opioid
21	Engagement of Alcohol and Other Drug Dependence Treatment, Total AOD Population
22	Engagement of Alcohol and Other Drug Dependence Treatment, Alcohol Abuse Only
23	Engagement of Alcohol and Other Drug Dependence Treatment, Opioid Abuse Only
24	Engagement of Alcohol and Other Drug Dependence Treatment, Abuse Other than Alcohol or Opioid
25	Follow-up After ED Visit for Alcohol or Other Drug Dependence, 7 day
26	Follow-up After ED Visit for Mental Illness, 7 day
27	Rate of inpatient hospital readmissions among beneficiaries with SUD
28	Rate of access to preventive health services for adult Medicaid beneficiaries with SUD
Measures where T-test was Applied	
29	Rate of overdose deaths per 1,000 adult Medicaid beneficiaries
30	Number of Medicaid Beneficiaries Treated in an IMD for SUD
31	Average Length of Stay in IMDs
32	Number of SUD providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
33	Number of Primary Care providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
34	Utilization of SUD services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
35	Utilization of Primary Care services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis

SECTION E: Methodological Limitations

Limitations

The Evaluation Team believes that the approved Evaluation Design Plan provides more than adequate rigor in the observational study design, especially when considering the range of supplemental evaluation methods that were included. The study mitigates known limitations to the extent feasible drawing upon the range of options to fill gaps in the observational study design. The primary source data used in the study was information obtained from the FSSA's Enterprise Data Warehouse for member enrollment, provider enrollment, and service utilization through claims and encounters data. HMA-Burns conducted an extensive review to ensure the accuracy and completeness of the data provided. Although no inherent limitations were found in using these data, it should be noted that the primary source for utilization comes from MCE encounter submissions to the state. Since more than 80 percent of Indiana's Medicaid population is enrolled in managed care, there is the possibility that some utilization is missing from the managed care population in the study.

The HMA-Burns team did identify the following items that pose limitations in this evaluation:

1. *Length of time of the evaluation period*. Indiana's demonstration was truncated from the usual approval period of 60 months to 35 months. The pre-demonstration period serves as a benchmark to compare to, but only for services that were available during this time. For new services, such as ASAM 3.1 and 3.5 residential treatment, the first year of the demonstration serves as the benchmark year. It is not expected that the two-year period after the benchmark year will be sufficient time to observe changes in all measures of interest. While the initial demonstration evaluation design intended for 2015 data to be included in the pre-demonstration period, the independent evaluators did not include it as the conversion from ICD-9 to ICD-10 took place during this year. An examination of the mapping of ICD-9 to ICD-10 codes found that only 45% of the ICD-10 SUD Value Set codes had a 1:1 conversion to ICD-9. The remaining 55% of the ICD-10 codes mostly matched to multiple ICD-9 codes, with one code having no match at all.

2. *Small sample size*. For some measures, the entire demonstration population studied was insufficient to use statistical power to detect a difference. HMA-Burns identifies the specific measures where this is a concern in Section F. In other situations, the demonstration population and many sub-populations studied had sufficient sample size to detect trends, while other sub-populations had a limited sample to conduct meaningful evaluation. As a whole, the Medicaid population of individuals with SUD age 18 and under was too small to examine in isolation; therefore, findings are not reported with a stratification by age. The criminally involved subpopulation also had insufficient sample size to assess trends for many measures. This is cited on the report dashboards in Section F when it applies.

3. *Exogenous factors may impact results*. Many of the outcome measures are multi-dimensional and influenced by social determinants of health. While changes in the demonstration period related to access to care may be one dimension of various outcomes of interest and may contribute to improvements, it may be difficult to achieve statistically significant findings in the

absence of data on other contributing dimensions such as social determinants of health (e.g., housing, employment and previous incarcerations).

4. *Public health emergency*. The obvious limitation in this evaluation is the impact on service utilization and provider supply during the public health emergency period. HMA-Burns used the cutoff date of February 28, 2020 for conducting any statistical significance tests on measures to mitigate any impact that the public health emergency caused. For interrupted time series analyses, 50 months of data were used—25 months in the pre-demonstration period (January 2016 to January 2018) and 25 months in the demonstration period (February 2018 to February 2020). For chi square and t-tests that were used for measures reported annually, two years of data were used in the pre-demonstration period (Calendar Years 2016 and 2017) and two years were used in the demonstration period (Calendar Years 2018 and 2019). Although the demonstration did not begin until February 1, 2018, for purposes of these tests, HMA-Burns considered Calendar Year 2018 as a demonstration year. Results from Calendar Year 2020 were tracked for all measures examined but are often not reported on in Section F due to the significant disruption in utilization patterns caused by the public health emergency. However, data through Calendar Year 2020 for all utilization metrics can be found in Appendix H of this report.

5. *Modifications to Approved Evaluation Design.* Based upon feedback from CMS in development of the approved Interim Evaluation, it was requested that the Summative Evaluation be reorganized to align the demonstration goals, initiatives and drivers to the hypotheses, research questions and metrics. In order to accommodate the reorganization, it was stated that HMA-Burns may need to deviate from the approved evaluation design[3]. Modifications to the approved design were driven largely by the pandemic and resulting programmatic and service delivery changes. As a result, the following research questions and hypothesis were eliminated due to lack of sufficient or any data at all to compute the associated metrics.

    - Research Question 1.2.5. Does the level and trend in average CRG risk scores decrease among the SUD population in the post-waiver period? This research question and its associated metric were eliminated based on the significant disruption to utilization patterns during the pandemic.
    - Hypothesis 5.1.1. Are clinical criteria for authorization review for services delivered to beneficiaries with SUD being applied consistently across Indiana's Health Coverage Programs (Hoosier Healthwise, Healthy Indiana Plan, Hoosier Care Connect, and Traditional Medicaid)? This hypothesis and associated metrics were eliminated due to lack of data as prior authorization requirements were suspended during the pandemic.

[3] Interim Evaluation of Indiana's Section 1115 Substance Use Disorder Waiver, July 10, 2020, as approved by CMS and accessed at: https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/in-healthy-indiana-plan-final-sud-interim-eval-rpt-07092020.pdf.

- Research Question 5.2.3. Is provider administrative burden associated with PA requests cited as a perceived barrier to access to care? This research question and its associated metrics were eliminated as Indiana did not implement the Gold Card Program.
- Research Question 6.1.1. Does the proportion of beneficiaries receiving ASAM designation who had a claim in that ASAM level within the next two consecutive months following the month of ASAM assignment increase over time? The research question and its associated metrics were eliminated when FSSA determined that a consolidated ASAM, CANS and ANSA tool was not feasible, and providers were to continue to use the CANS or ANSA tool along with the ASAM tool.

6. *Modifications to Statistical Analysis.* Changes in the statistical analysis performed were required for some select annual measures which could not be recalculated into monthly data points across the pre and post intervention time frames. Exhibit 50, which measures the use of opioids in high dosages for persons without cancer was one of these select annual measures. Due to the measure's technical specifications, this metric cannot be properly calculated as a monthly metric required to assume the needed level of observations for ITS calculations and modeling. Chi-square tests for significance can be appropriately applied in these scenarios comparing the pre and post intervention.

SECTION F: Results

The findings from HMA-Burns' assessment of Indiana's SUD demonstration waiver are organized by milestone and include the following components:

1. Review of the measures as defined by CMS in Indiana's SUD monitoring protocol and measures defined in the Evaluation Design Plan;
2. Status of the State's efforts to date in completion of the items identified in its SUD Implementation Plan; and
3. Feedback from stakeholders.

In this section of the report, each CMS milestone serves as a heading and each component mentioned above serves as a subheading. There is a sixth heading at the end of Section F to report on measures that were included in the Evaluation Design Plan but cannot be mapped to a specific CMS milestone.

At the start of each subsection that reports on measures, there is a summary table that lists each measure reviewed that was mapped to the CMS milestone. The table shows the desired outcome for each measure, if the desired outcome was met, and if the results were found to be statistically significant (when testing for significance was conducted). The test used for statistical significance is also shown, where applicable.

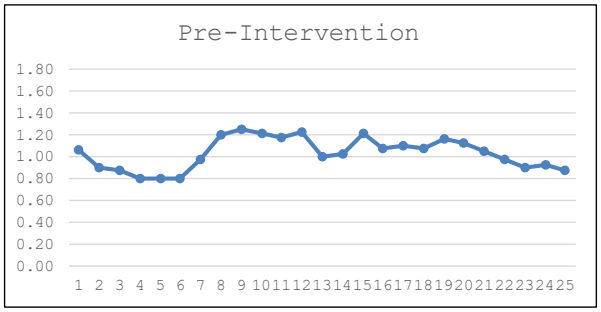
After the summary table, each of the 55 measures examined appears on a one-page dashboard report. Information about the research question posed, the measure and measure steward, and the data source used to analyze the measure are provided. Results are displayed graphically for the entire demonstration population. Results from any statistical testing appear below the graphical representation. Statistical significance tests were conducted at a significance level of alpha = 0.10 on the demonstration population only and not any of the sub-populations. Descriptive statistics are provided on the sub-populations for most of the measures, including a comparison of the trend for each sub-population compared to the trend for the overall demonstration population. At the bottom of each dashboard, a summary of the key findings for the measure are provided.

Interrupted Time Series (ITS) statistical tests were conducted at a significance level of alpha = 0.10. The data was collected by month as detailed in the table on the following page for both the pre-intervention and post-intervention time frames. The pre-intervention has 25 data points from January 2016 to January 2018. The post-intervention has 25 data points from February 2018 to February 2020. Also included is a plot of each of the data points used to visualize the trend within each intervention time frame. A summary box, like the table highlighted in blue, appears in the body of the report with the remaining results of ITS found in Appendix G. This summary box provides the statistical review details including the desired trend for each measure and p-values for each of the tests performed.

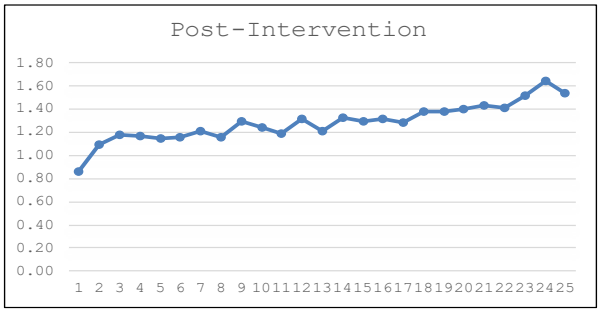
Using Metric 10 (Residential and Inpatient Services per 1,000 Medicaid Beneficiaries) as an example, the pre-intervention trend was not significant with a p-value = 0.3755. The post-intervention trend was highly significant with a p-value <0.0001. Also significant with a p-value = 0.0003 was the test comparing the post-intervention trend and the pre-intervention trend. Further, the estimate for the post-intervention trend (0.0201) is 7.17 times greater than the pre-intervention trend (0.0028) which can be interpreted that Residential and Inpatient Services are increasing at a rate more than seven times greater in the post-intervention period compared to the pre-intervention period and there is a significant difference between the two intervention trends.

Interrupted Time Series results example for Metric 10 (Residential and Inpatient Services)

Pre-Intervention			Post-Intervention		
OUTCOME	time	t	OUTCOME	time	t
1.07	201601	1	0.86	201802	26
0.90	201602	2	1.09	201803	27
0.88	201603	3	1.18	201804	28
0.81	201604	4	1.17	201805	29
0.80	201605	5	1.15	201806	30
0.80	201606	6	1.16	201807	31
0.98	201607	7	1.21	201808	32
1.20	201608	8	1.16	201809	33
1.25	201609	9	1.30	201810	34
1.22	201610	10	1.24	201811	35
1.18	201611	11	1.19	201812	36
1.23	201612	12	1.32	201901	37
1.01	201701	13	1.21	201902	38
1.03	201702	14	1.33	201903	39
1.22	201703	15	1.29	201904	40
1.08	201704	16	1.32	201905	41
1.10	201705	17	1.28	201906	42
1.08	201706	18	1.38	201907	43
1.17	201707	19	1.38	201908	44
1.13	201708	20	1.40	201909	45
1.06	201709	21	1.43	201910	46
0.98	201710	22	1.41	201911	47
0.91	201711	23	1.52	201912	48
0.93	201712	24	1.64	202001	49
0.88	201801	25	1.54	202002	50



Pre-intervention trend not significant with p-value = 0.3755.



Post-intervention trend is significant with p-value < 0.0001.

Desired Trend:	Increase	**Statistical Review:**	Interrupted Time Series	
		Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend		0.0173	0.0003	Yes
Pre-intervention trend		0.0028	0.3755	No
Post-intervention trend		0.0201	<.0001	Yes

For the assessment of SUD Implementation Plan activities, HMA-Burns inventoried all activities listed in the State's approved Implementation Plan by CMS milestone. A summary table is shown under each CMS Milestone to indicate the proposed action taken by the state, the intended completion date, if the action was completed and when, and any notes relevant to the action proposed.

For stakeholder feedback, HMA-Burns synthesized the feedback from beneficiaries, providers, and the MCEs into one summary table for each CMS Milestone. Feedback was organized by themes. For each theme, the specific feedback is cited with an indication of the constituent(s) that provided the feedback to the evaluators. HMA-Burns then gave an assessment of the feedback by segmenting it into the following categories—compliment, critique, neutral, or recommendation.

Milestone #1: Access to Critical Levels of Care for SUD Treatment

Evaluation Measures

Ten measures were examined to assess the access to levels of care for SUD treatment. In Exhibit 14 below, it shows that the desired outcome was met in eight out of the ten measures. A test for statistical significance was conducted on seven of the ten measures. For five of these measures, the outcome was statistically significant. More detailed information can be found on each measure in the pages that follow.

Exhibit 14
Summary of Findings for Metrics Mapped to CMS Milestone 1 and the Total Demonstration Population
Tests for statistical significance were conducted at a significance level of alpha = 0.10

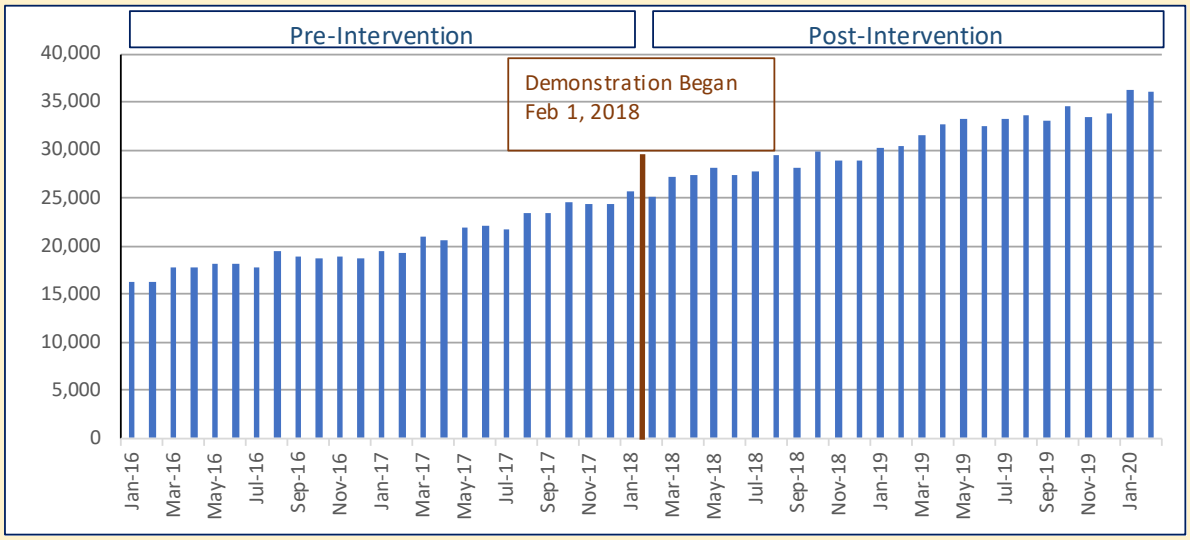
	Measure Examined	Desired Outcome	Outcome Met?	Statistical Test	Statistically Significant?	P-Value
1	Users of Any SUD Treatment	Increase	Yes	Interrupted Time Series	Yes	0.0007
2	Users of Early Intervention	Increase	No	no test run (low volume)	N/A	
3	Users of Outpatient Services	Increase	Yes	Interrupted Time Series	Yes	<.0001
4	Users of Intensive Outpatient and Partial Hospitalization	Increase	Yes	Interrupted Time Series	No	
5	Users of Residential and Inpatient Services	Increase	Yes	Interrupted Time Series	Yes	0.0003
6	Users of Withdrawal Management	Increase	Yes	Interrupted Time Series	Yes	0.0109
7	Users of Medication-Assisted Treatment	Increase	Yes	Interrupted Time Series	No	
8	Continuity of Pharmacotherapy for Opioid Use Disorder	Increase	Yes	Chi-square	Yes	
9	Proportion of SUD Providers Accepting Medicaid	Increase	Yes	no test run	N/A	
10	Average Driving Distance to SUD and Primary Care Services by Region	Decrease	No	no test run	N/A	

Exhibit 15
Results from CMS Metric #6: Any SUD Treatment

Research Question:
Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Any SUD Treatment
Measure Steward: CMS [Metric #6]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	0.1116	0.0007	Yes
Pre-intervention trend	0.3042	<.0001	Yes
Post-intervention trend	0.4159	<.0001	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration
Result for Demonstration: increase of 51.8%
Results for Subpopulations within the Demonstration:

Model	52.5%	Northwest Region	44.2%
OUD	58.5%	North Central Region	28.5%
Dual Eligible	24.0%	Northeast Region	37.0%
Pregnant Women	110.5%	West Central Region	31.7%
Criminally Involved	low sample	Central Region	57.7%
MRO	17.5%	East Central Region	63.6%
		Southwest Region	58.9%
		Southeast Region	68.4%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

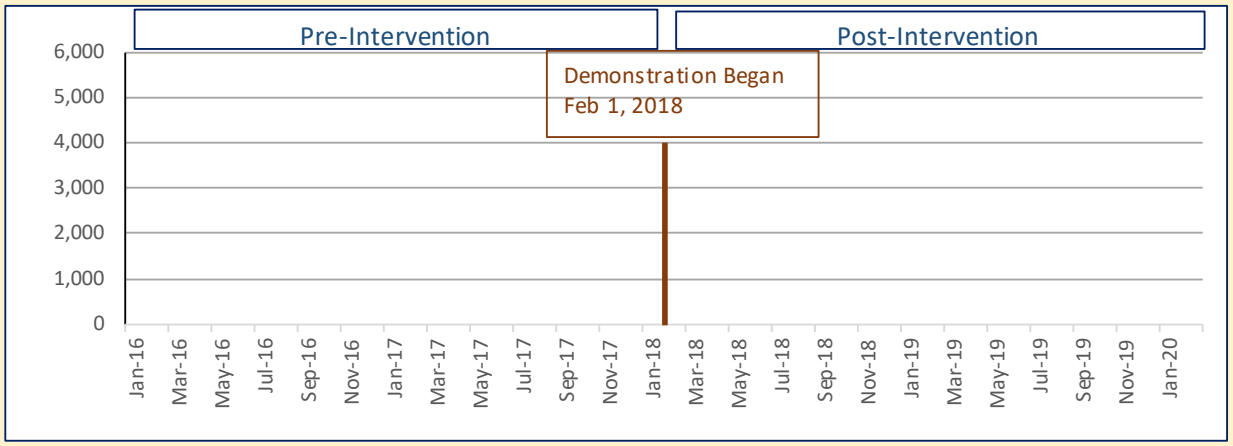
Average number of beneficiaries with SUD using any SUD service in the demonstration period was 30,925 compared to 20,373 during the pre-demonstration period, an increase of 51.8%. Each cohort population increased at least 17.5% during demonstration period.

Exhibit 16
Results from CMS Metric #7: Early Intervention

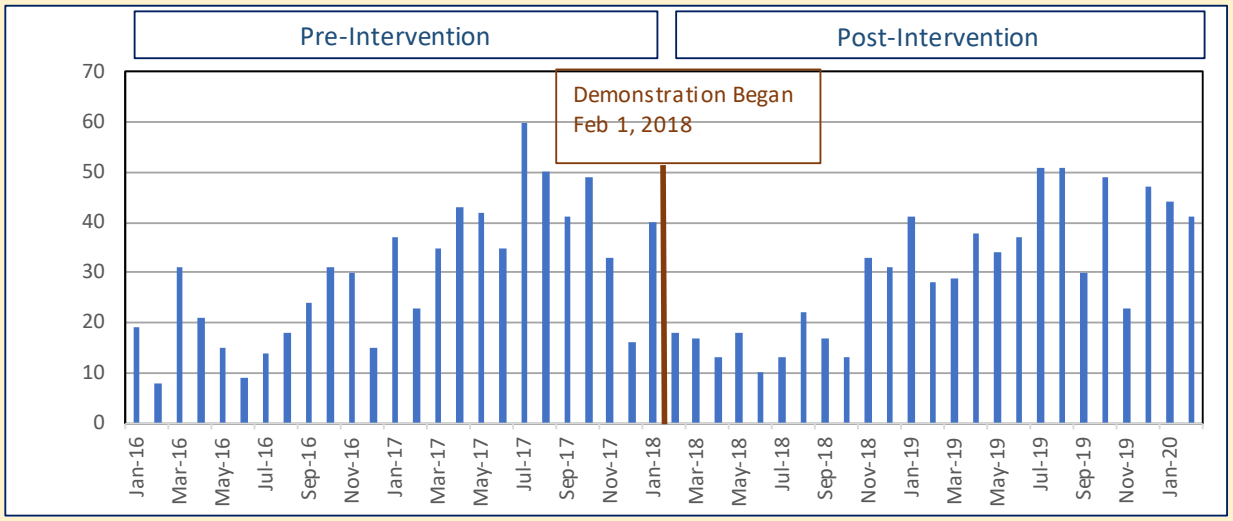
Research Question:
Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Early Intervention
Measure Steward: CMS [Metric #7]

Results for the Demonstration Population using CMS's hierarchical logic for Metrics #7-12



Results for the Demonstration Population no hierarchical logic applied



Statistical Review: No statistical tests were run on this measure

Results for Other Populations When Compared to the Demonstration Population
Because of the low sample size within the Demonstration population itself, results are not reported for the sub-populations on this measure.

When the hierarchy is applied to determine the count of Medicaid beneficiaries using early intervention services, the count is zero each month because these beneficiaries used other SUD services that are counted higher in the hierarchy. When no hierarchy logic is applied, the count is still low at less than 60 individuals per month receiving early intervention services in both the pre- and post-demonstration period.

Exhibit 17

Results from CMS Metric #8: Outpatient Services

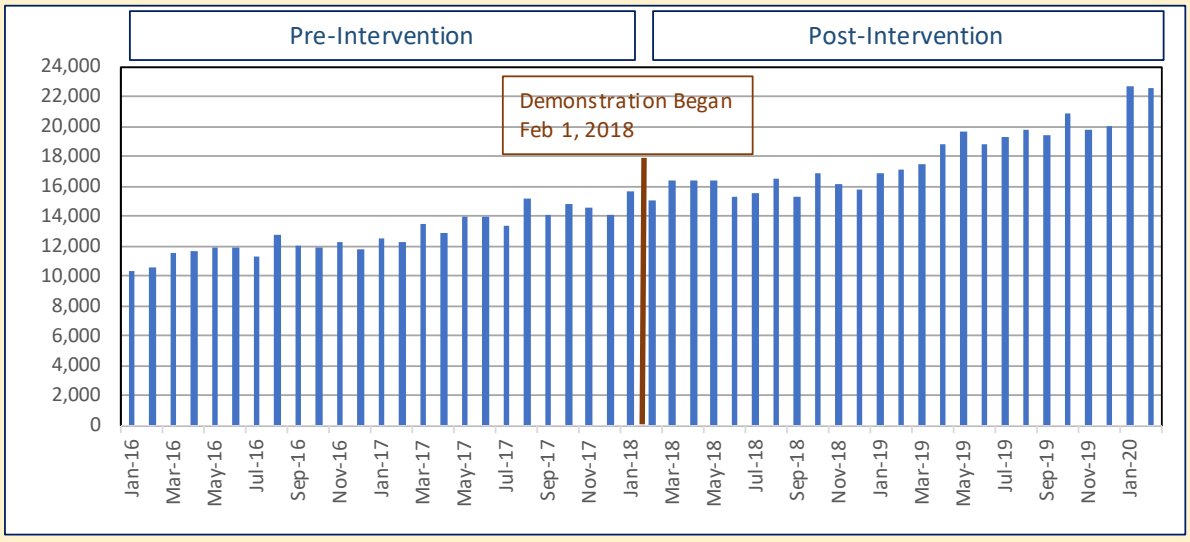
Research Question:

Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Outpatient Services

Measure Steward: CMS [Metric #8]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	0.1482	<.0001	Yes
Pre-intervention trend	0.1435	<.0001	Yes
Post-intervention trend	0.2917	<.0001	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration

Result for Demonstration: increase of 40.0%

Results for Subpopulations within the Demonstration:

Model	39.0%	Northwest Region	47.7%
OUD	81.6%	North Central Region	19.4%
Dual Eligible	17.5%	Northeast Region	21.2%
Pregnant Women	101.2%	West Central Region	15.7%
Criminally Involved	low sample	Central Region	43.6%
MRO	16.4%	East Central Region	35.0%
		Southwest Region	56.2%
		Southeast Region	66.7%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

Average number of beneficiaries with SUD using outpatient services in the demonstration period was 17,954 compared to 12,825 during the pre-demonstration period, an increase of 40.0%. Each cohort population increased at least 15.7% during the demonstration period.

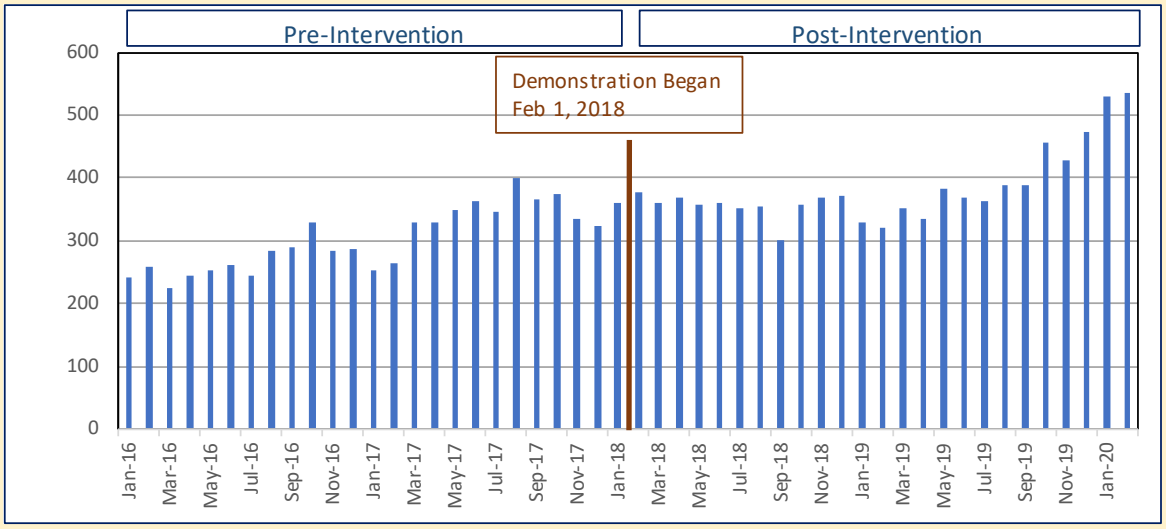
Exhibit 18

Results from CMS Metric #9: Intensive Outpatient and Partial Hospitalization

Research Question:
Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Intensive Outpatient and Partial Hospitalization
Measure Steward: CMS [Metric #9]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	0.0005	0.7456	No
Pre-intervention trend	0.0052	<.0001	Yes
Post-intervention trend	0.0056	<.0001	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration
Result for Demonstration: increase of 26.2%
Results for Subpopulations within the Demonstration:

Model	33.7%	Northwest Region	-1.4%
OUD	14.1%	North Central Region	low sample
Dual Eligible	low sample	Northeast Region	low sample
Pregnant Women	low sample	West Central Region	low sample
Criminally Involved	low sample	Central Region	76.5%
MRO	-23.7%	East Central Region	low sample
		Southwest Region	low sample
		Southeast Region	low sample

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

Average number of beneficiaries with SUD using intensive outpatient or partial hospitalization services in the demonstration period was 383 compared to 304 during the pre-demonstration period, an increase of 26.2%. Overall volume is low for this service. Results for multiple regions and subpopulations could not be reported due to low sample size.

Exhibit 19

Results from CMS Metric #10: Residential and Inpatient Services

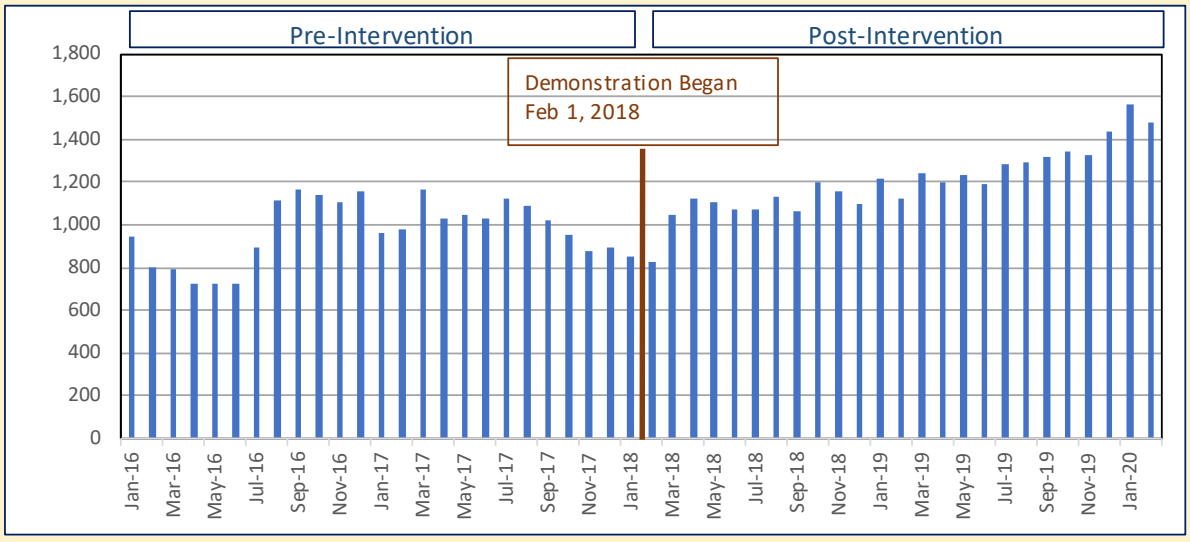
Research Question:

Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Residential and Inpatient Services

Measure Steward: CMS [Metric #10]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	0.0173	0.0003	Yes
Pre-intervention trend	0.0028	0.3755	No
Post-intervention trend	0.0201	<.0001	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration

Result for Demonstration: increase of 24.0%

Results for Subpopulations within the Demonstration:

Model	7.5%	Northwest Region	55.4%
OUD	24.0%	North Central Region	12.6%
Dual Eligible	7.1%	Northeast Region	1.7%
Pregnant Women	low sample	West Central Region	16.9%
Criminally Involved	low sample	Central Region	8.3%
MRO	57.4%	East Central Region	40.2%
		Southwest Region	48.7%
		Southeast Region	49.5%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

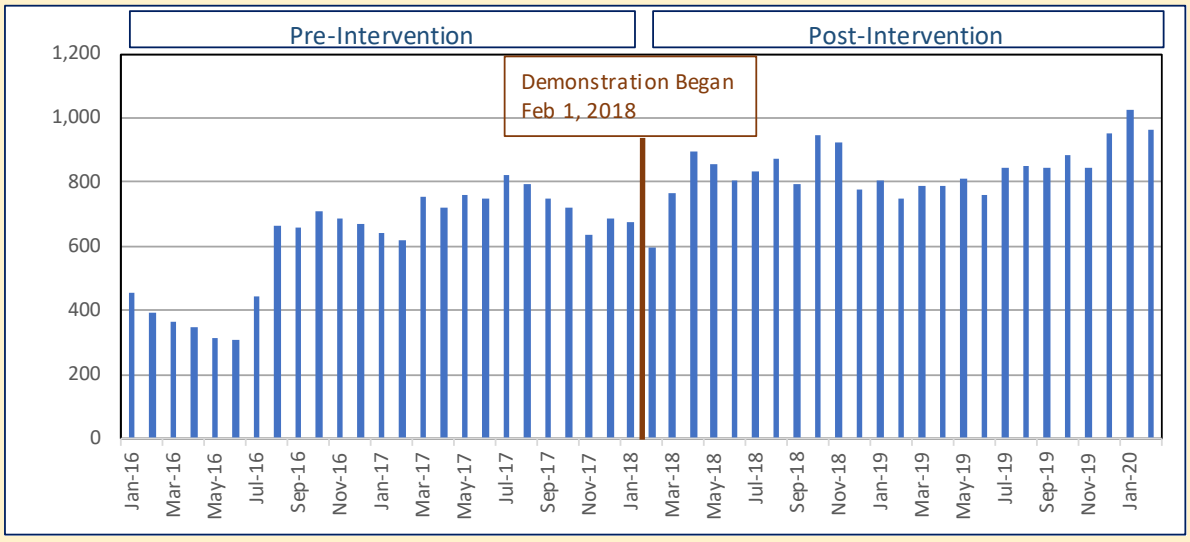
Average number of beneficiaries with SUD using inpatient hospital or residential treatment for SUD in the demonstration period was 1,205 compared to 972 during the pre-demonstration period, an increase of 24.0%. The greatest growth in utilization was in the OUD subpopulation. Utilization varies by region.

Exhibit 20
Results from CMS Metric #11: Withdrawal Management

Research Question:
Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Withdrawal Management
Measure Steward: CMS [Metric #11]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	-0.0101	0.0109	Yes
Pre-intervention trend	0.0160	<.0001	Yes
Post-intervention trend	0.0059	0.0288	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration
Result for Demonstration: increase of 36.8%
Results for Subpopulations within the Demonstration:

Model	19.3%	Northwest Region	low sample
OUD	18.2%	North Central Region	low sample
Dual Eligible	low sample	Northeast Region	-4.4%
Pregnant Women	low sample	West Central Region	low sample
Criminally Involved	low sample	Central Region	13.4%
MRO	low sample	East Central Region	86.6%
		Southwest Region	64.9%
		Southeast Region	84.5%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

Average number of beneficiaries with SUD using withdrawal management in the demonstration period was 839 compared to 613 during the pre-demonstration period, an increase of 36.8%. Overall volume is low for this service. Results for multiple regions and subpopulations could not be reported due to low sample.

Exhibit 21

Results from CMS Metric #12: Medication-Assisted Treatment

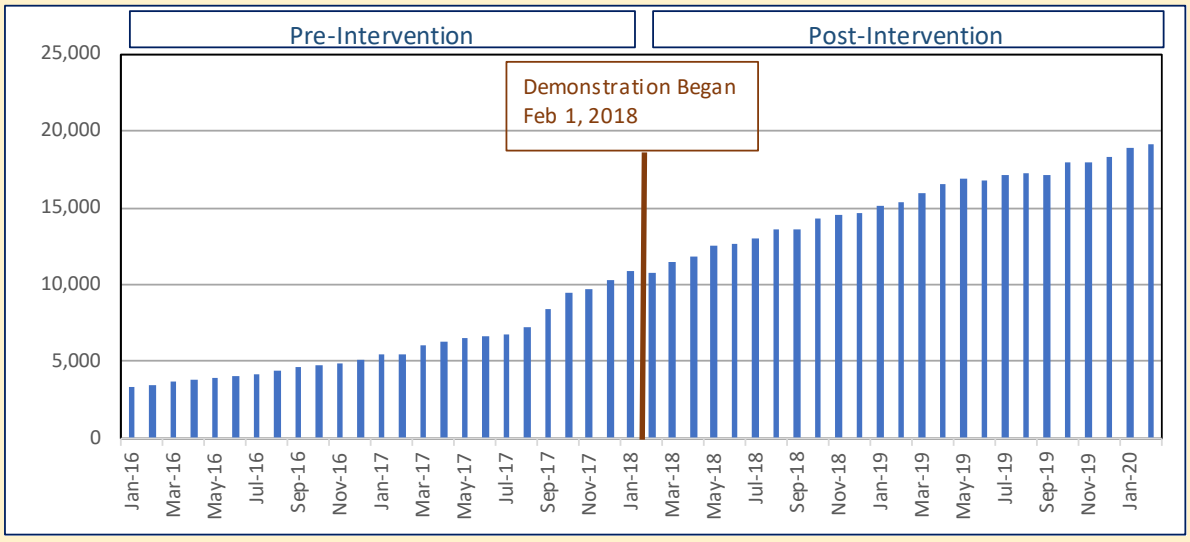
Research Question:

Does the number of users of SUD services in the SUD population increase in the demonstration period within each ASAM level of care?

Measure(s) Used to Answer Question: Medication-Assisted Treatment (MAT)

Measure Steward: CMS [Metric #12]

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	0.0560	0.1095	No
Pre-intervention trend	0.2875	<.0001	Yes
Post-intervention trend	0.3435	<.0001	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration

Result for Demonstration: increase of 155.9%

Results for Subpopulations within the Demonstration:

Model	154.7%	Northwest Region	136.6%
OUD	207.9%	North Central Region	137.0%
Dual Eligible	low sample	Northeast Region	278.7%
Pregnant Women	246.7%	West Central Region	126.7%
Criminally Involved	low sample	Central Region	133.5%
MRO	103.2%	East Central Region	183.7%
		Southwest Region	172.5%
		Southeast Region	157.9%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

Average number of beneficiaries with SUD using medication assisted treatment in the demonstration period was 15,334 compared to 5,992 during the pre-demonstration period, an increase of 155.9%. Each cohort population increased at least doubled during the demonstration period.

Exhibit 22

Results from CMS Metric #22: Continuity of Pharmacotherapy for Opioid Use Disorder

Research Question:

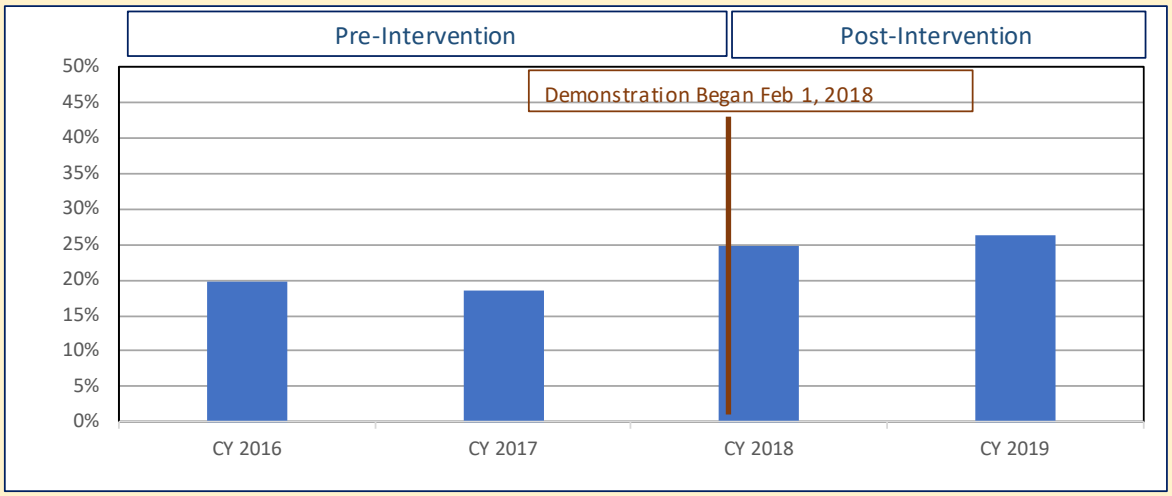
Does the level and trend in continuity of pharmacotherapy for opioid use disorder increase among the OUD population in the demonstration period?

Measure(s) Used to Answer Question:

Continuity of Pharmacotherapy for Opioid Use Disorder

Measure Steward: National Quality Forum #3175 [CMS Monitoring Metric #22]

Results for the Demonstration Population



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	19.2%	**Probability:**	< .0001
CY2018-2019 average	25.4%	**Finding:**	Significant
Percent Change, Demonstration	32.5%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	30.8%	25.7%	Northwest Region	8.7%	17.8%
OUD	35.2%	27.4%	North Central Region	39.2%	26.1%
Dual Eligible	32.2%	36.5%	Northeast Region	69.2%	27.7%
Pregnant Women	8.8%	27.1%	West Central Region	27.7%	24.3%
Criminally Involved	6.2%	12.0%	Central Region	31.1%	24.6%
MRO	3.3%	21.1%	East Central Region	22.9%	30.1%
			Southwest Region	40.7%	29.6%
			Southeast Region	44.9%	30.1%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

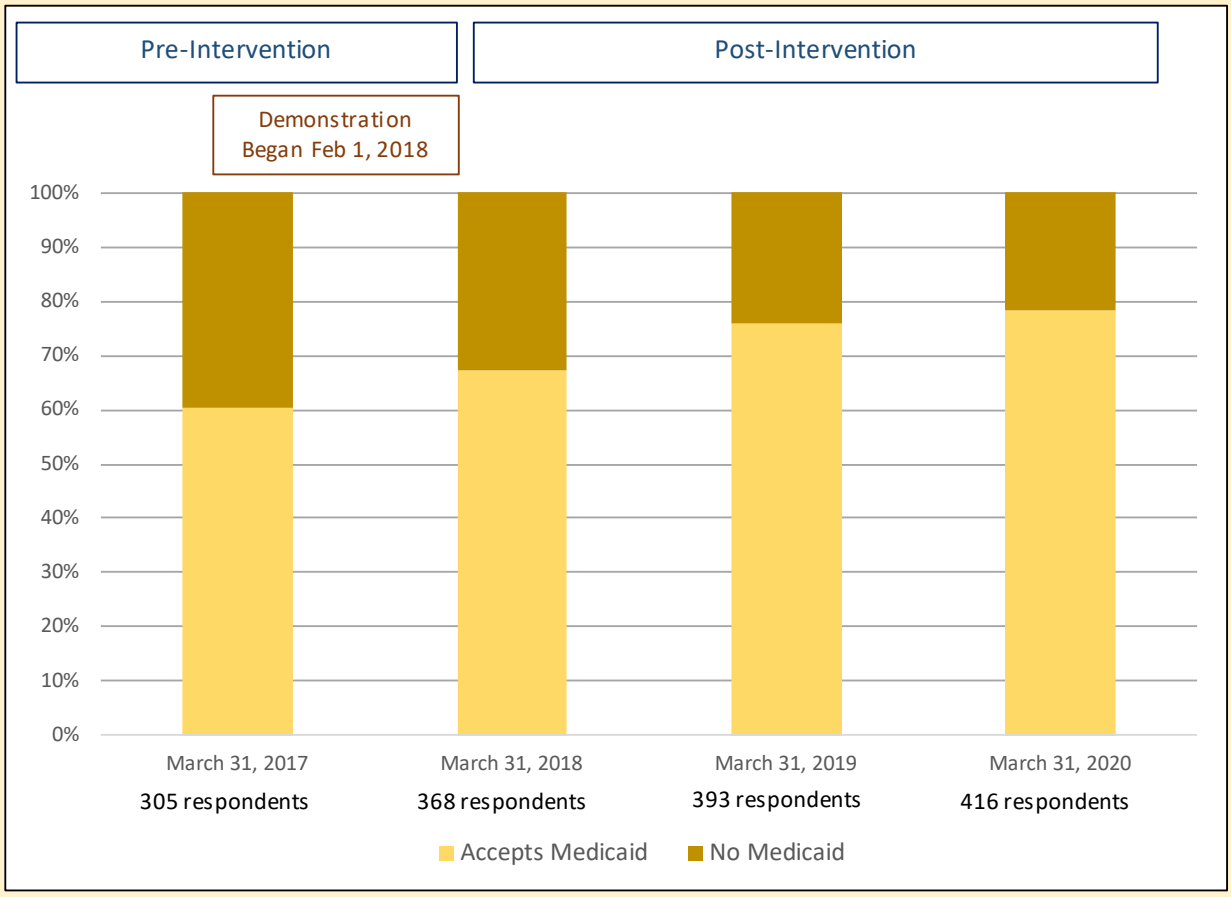
Average rate of continuity of pharmacotherapy for opioid use disorder among the OUD population increased 6.2 percentage points, or 32.5% between the pre- and post-demonstration period. The percent changes were mixed compared to the overall demonstration for subpopulations and at the region level. In absolute numbers, dual eligibles and pregnant women had a rate above the demonstration rate of 25.4% for 2018-2019 as did all regions except the Northwest Region.

Exhibit 23
Results from HMA-Burns Metric:
Proportion of SUD Providers Accepting Medicaid as a Percentage of Total SUD Providers in Indiana

Research Question:
Does the level and trend in the percentage of SUD facilities who report that they accept Medicaid as a payer increase in the demonstration period?

Measure(s) Used to Answer Question:
Proportion of SUD Providers Accepting Medicaid as a Percentage of Total SUD Providers in Indiana
Measure Steward: HMA-Burns **Data Source:** National Survey of Substance Abuse Treatment Services

Results



Desired Trend: Increase Medicaid participation **Finding:** Increase
Statistical Review: No statistical tests were run on this measure

As per the N-SSATS annual survey, the percentage of SUD providers in Indiana that state that they accept Medicaid clients increased from 60% of the total in the March 2017 survey to 78% of the total in the March 2021 survey. The total respondents also increased by 36% over this time period.

Exhibit 24

Results from HMA-Burns Metric: Average Driving Distance to SUD and Primary Care Services by Region

Research Question:

Does the average driving distance to access SUD services and primary care decrease among the SUD population in the demonstration period?

Measure(s) Used to Answer Question:

Average Driving Distance to SUD and Primary Care Services by Region

Measure Steward: HMA-Burns **Data Source:** State claims/encounters and enrollment data

Results

	# trips for SUD Residential Treatment and SUD Inpatient			Average Driving Distance (in miles)		
	CY 2018	**CY 2019**	**CY 2020**	**CY 2018**	**CY 2019**	**CY 2020**
Northwest	301	587	760	25	22	21
North Central	75	187	234	50	56	59
Northeast	183	248	486	36	34	31
West Central	542	617	957	63	57	60
Central	3,595	3,778	5,836	19	22	23
East Central	1,072	1,306	1,745	58	54	54
Southwest	884	1,208	1,631	36	33	33
Southeast	600	984	1,635	56	50	45

	# trips for Primary Care Visits for Beneficiaries with SUD			Average Driving Distance (in miles)		
	CY 2018	**CY 2019**	**CY 2020**	**CY 2018**	**CY 2019**	**CY 2020**
Northwest	11,138	12,731	14,044	15	15	14
North Central	5,631	6,550	7,526	15	16	15
Northeast	5,805	7,175	8,064	19	20	17
West Central	5,991	8,212	9,186	22	21	21
Central	18,078	23,972	30,088	19	19	18
East Central	7,257	9,754	15,652	26	24	25
Southwest	12,283	14,695	18,115	19	18	17
Southeast	11,161	13,400	17,006	23	21	21

Desired Trend: Decrease in average driving distance **Finding:** No material change

Statistical Review: No statistical tests were run on this measure

For individuals identified with SUD in CMS Metric #4, HMA-Burns identified the unique pairings of Medicaid members to SUD residential treatment, SUD inpatient hospital service, and primary care providers. For the SUD services in the study, the utilization from CMS Metric #10 was used. For the primary care services in the study, the utilization from CMS Metric #32 was used. The study is limited to one pairing for each combination even if the member saw the same provider more than once during the year. The driving distance was computed from each member's home to the provider location. Weighted average values were computed for each of the eight regions of the state defined by the The total trip utilization increased for members within each region over the three-year period. This is because the number of Medicaid beneficiaries with SUD increased from 93,778 in CY 2018 to 108,265 in CY 2020. The average distances travelled did not improve to any noticeable degree, however, in any region of the state. This was true for the SUD services examined (residential treatment and inpatient hospital) as well as primary care visits.

State SUD Implementation Plan

FSSA identified 17 specific items in its Implementation protocol related to access to critical levels of care. Among these, twelve have been completed. Refer to Exhibit 25 below for additional details.

Exhibit 25

Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 1

	Action	Intended Completion Date	Was Action Completed?	Notes
1	Pursue Indiana Administrative Code (IAC) change for coverage and reimbursement of OTPs	12/31/2018	Yes, 09/01/2017	
2	Pursue IAC amendments to Mental Health Services Rule	12/31/2018	No	Added LCAC 09/01/2021; IAC changes pending
3	Pursue IAC change to remove Intensive Outpatient Treatment (IOT) from MRO	12/31/2018	No	SPA approved 03/19/19; IAC changes on hold
4	Pursue State Plan Amendment (SPA) to move IOT coverage from MRO	06/30/2018	Yes, 10/03/2018	
5	Pursue amendment to 1915(b)(4) waiver	06/30/2018	Yes, 02/22/2019	
6	Make necessary system changes to CoreMMIS to remove IOT from MRO	06/30/2018	Yes, 07/01/2019	
7	Develop provider communication over new benefits- billing for IOT/IOP	Contingent upon approval of SPA	Yes, 05/30/2019	
8	Make necessary system change to CoreMMIS to enroll residential addiction facilities and to reimburse for residential treatment	03/01/2018	Yes, 03/01/2018	
9	Develop provider communication over new benefits- residential treatment	Ongoing and as part of roll-out	Yes, 01/04/2018	Communication was ongoing throughout 2018
10	Determine final action and necessary system changes to CoreMMIS to allow reimbursement for inpatient SUD stays on a per diem basis	Fall 2018	No	Not pursuing proposed change based on provider input
11	Develop provider communication over new benefits- inpatient SUD stays	Ongoing and as part of roll-out	Yes, 01/04/2018	Communication was ongoing throughout 2018
12	Make necessary system changes to allow reimbursment for Addiction Recovery Management Services	Spring 2018	Yes, 07/01/2019	
13	Pursue SPA to add coverage and reimbursement of Addiction Recovery Management Services	Spring 2018	Yes, 10/03/2018	
14	Pursue IAC changes to add coverage of Addiction Recovery Management Services	12/31/2018	No	SPA approved 03/19/19; IAC changes pending
15	Develop provider communication over new benefits Addiction Recovery Management	Ongoing and as part of roll-out	Yes, 05/30/2019	This is the date of initial communication
16	Invite representatives from each of the MCEs, the Indiana Housing and Community Development Authority (IHCDA) and other interested stakeholders towards developing a supportive housing solution	No specific date- implied some time in 2018	No	Ongoing discussions; DMHA issued two housing related request for funding grants in 2022
17	Establish allowed criteria to use for authorizing inpatient detoxification	02/01/2018	Yes, 05/22/2018	

Stakeholder Feedback

Stakeholders offered appreciation that the FSSA took advantage of pursuing the waiver authority to expand access to services. The greatest concern is beneficiary knowledge about what is available.

Exhibit 26
Stakeholder Feedback Related to CMS Milestone 1

	Topic	From Whom	Type of Feedback	Feedback
1	Understanding benefits offered	Providers	Critique	Almost all providers stated that clients do not understand the services available to them as part of their benefit package until they enter treatment. Individual clients who are longer-term recovery patients have a much better understanding of the SUD services available to them. Specific areas of misunderstanding cited: access to sober living, particularly, facilities that would take someone on medication assisted treatment; and non-emergency medical transportation.
		MCEs	Neutral	The MCEs felt that, in part, this is connected with the disease of substance abuse and difficulties with daily functions.
		Beneficiaries	Neutral	Many of the members interviewed said that they found out about treatment primarily from a friend, family member, sponsor, Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) meetings, receiving other care from the provider, or as a result of going through the criminal justice system.
2	Access to services	Beneficiaries	Critique	Most members stated during the Mid-Point Assessment that they did not know they had access to care and what Medicaid covered. They thought that getting treatment for addictions was only for rich people.
3	Ability to get treatment in settings not previously covered by Medicaid	MCEs	Compliment	MCEs overwhelmingly were supportive of the ability to cover care in treatment settings not previously covered, specifically residential treatment centers. They all expressed that this was a huge gap in care and felt that the waiver was providing access to a much-needed service. The MCEs felt that there still needed to be clearer understandings of who needs to get this type of care, the appropriate level of care and documentation needed to support it (this was also cited during the Mid-Point Assessment).
4	Better able to deal with relapses that are part of SUD treatment	Providers	Compliment	Providers were appreciative that the waiver has allowed access to treatment settings not previously covered by Medicaid (this was stated in the Mid-Point Assessment as well). A specific item cited was Medicaid members' ability to get care as many times as needed through residential treatment programs, where they were limited to one time with prior DMHA grant funding. This is particularly beneficial for SUD treatment where relapses are a fact of recovery.

Milestone #2: Use of Evidence-Based, SUD-specific Patient Placement Criteria

Evaluation Measures

Four measures were examined to assess the use of evidence-based, SUD-specific patient placement criteria. In Exhibit 27 below, it shows that the desired outcome was met in two out of the four measures. A test for statistical significance was conducted on two of the four measures. For one of these measures, the outcome was statistically significant. More detailed information can be found on each measure in the pages that follow.

Exhibit 27
Summary of Findings for Metrics Mapped to CMS Milestone 2
Results Shown Below are for the Total Demonstration Population

	Measure Examined	Desired Outcome	Outcome Met?	Statistically Significant?	Statistical Test
1	Number of Medicaid Beneficiaries Treated in an IMD for SUD	Decrease	No	No	T-test
2	Average Length of Stay in IMDs	Decrease	Yes	Yes	T-test
3	Authorization Denial Rate for SUD Services	Decrease	Yes	N/A	no test run
4	SUD Authorization Denial Reasons	Increase in proportion of medical necessity denials	No	N/A	no test run

Exhibit 28

Results from CMS Metric #5: Medicaid Beneficiaries Treated in an IMD for SUD

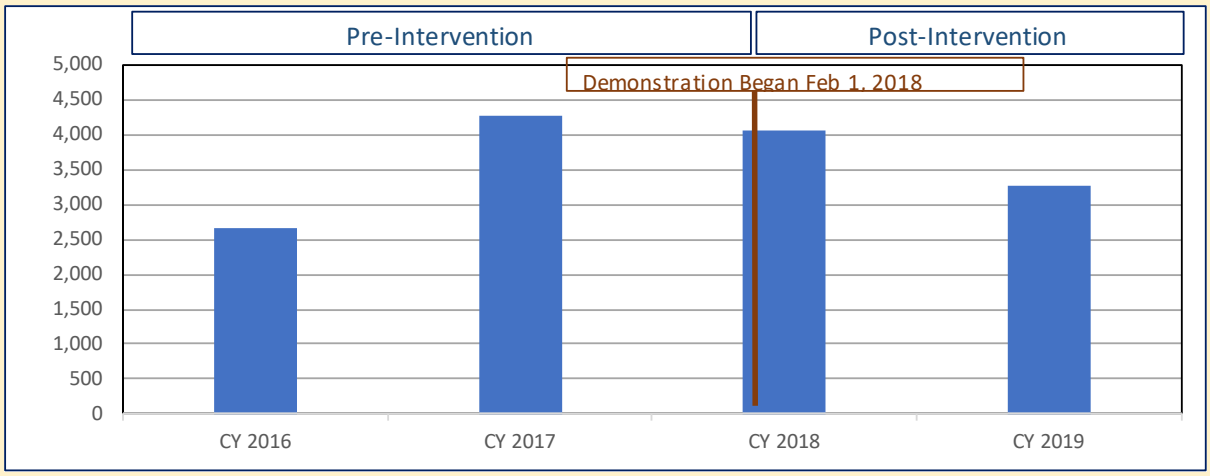
Research Question:

Does the number of Medicaid beneficiaries treated in an IMD for SUD decrease during the demonstration period?

Measure(s) Used to Answer Question: Medicaid Beneficiaries Treated in an IMD for SUD

Measure Steward: CMS [Metric #5]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	T-test
CY2016-2017 average	3,467	**Probability > [t]:**	0.5319
CY2018-2019 average	3,662	**Finding:**	Not Significant
Change	5.6%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-6.3%	2,916	Northwest Region	15.5%	138
OUD	-5.9%	2,593	North Central Region	19.7%	173
Dual Eligible	-27.2%	176	Northeast Region	36.6%	49
Pregnant Women	31.5%	82	West Central Region	15.4%	233
Criminally Involved	-39.0%	42	Central Region	1.8%	1,295
MRO	4.8%	536	East Central Region	-8.7%	185
			Southwest Region	-12.9%	451
			Southeast Region	-21.1%	281

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		Sample is too small to report on (n < 50 obs)

The number of beneficiaries treated in an IMD for SUD increased 5.6% between the pre- and post-demonstration period. But there was a decrease for each of the subpopulations observed with the exception of pregnant women. The utilization of IMDs during the demonstration appears to be driven by residential treatment options. IMD use fell in southern regions of state but increased in northern regions of the state. Residential options increased faster in the southern portion of the state.

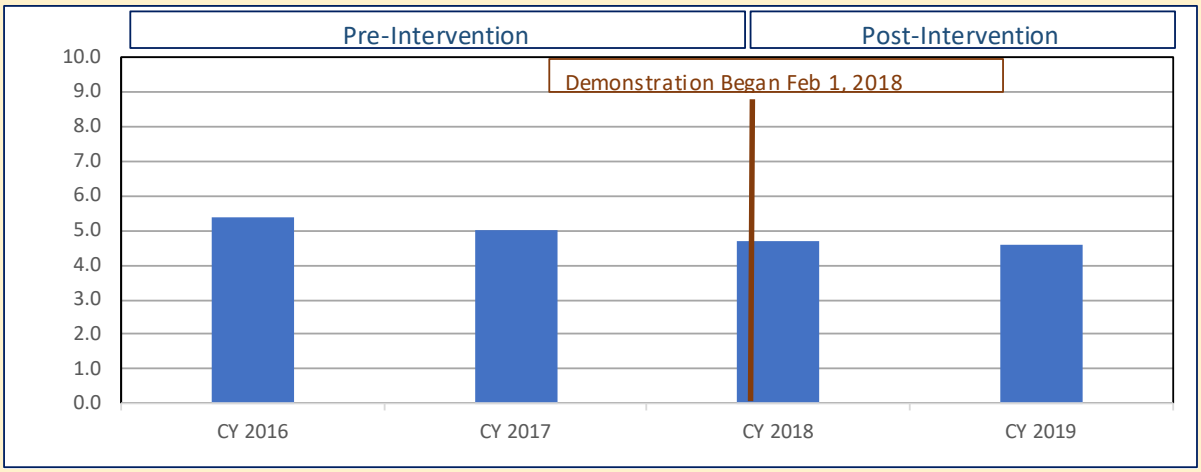
Exhibit 29

Results from CMS Metric #36: Average Length of Stay in IMDs

Research Question:
Does the average length of stay for Medicaid beneficiaries treated in an IMD for SUD decrease during the demonstration period?

Measure(s) Used to Answer Question: Average Length of Stay in IMDs
Measure Steward: CMS [Metric #36]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	T-test
CY2016-2017 average	5.2	**Probability > [t]:**	<.0001
CY2018-2019 average	4.7	**Finding:**	Significant
Change	-10.6%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-9.3%	4.6	Northwest Region	-15.5%	5.1
OUD	-10.4%	4.5	North Central Region	3.5%	4.4
Dual Eligible	-17.4%	5.8	Northeast Region	2.6%	4.5
Pregnant Women	-14.3%	4.1	West Central Region	-13.4%	5.4
Criminally Involved	-4.7%	4.7	Central Region	-10.6%	4.3
MRO	-9.0%	5.0	East Central Region	-8.7%	4.8
			Southwest Region	-11.0%	5.0
			Southeast Region	-7.5%	4.8

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration
Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		Sample is too small to report on (n < 50 obs)

The average lenght of stay of beneficiaries treated in an IMD for SUD decreased 10.6% between the pre- and post-demonstration period, from an average of 5.2 days in the pre-demonstration period to an average of 4.7 days during the demonstration. Each subpopulation and region analyzed had a similar average length of stay during the demonstration, the lowest being for pregnant women at 4.1 days and the highest being for dual eligibles at 5.8 days.

Exhibit 30

Results from HMA-Burns Metric: SUD Authorization Denial Rate

Research Question:

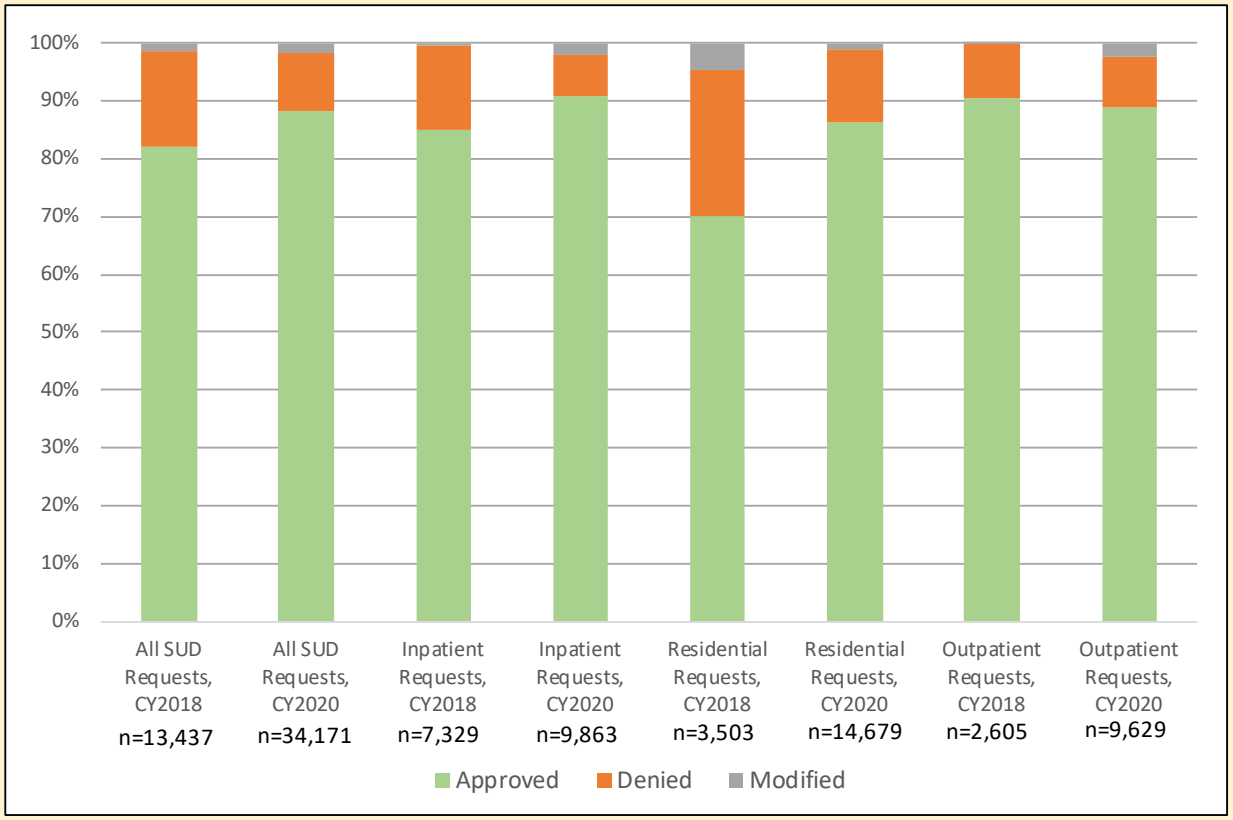
Does the rate of prior authorization requests for SUD services that are denied decrease during the demonstration period?

Measure(s) Used to Answer Question:

SUD Authorization Denial Rate for inpatient hospital, residential treatment, and outpatient services

Measure Steward: HMA-Burns **Data Source:** Data reported by managed care entities to the evaluators

Results



Inpatient is inpatient hospital services. Residential is residential treatment center services. Outpatient is community-based SUD services, primarily Intensive Outpatient and Partial Hospitalization.

Desired Trend: Decrease in authorization denials **Finding:** Decrease

Statistical Review: No statistical tests were run on this measure

The denial rate for authorization requests by SUD providers to Indiana's Medicaid managed care entities did decline during the demonstration, from 16.3% overall during CY 2018 to 9.9% during CY 2020. The denial rate for inpatient hospital services declined from 14.6% to 6.9%. For residential treatment, from 25.3% to 12.6%. For SUD outpatient services, from 9.3% to 8.8%. Part of the reason why the denial rate is lower in CY 2020 is due to the FSSA's requirement at the onset of the public health emergency that initial inpatient requests for SUD be approved for 7 days and residential treatment requests be initially approved for 21 days.

Exhibit 31

Results from HMA-Burns Metric: SUD Authorization Denial Reasons

Research Question:

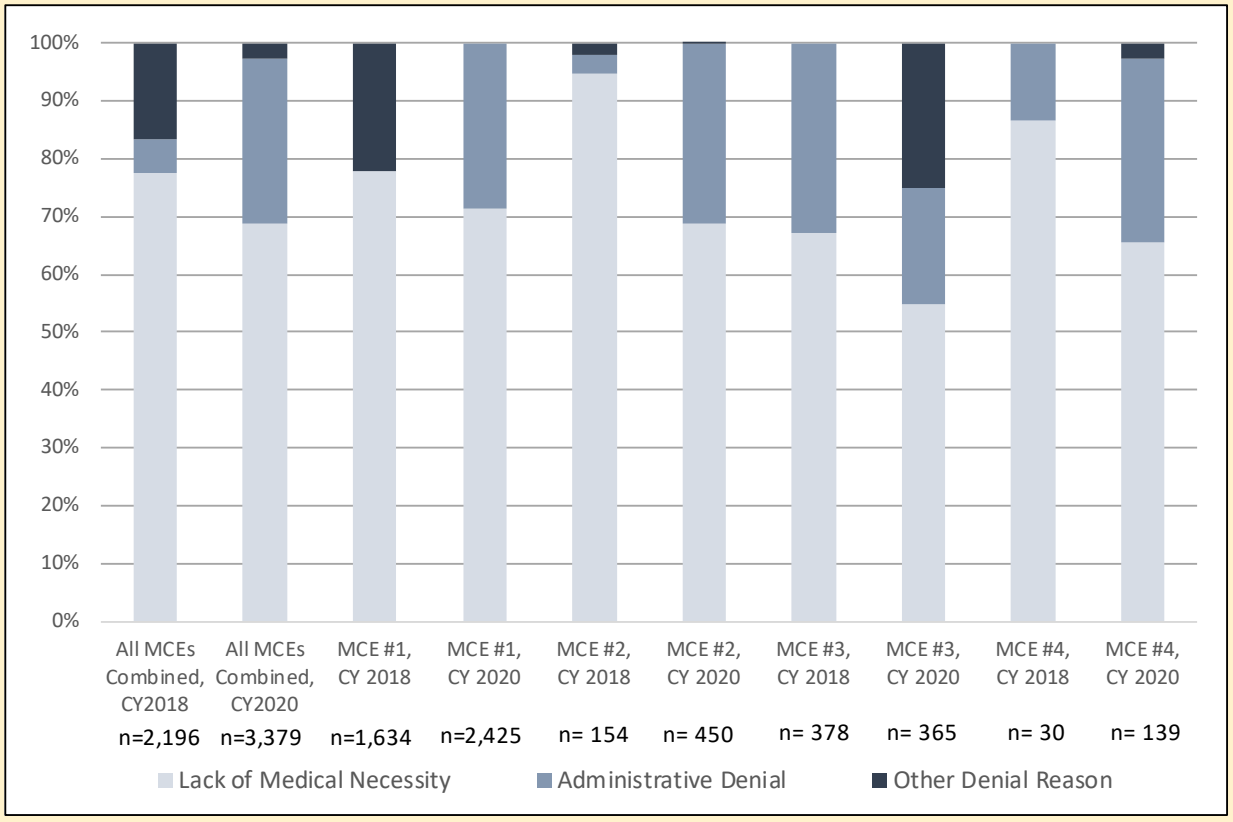
Are denied prior authorization requests for SUD services primarily being denied for lack of medical necessity or for administrative reasons during the demonstration period?

Measure(s) Used to Answer Question:

SUD Authorization Denial Reasons

Measure Steward: HMA-Burns **Data Source:** Data reported by managed care entities to the evaluators

Results



Desired Trend:	Increase in proportion of medical necessity-related denials
Finding:	Did not meet desired trend
Statistical Review:	No statistical tests were run on this measure

For authorization requests specific to SUD services, the rate of denials due to lack of medical necessity declined during the demonstration, from 77% of all denials during CY 2018 to 69% during CY 2020. Denials for administrative reasons increased sharply, from 6% during CY 2018 to 28% during CY 2020. This finding may partially be attributed to due to the FSSA's requirement at the onset of the public health emergency that initial inpatient requests for SUD be approved for 7 days and residential treatment requests be initially approved for 21 days. Therefore, the medical necessity test was not required. The MCEs have improved tracking of denial reasons since only 3% of denials were for a reason other than administrative or lack of medical necessity during CY 2020. In CY 2018, this rate was 17%.

State SUD Implementation Plan

All four specific items identified by FSSA related to evidence-based patient placement criteria have been completed, as found in Exhibit 32.

Exhibit 32
Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 2

	Action	Intended Completion Date	Was Action Completed?	Notes
18	Provider education on ASAM criteria	Ongoing throughout 2018	Yes, 05/22/2018	ASAM trainings sponsored by FSSA were also held in 2019
19	Development of standard prior authorization SUD treatment form	07/01/2018	Yes, 03/15/2019	
20	Review MCE and FFS vendor contracts and pursue amendments, where necessary	07/01/2018	Yes, 02/24/2018	
21	Review CANS/ANSA for alignment with ASAM criteria	12/31/2018	Yes 2019 Annual Monitoring Report	Determined consolidated tool not feasible and providers will continue to use CANS or ANSA tool along with ASAM tool.

Stakeholder Feedback

Providers expressed concerns with the consistency in service authorization determinations. MCEs have noticed improvements in provider authorization submissions but more education is needed on ASAM.

Exhibit 33
Stakeholder Feedback Related to CMS Milestone 2

	Topic	From Whom	Type of Feedback	Feedback
1	Prior Authorization (PA) Process	Providers	Critique	Most providers reported having issues with PA in terms of getting different interpretations or results of SUD authorization decisions across the MCEs over the demonstration period. They want clear expectations known upfront to avoid denials and appeals later.
		Providers	Critique	Providers overwhelmingly expressed concerns with the lack of a consistent review process and documentation requirements across the MCEs. The uniform PA form established by FSSA has been helpful, but it does not accommodate authorizations for all ASAM levels. Many providers stated that they are asked to fill out an additional form specific to the MCE. Specific to intensive outpatient treatment, providers noted an enhanced level of MCE review after the reimbursement rate was increased. Providers are billing for services outside of the IOP service to circumvent the PA process.
		Providers	Critique	Continue to express that the clinical peer-to-peer process for PA review is difficult (was also finding in Mid-Point Assessment). Issue is in scheduling the peer-to-peer consult (only specific date/time blocks offered by the MCEs).
2	Improvements in the PA process	MCEs	Compliment	Over the demonstration, the interaction between MCEs, providers and the State has become much more collaborative. The universal PA form helped to align expectations on what is needed for PA and criteria used to make determinations.
3	Additional clarification on PA criteria and processes needed	MCEs	Recommen-dation	FSSA should provide further clarification on the criteria and processes used for PA. The PHE policies related to auto-authorization and increased lengths of stay created confusion among providers. Additionally, the MCEs reiterated that ASAM goals are not laid out in enough detail, which in turn provides less clarity when conducting continued stay reviews.
4	Lack of provider understanding of the ASAM levels	MCEs	Critique	The PHE contributed to the confusion on the part of providers regarding the ASAM treatment model. This has led to continued frustration on the part of providers and has created issues with provider enrollment and PA for the MCEs.
5	Denials for treatment for those coming out of the criminal justice system	Providers	Critique	The majority of inpatient and residential treatment providers stated that MCEs are initially denying treatment in these care settings because the member is coming from a "clean period or environment". Providers contend that prisons and jails are not clean environments. Providers would like the FSSA to review the current criteria for admission to a residential or inpatient for those exiting the criminal justice system.

Milestone #3: Use of Nationally Recognized SUD-specific Program Standards for Residential Treatment

Evaluation Measures

Two measures were examined to assess the use of evidence-based, SUD-specific patient placement criteria. In Exhibit 34 below, it shows that the desired outcome was met in both measures. Tests for statistical significance were not conducted on these measures. More detailed information can be found on these measures on the next page.

Exhibit 34
Summary of Findings for Metrics Mapped to CMS Milestone 3
Results Shown Below are for the Total Demonstration Population

	Measure Examined	Desired Outcome	Outcome Met?	Statistically Significant?	Statistical Test
1	Number of Licensed SUD Residential Treatment Beds	Increase	Yes	N/A	no test run
2	Number of Licensed SUD Residential Treatment Locations	Increase	Yes	N/A	no test run

State SUD Implementation Plan

There are two items identified by FSSA related to SUD-specific program standards for residential treatment. The item related to provisional ASAM designation was completed with the FSSA developing a formal licensure process for ASAM residential levels 3.1 and 3.5 which has been in place since July 2018. The task related to IAC language changes are pending.

Exhibit 35
Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 3

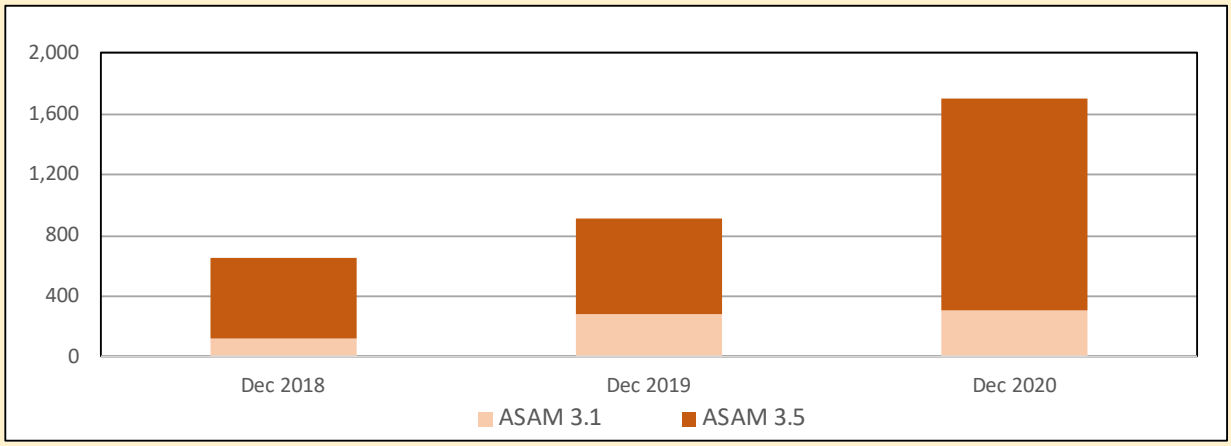
	Action	Intended Completion Date	Was Action Completed?	Notes
22	Finalize process for provisional ASAM designation	12/31/2017	Yes	
23	Insert permanent certification language in IAC	12/31/2018	No	IAC changes pending

Exhibit 36
Results from HMA-Burns Metric:
Number of SUD Residential Treatment Locations and Beds Licensed by the DMHA

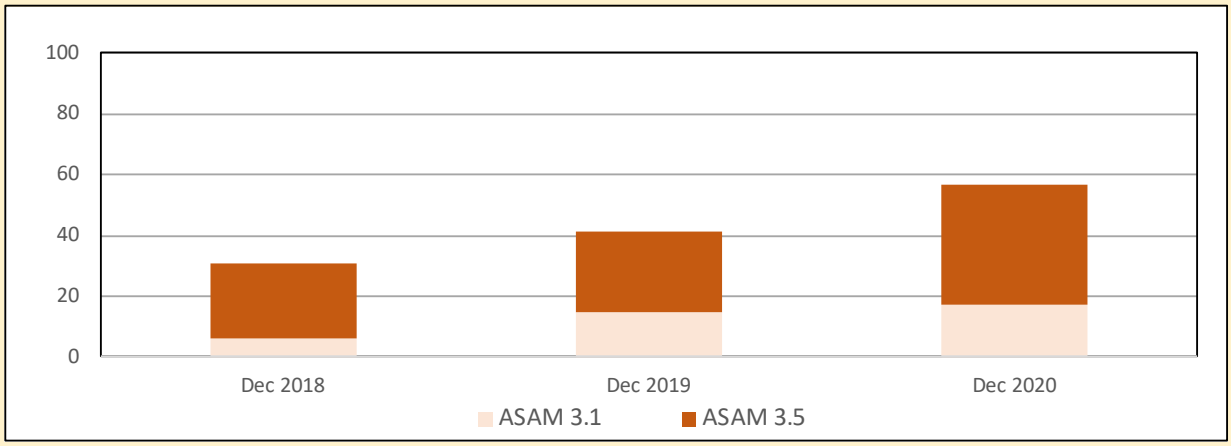
Research Question:
Do the number of locations and residential treatment beds for SUD licensed by the state increase during the demonstration?

Measure(s) Used to Answer Question:
Number of SUD Residential Treatment Locations and Beds Licensed by the Division of Mental Health and Addiction
Measure Steward: HMA-Burns **Data Source:** Indiana DMHA monthly tracking report

Results for Number of Licensed Residential Treatment Beds



Results for Number of Licensed Residential Treatment Locations



Desired Trend: Increase licensed beds and locations **Finding:** Increase
Statistical Review: No statistical tests were run on this measure

Both the number of beds and the number of locations licensed by the FSSA's Division of Mental Health and Addiction (DMHA) increased during the demonstration period. Licensure began in February 2018 at the start of the demonstration and DMHA tracks this monthly. HMA-Burns assessed the prevalence of providers and locations as of December in each demonstration year. The number of locations increased from 31 in December 2018 to 57 in December 2020. The number of licensed beds increased from 659 to 1,702 during this period. The majority of residential beds are licensed at ASAM level 3.5.

Stakeholder Feedback

Stakeholder feedback in this area focused on which ASAM levels that the Division of Mental Health and Addiction are currently licensing as well as the general knowledge of ASAM criteria among providers.

Exhibit 37
Stakeholder Feedback Related to CMS Milestone 3

	Topic	From Whom	Type of Feedback	Feedback
1	ASAM licensure	Providers	Critique	During the Mid-Point Assessment, many of the residential treatment providers expressed that the physical barrier requirement established by DMHA to separate ASAM 3.1 and 3.5 programs is inherently limiting to the usual way these services are delivered (e.g., program specific to pregnant women, program specific to men, etc.). This, in conjunction with reimbursement rate differences, has led providers to choose to enroll as an ASAM level 3.5 provider and limit ASAM 3.1 availability. [Note: As of 12/31/20, there were 17 ASAM 3.1 providers and 41 ASAM 3.5 providers. Since the Mid-Point Assessment, there has been a net increase of 2 ASAM 3.1 providers and 15 ASAM 3.5 providers.]
		Providers	Recommen-dation	Providers question why FSSA does not have a licensure requirement for ASAM 3.7. Developing a license for this level may help alleviate some of the authorization denials currently under ASAM 4.0, since 3.7 may be more a more medically appropriate setting. Currently, there is no other option between ASAM level 4.0 and 3.5.
2	Issues with credentialing and onboarding with MCEs	Providers	Neutral	Some of the providers, but not all, expressed that they had issues with credentialing and onboarding with the MCEs at the outset of the SUD waiver. Providers did acknowledge that this has improved over the demonstration.
3	Re-education of provider staff on ASAM due to large turnover since the PHE	MCEs	Neutral	While supportive of the PHE policies designed to assure access, the MCEs overwhelmingly expressed concerns that they are essentially starting over on provider education regarding authorization and ASAM levels. They stated that some providers do not understand the prior authorization form and ASAM ratings and requests are often scaled to what the provider offers and not the member's needs.

Milestone #4: Sufficient Provider Capacity at Critical Levels of Care

Evaluation Measures

Four measures were examined to assess sufficient provider capacity at critical levels of care. In Exhibit 38 below, it shows that the desired outcome was met in four out of the eight measures. Tests for statistical significance were conducted on four of the measures using T-tests. More detailed information on each measure appears in Exhibits 39a through 39c on the following pages.

Exhibit 38

Summary of Findings for Metrics Mapped to CMS Milestone 4

Results Shown Below are for the Total Demonstration Population

	Measure Examined	Desired Outcome	Outcome Met?	Statistically Significant?	Statistical Test
1	Number of Medicaid SUD MAT Providers	Increase	Yes	N/A	no test run
2	Number of Medicaid SUD Outpatient Providers	Increase	Yes	N/A	no test run
3	Number of Medicaid SUD Residential Treatment Providers	Increase	Yes	N/A	no test run
4	Number of Medicaid SUD Inpatient Hospital or IMD Providers	Increase	No	N/A	no test run
5	Number of Medicaid SUD Providers per 1,000 Medicaid Beneficiaries with SUD Diagnosis	Increase	No	Yes	T-test
6	Number of Medicaid Primary Care Providers per 1,000 Medicaid Beneficiaries with SUD Diagnosis	Increase	No	Yes	T-test
7	Number of Medicaid SUD Visits per 1,000 Medicaid Beneficiaries with SUD Diagnosis	Increase	Yes	Yes	T-test
8	Number of Medicaid Primary Care Visits per 1,000 Medicaid Beneficiaries with SUD Diagnosis	Increase	Yes	No	T-test

Exhibits 40 through 45 appear on subsequent pages. Each exhibit shows a region of the state (northern, central, and southern). In the first of two maps for each region, SUD providers identified as inpatient hospitals, IMDs, residential treatment centers, or medication-assisted treatment providers are plotted to show their service location in the region. In the second map, SUD outpatient providers are plotted. A comparison is shown of the providers available to Medicaid beneficiaries in December 2018 compared to December 2020 to show any growth in provider capacity. The counties in each region are color-coded to show the density of Medicaid beneficiaries with SUD in each county. Key findings from these maps are as follows:

- In the Northern Region, provider supply was relatively unchanged between December 2018 and December 2020. There appears to be lower residential provider capacity than there is need.
- In the Central Region, provider supply grew in Madison and Delaware Counties over the two-year period. The number of residential providers grew in Marion County (Indianapolis).
- In the Southern Region, provider supply grew in Monroe and Clark Counties over the two-year period. The number of residential providers grew in Vanderburgh County (Evansville).

Exhibit 46 shows the location of SUD residential treatment facilities and the 20-mile radius around each facility to show coverage. Although there are more residential providers serving Medicaid beneficiaries in December 2020 than in December 2018, they appear to be in the same location as existing providers.

Exhibit 39a

Results from HMA-Burns Metric: Active SUD Providers as December 2018 and December 2020

Research Question:

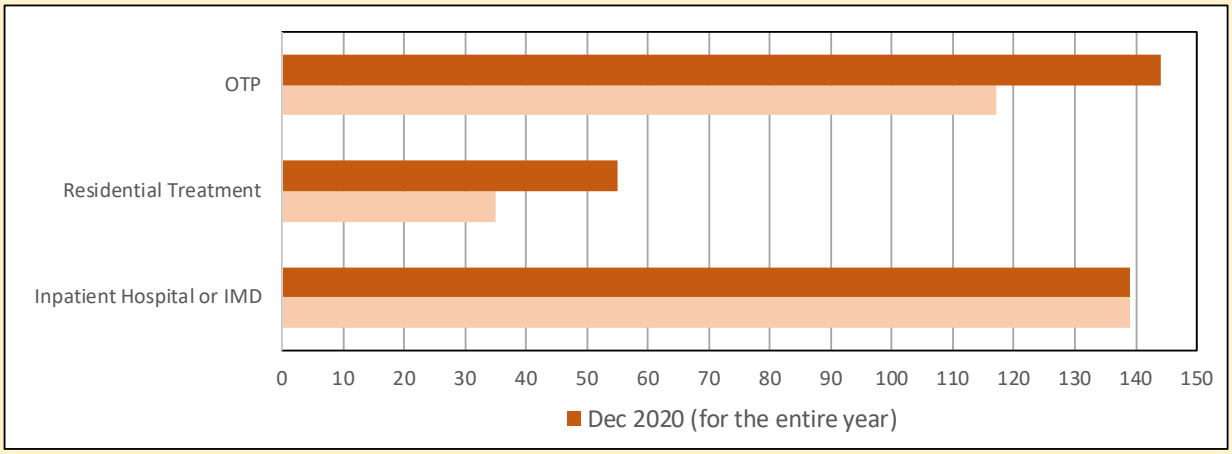
Does the number of Medicaid SUD providers increase during the demonstration period for each ASAM level of care?

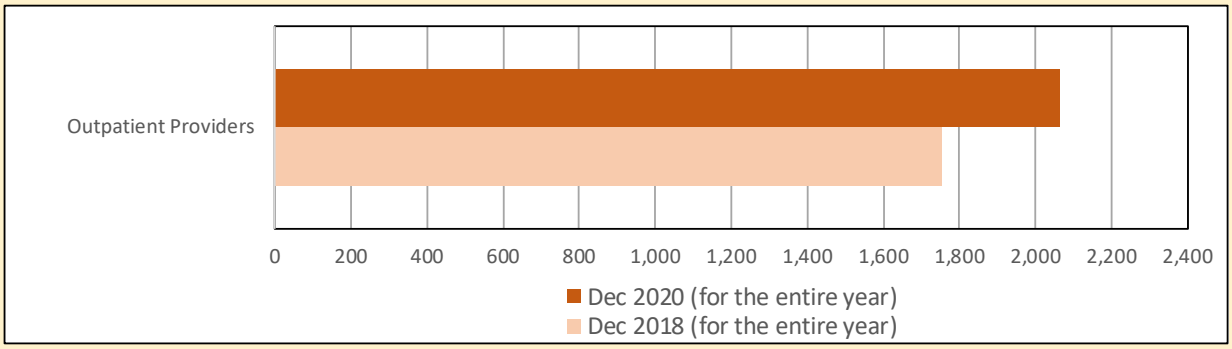
Measure(s) Used to Answer Question:

Active SUD Providers as December 2018 and December 2020

Measure Steward: HMA-Burns **Data Source:** FSSA data warehouse of claims and encounters

Results for Number of Medicaid SUD Providers, by ASAM Level of Care





Desired Trend:	Increase providers at each ASAM level	**Finding:**	Increase for all except inpatient hospital and IMD
Statistical Review:	No statistical tests were run on this measure		

The number of inpatient hospitals and IMDs serving Medicaid beneficiaries remained constant during the demonstration period. Residential treatment SUD providers were new at the start of the demonstration. By the end of the first demonsration year, there were 35 providers. This increased to 55 providers by the end of CY 2020. MAT provider sites increased from 117 to 144 during the demonstration. Outpatient providers increased from 1,753 to 2,064.

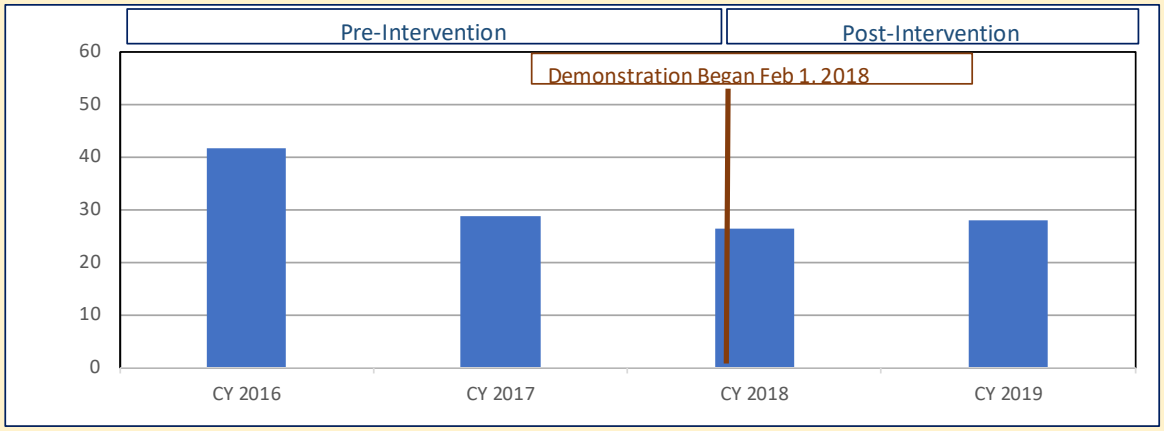
Exhibit 39b

Results from HMA-Burns Metric: Providers in each month of 2017 and 2019

Research Question:
Does the number of either SUD or Primary Care Medicaid providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, increase during the demonstration period?

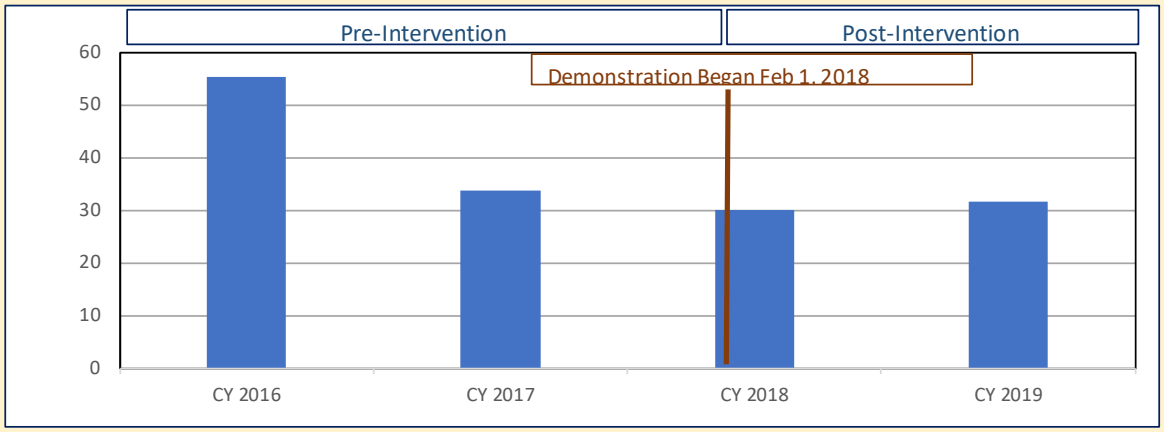
Measure(s) Used to Answer Question: Providers per 1,000 Medicaid Bene's w/SUD Diagnosis
Measure Steward: HMA-Burns **Data Source:** FSSA data warehouse of claims and encounters

Results for the Demonstration Population, for SUD providers



Desired Trend:	Increase	**Statistical Review:**	T-test
CY2017 average	28.7	**Probability > [t]:**	0.0693
CY2019 average	27.8	**Finding:**	Significant
Change	-3.1%		

Results for the Demonstration Population, for Primary Care providers



Desired Trend:	Increase	**Statistical Review:**	T-test
CY2017 average	33.7	**Probability > [t]:**	0.0785
CY2019 average	31.6	**Finding:**	Significant
Change	-6.1%		

The number of SUD providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, decreased 3.1% between the pre- and post-demonstration period, from an average of 28.7 providers in the pre-demonstration period to an average of 27.8 providers during the demonstration. A similar result was observed for the number of Primary Care providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, which decreased 6.1% between the pre- and post-demonstration period, from an average of 33.7 providers in the pre-demonstration period to an average of 31.6 providers during the demonstration.

Exhibit 39c

Results from HMA-Burns Metric: Visits in each month of 2017 and 2019

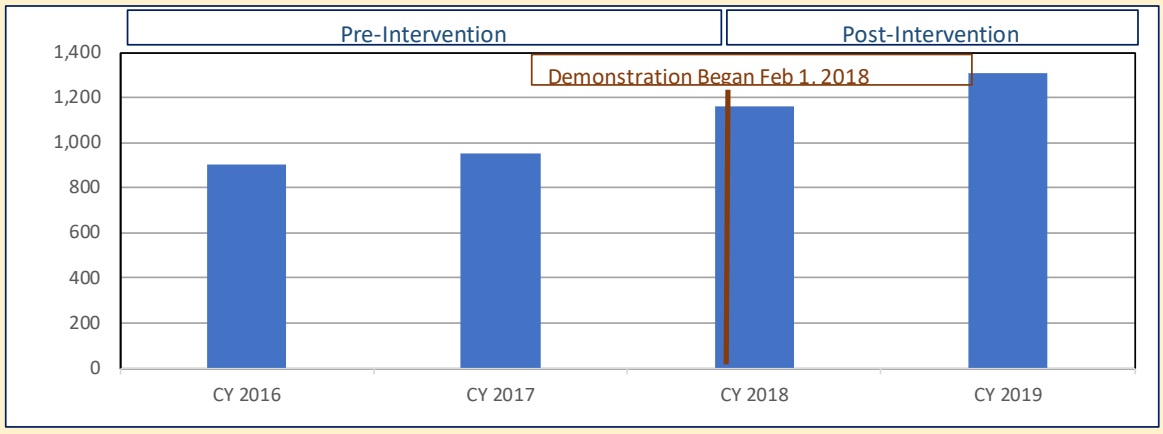
Research Question:

Does the number of either SUD or Primary Care Medicaid visits, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, increase during the demonstration period?

Measure(s) Used to Answer Question: Visits per 1,000 Medicaid Bene's w/SUD Diagnosis

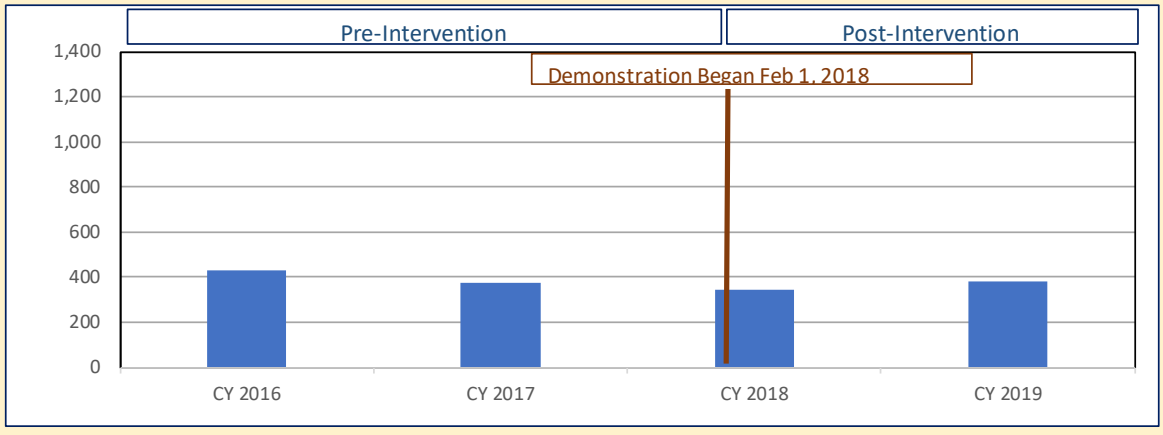
Measure Steward: HMA-Burns **Data Source:** FSSA data warehouse of claims and encounters

Results for the Demonstration Population, for SUD visits



Desired Trend:	Increase	**Statistical Review:**	T-test
CY2017 average	952.3	**Probability > [t]:**	<.0001
CY2019 average	1310.8	**Finding:**	Significant
Change	37.6%		

Results for the Demonstration Population, for Primary Care visits

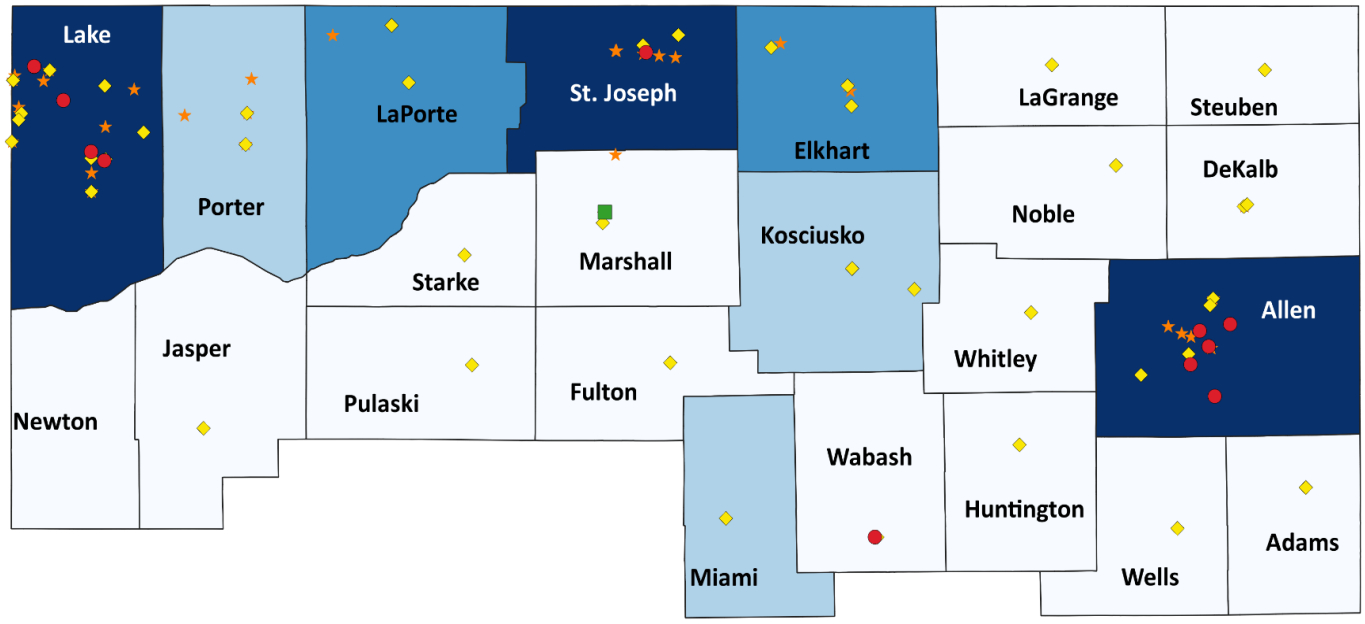


Desired Trend:	Increase	**Statistical Review:**	T-test
CY2017 average	374.6	**Probability > [t]:**	0.5104
CY2019 average	381.7	**Finding:**	Not Significant
Change	1.9%		

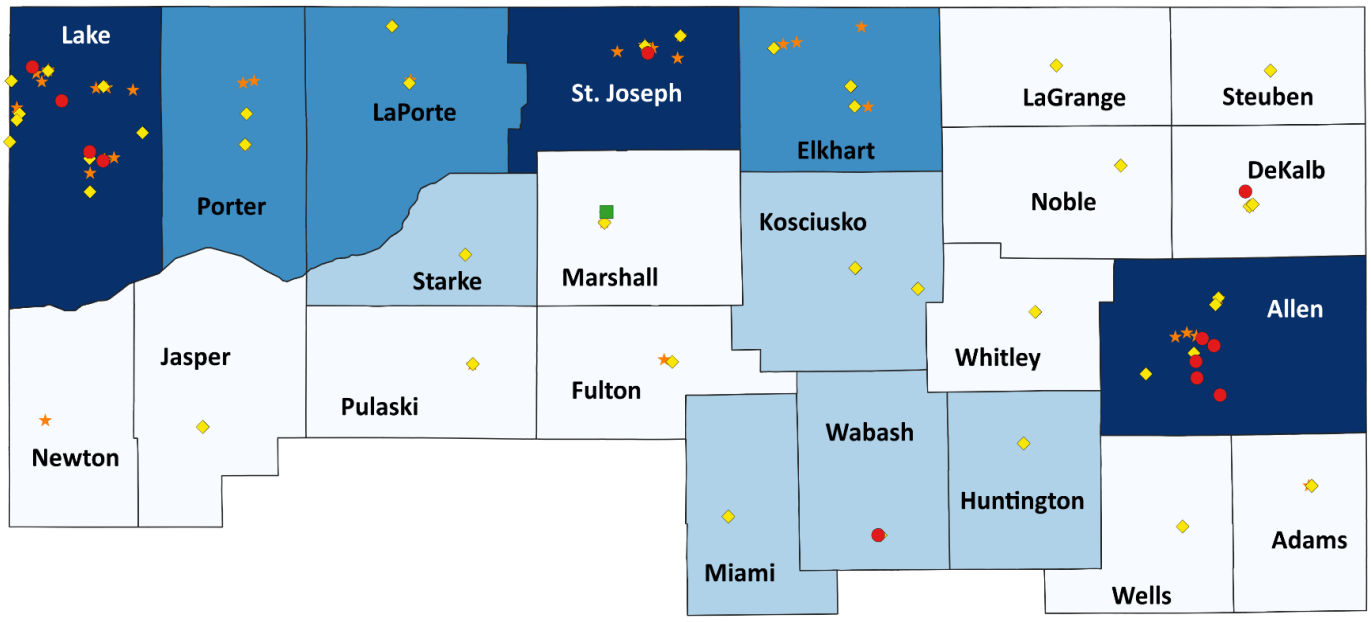
Utilization of SUD services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, increased 37.6% between the pre- and post-demonstration period, from an average of 952.3 visits in the pre-demonstration period to an average of 1310.8 visits during the demonstration. Utilization of Primary Care services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis, did not have significant results between the pre- and post-demonstration period.

Exhibit 40
Location of SUD Providers in the Northern Regions of the State
December 2018 vs December 2020

December 2018



December 2020

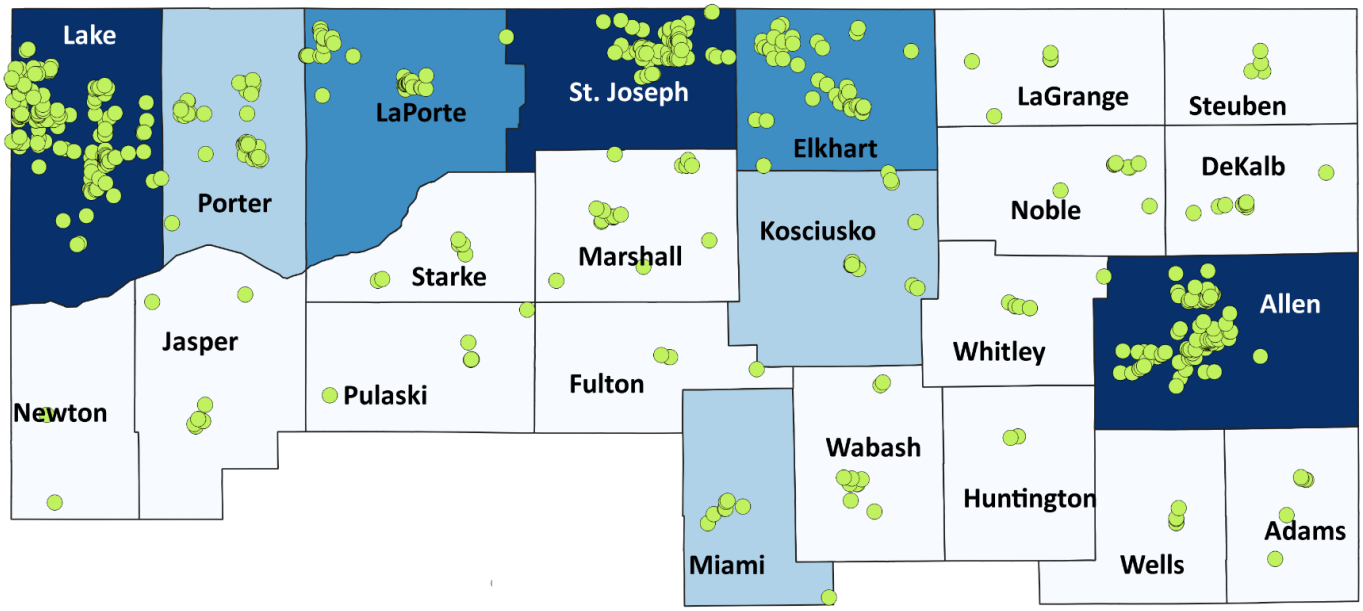


Number of Individuals with SUD Utilization
Up to 500 | 501 - 1,500 | 1,501 - 2,500 | More than 2,500

Provider Type
IMD | Residential | Inpatient Hospital | OTP

Exhibit 41
Location of SUD Outpatient Providers in the Northern Regions of the State
December 2018 vs December 2020

December 2018



December 2020

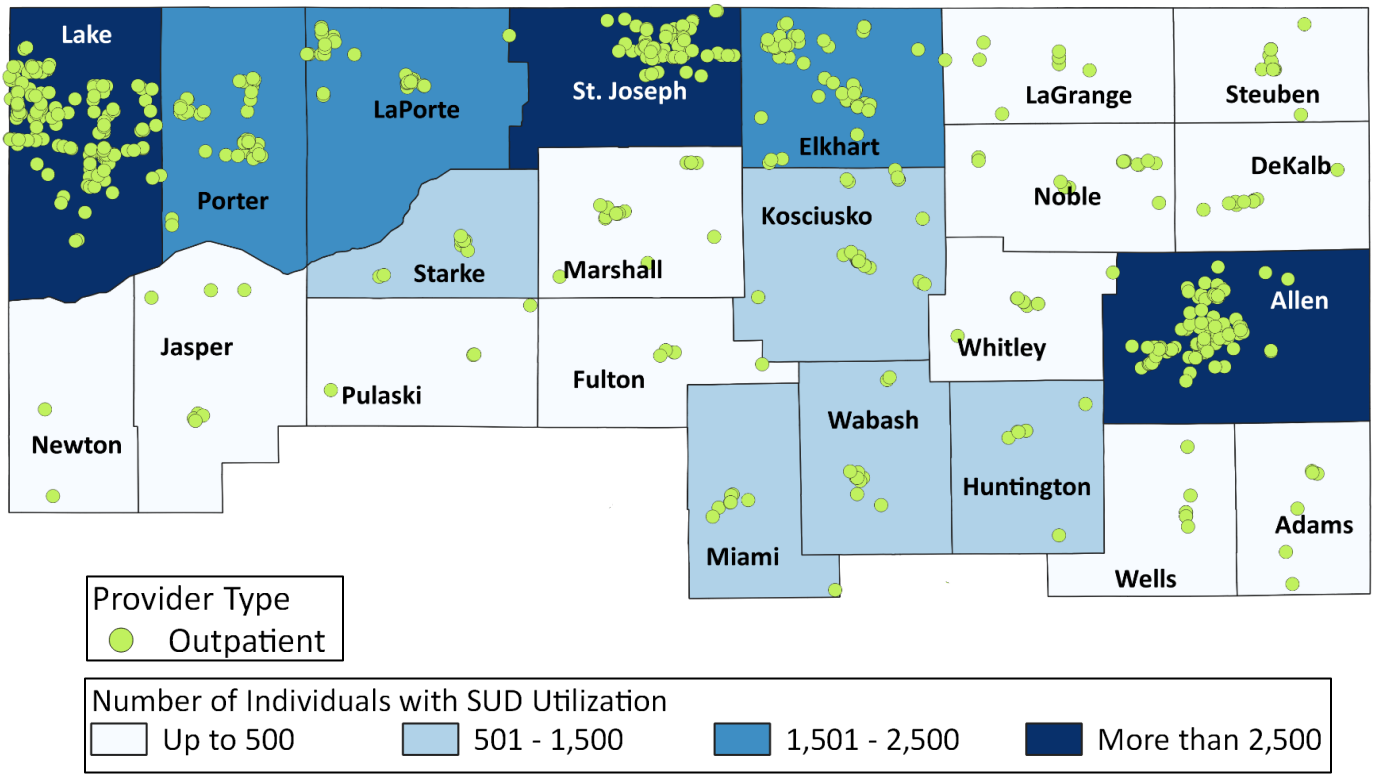


Exhibit 42
Location of SUD Providers in the Central Regions of the State
December 2018 vs December 2020

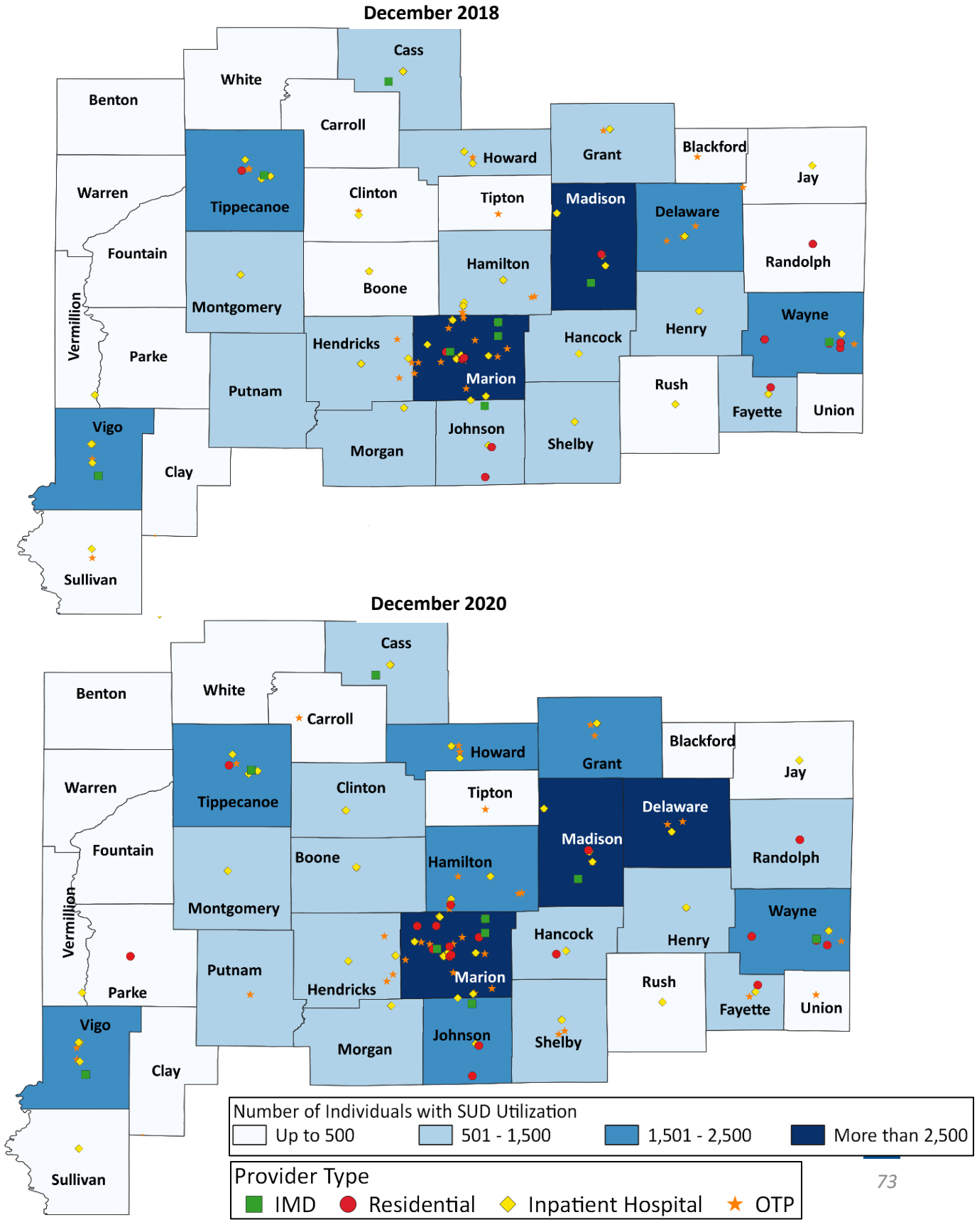


Exhibit 43

Location of SUD Outpatient Providers in the Central Regions of the State

December 2018 vs December 2020

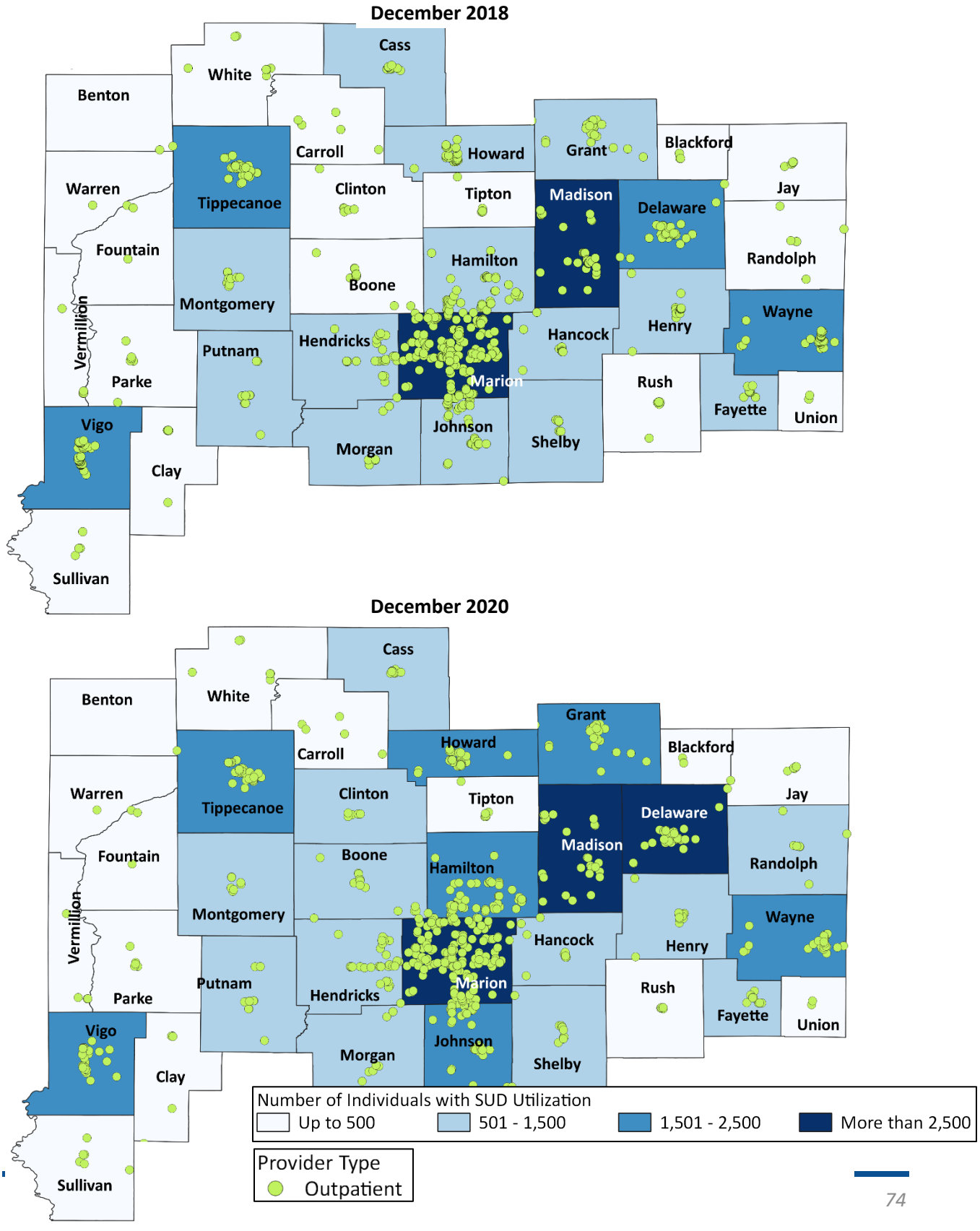


Exhibit 44
Location of SUD Providers in the Southern Regions of the State
December 2018 vs December 2020

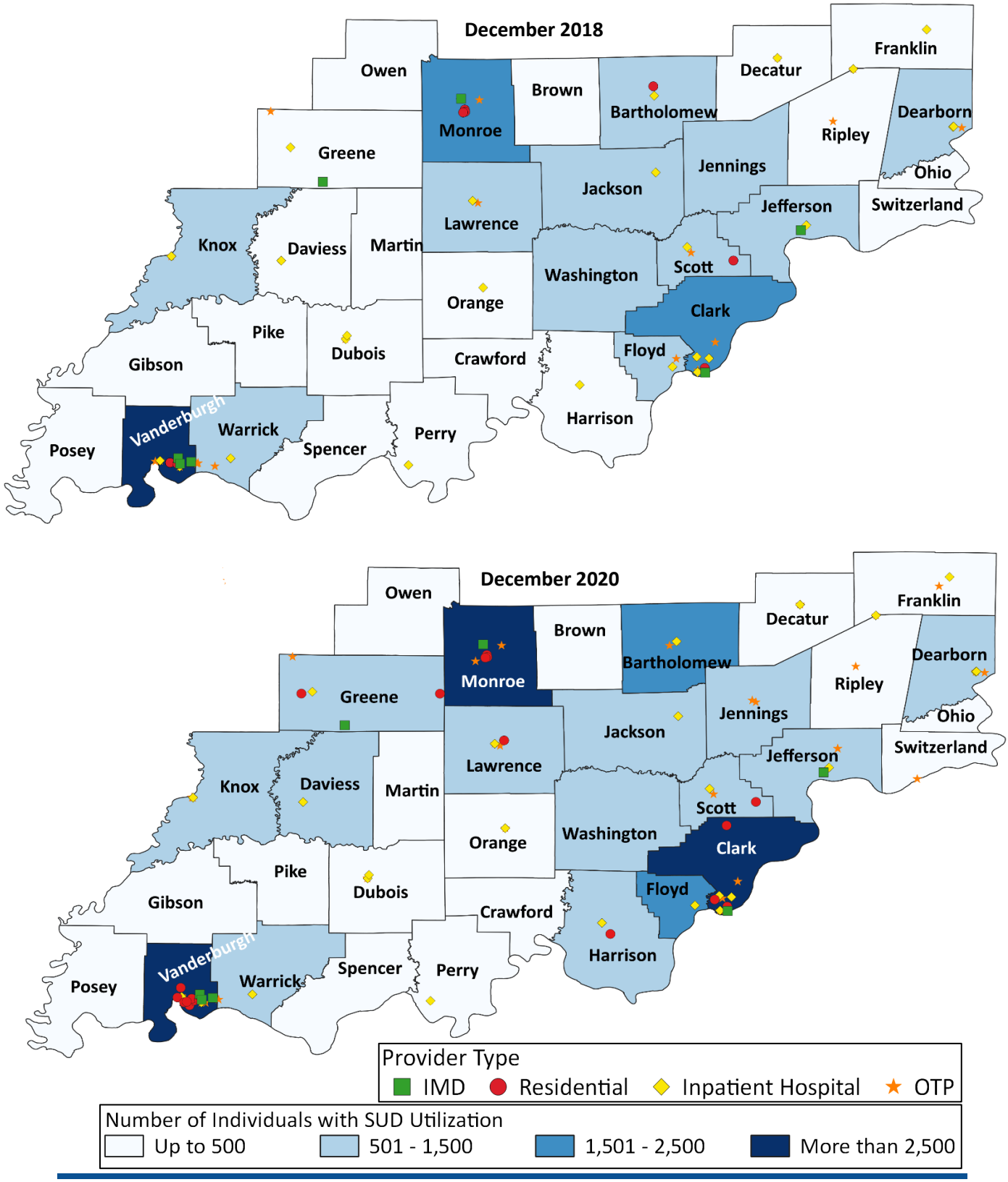


Exhibit 45
Location of SUD Outpatient Providers in the Southern Regions of the State
December 2018 vs December 2020

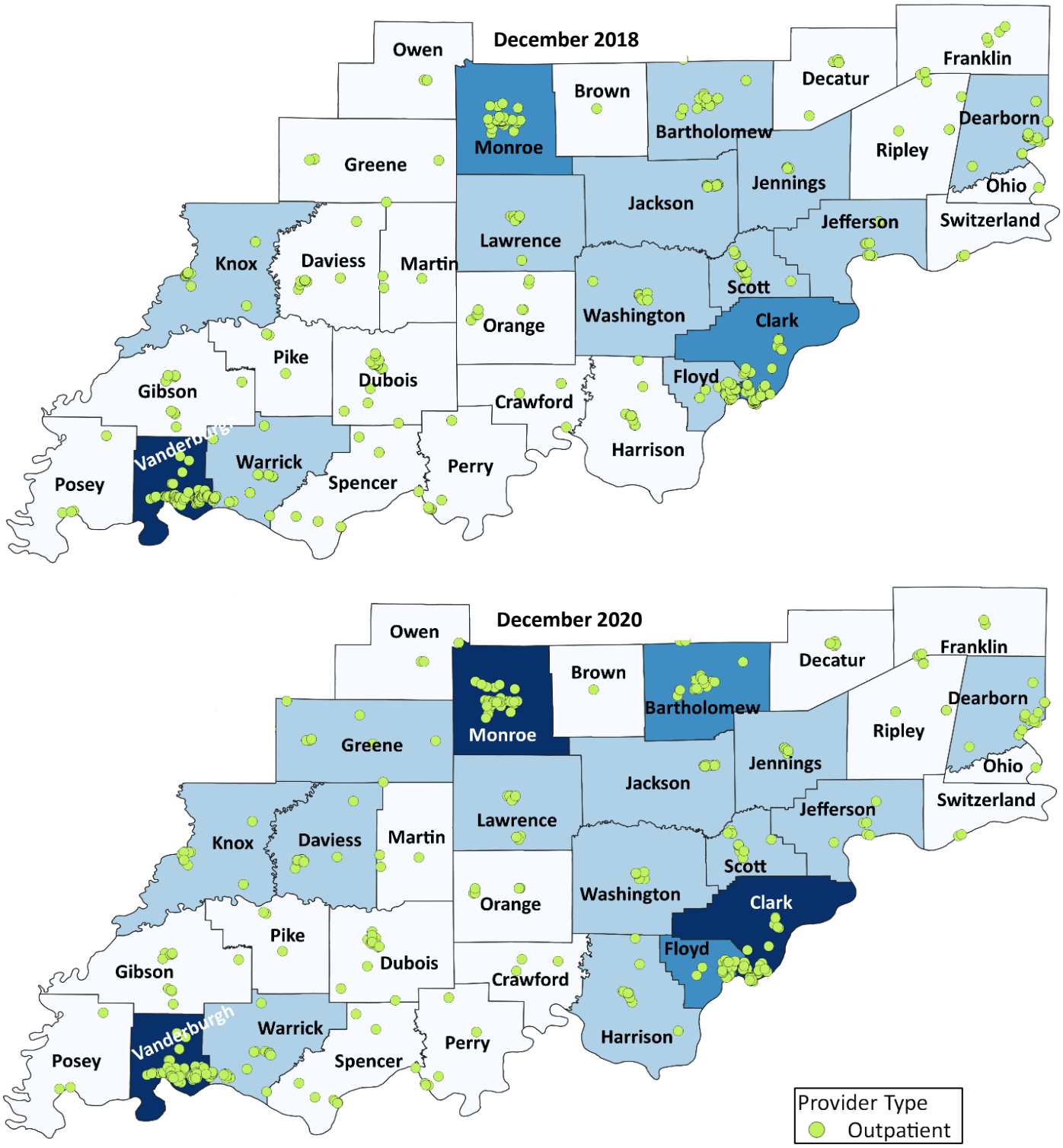
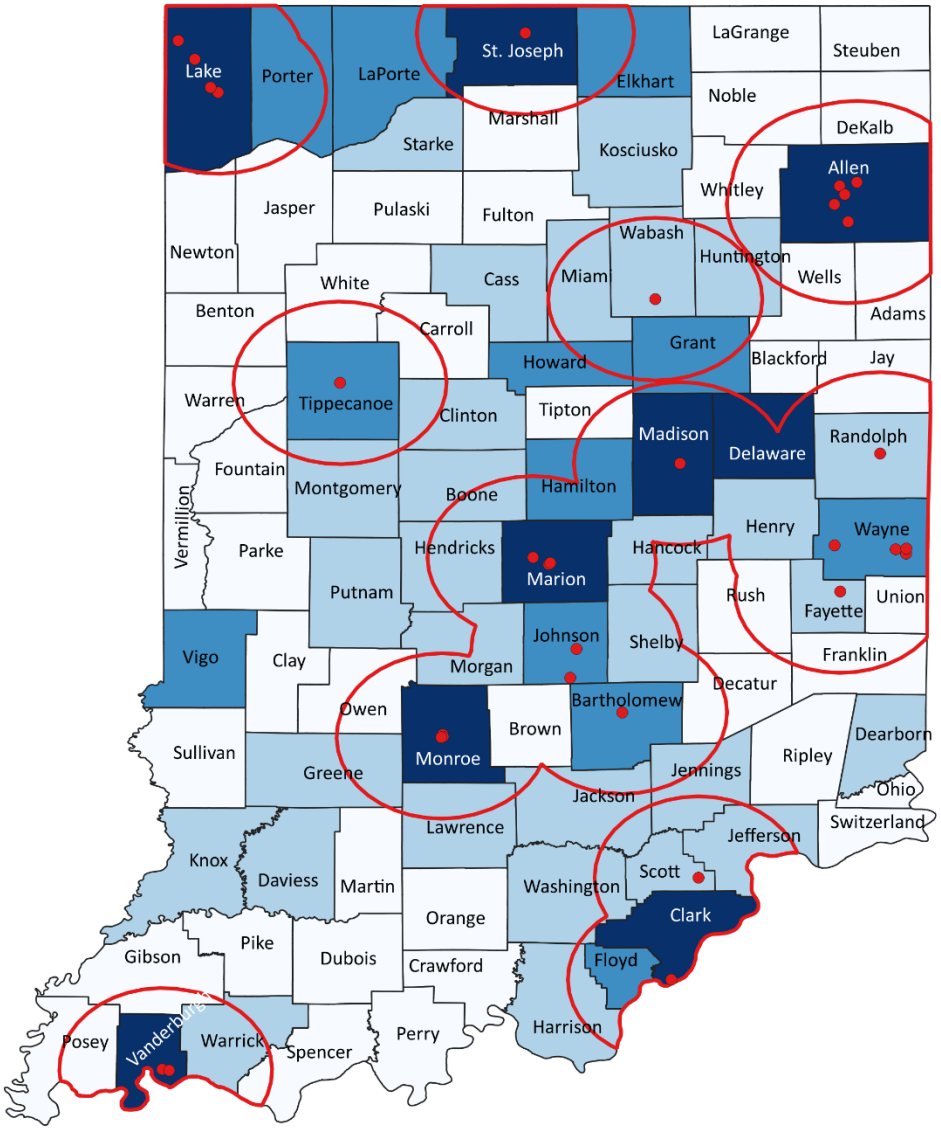
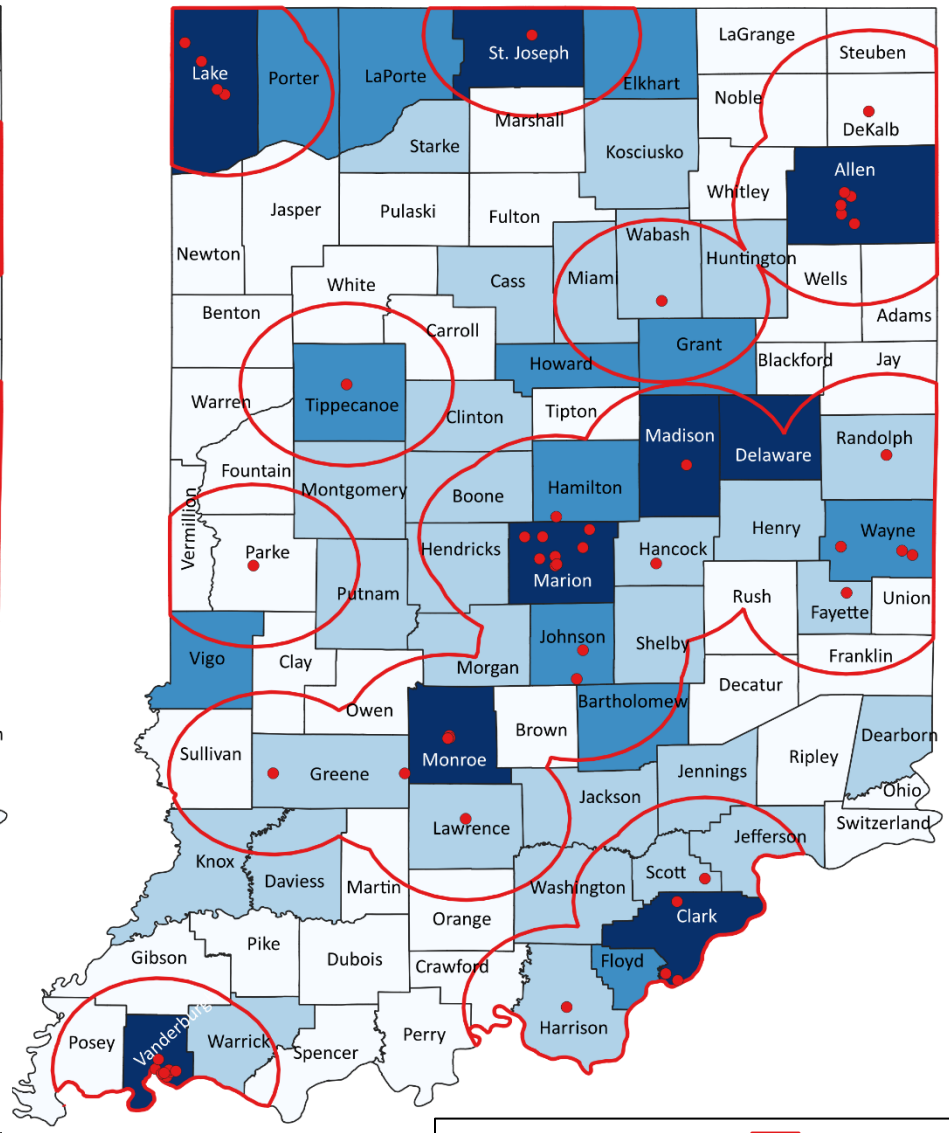


Exhibit 46
Comparison of Residential Treatment Providers Under Contract with FSSA, December 2018 and December 2020

Residential Providers as of December 2018



Residential Providers as of December 2020



Number of Individuals with SUD Utilization
Up to 500 | 501 - 1,500 | 1,501 - 2,500 | More than 2,500

Residential Providers | 20 Mile Radius

State SUD Implementation Plan

Four items were built into FSSA's protocol related to provider capacity. All have been completed in the timeframe outlined by FSSA. The items included in the protocol are specific to systems tracking and reporting by ASAM levels as opposed to items related to expanding capacity per se.

Exhibit 47
Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 4

	Action	Intended Completion Date	Was Action Completed?	Notes
24	Create new provider specialty for residential addictions facilities	03/01/2018	Yes, 03/01/2018	
25	Data reporting by provider specialty and ASAM level of care	03/31/2018	Yes, 03/31/2018	
26	New training materials on 1115-approved services as well as provider enrollment for residential facilities	Early 2018	Yes, 01/04/2018	This is the date of initial materials. Additional materials released throughout 2018.
27	Assessment of ASAM providers and services (by level of care, includes MAT)	12/31/2018	Yes, 09/30/2018	

Stakeholder Feedback

Beneficiaries, providers, and the MCEs who provided feedback all indicated specific areas where provider supply is lower than needed to deliver SUD services. Of particular note was supportive housing, ASAM 3.1 residential, and ASAM 3.7 residential.

Exhibit 48
Stakeholder Feedback Related to CMS Milestone 4

	Topic	From Whom	Type of Feedback	Feedback
1	Ease of finding treatment options	Beneficiaries	Critique	Almost all members stated that they had trouble finding access to care near their home county. Many had to travel at least one to two hours to get care. The exception appeared to be in the Southwest Region (Evansville).
		Beneficiaries	Neutral	Some members had difficulties finding providers who would take Medicaid, yet others were able to access care immediately.
2	Services hard to access	Beneficiaries	Critique	Most often mentioned include: supportive housing, specifically one that will accept member who is receiving MAT; therapists, transportation; and dental care.
		Beneficiaries	Critique	Other services mentioned include: help with paying for medications when insurance won't cover it; IOP classes not covered by insurance; treatment places where you can bring your children or assistance with getting daycare; and a place for single fathers to go to get help so they won't lose their children.
		MCEs	Critique	MCEs noted counts of supportive housing, sober living, OTP, PHP, and ASAM level 3.1 residential treatment provider settings are low and present issues with access on the continuum of care. Additionally, the MCEs expressed that the lack of ASAM level 3.7 is a cause for concern as IMDs are not equipped onsite for medical emergencies.
		Providers	Critique	Providers mentioned the low levels of supportive housing, sober living, peer supports, IOP, OTP, ASAM 3.1 and 3.7 residential providers. Several providers expressed concern with the limits on the number of OTP programs allowed as per Indiana Code 12-23-18-5.5.

Milestone #5: Implementation of Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse

Evaluation Measures

Four measures were examined to assess the implementation of comprehensive treatment and prevention strategies to address opioid abuse. In Exhibit 49 below, it shows that the desired outcome was met in all four measures. A test for statistical significance was conducted on three of the four measures. The outcome was statistically significant in the results for all three measures. More detailed information can be found on each measure in the pages that follow.

Exhibit 49

Summary of Findings for Metrics Mapped to CMS Milestone 5

Results Shown Below are for the Total Demonstration Population

	Measure Examined	Desired Outcome	Outcome Met?	Statistically Significant?	Statistical Test
1	Use of Opioids at High Dosage in Persons Without Cancer	Decrease	Yes	Yes	Chi-square
2	Use of Opioids from Multiple Providers in Persons Without Cancer	Decrease	Yes	Yes	Chi-square
3	Use of Opioids at High Dosage from Multiple Providers in Persons Without Cancer	Decrease	Yes	N/A	not reportable (low volume)
4	Concurrent Use of Opioids and Benzodiazepines	Decrease	Yes	Yes	Chi-square

Exhibit 50

Results from CMS Metric #18: Use of Opioids at High Dosage in Persons Without Cancer

Research Question:

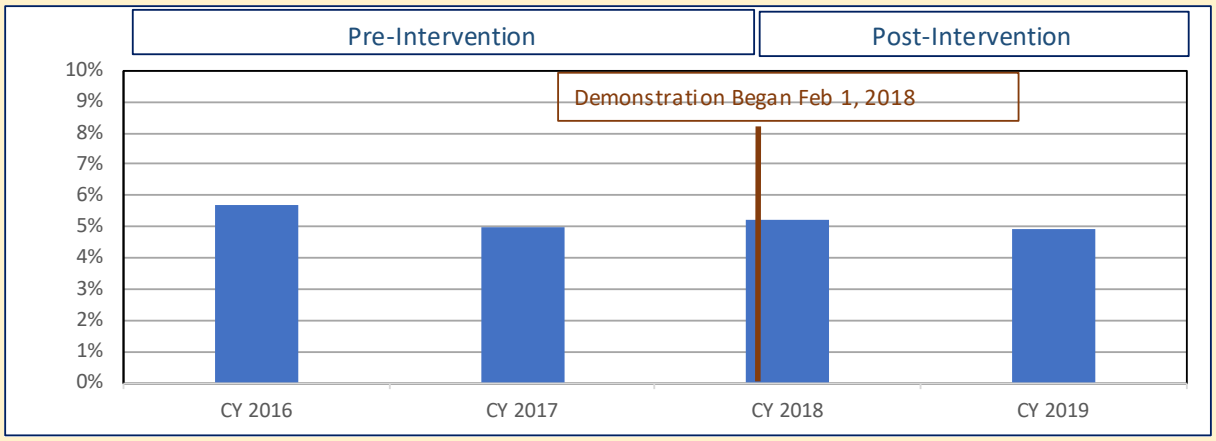
Does the level and trend in the rate of use of opioids at high dosage in persons without cancer decrease in the demonstration period?

Measure(s) Used to Answer Question:

Use of Opioids at High Dosage in Persons Without Cancer

Measure Steward: National Quality Forum #2940 [CMS Monitoring Metric #18]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	Chi-Square
CY2016-2017 average	5.3%	**Probability:**	0.0094
CY2018-2019 average	5.1%	**Finding:**	Significant
Change	-5.3%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-2.8%	5.0%	Northwest Region	-38.2%	2.1%
OUD	-6.8%	10.6%	North Central Region	-13.7%	8.7%
Dual Eligible	-53.4%	3.1%	Northeast Region	4.1%	7.6%
Pregnant Women	60.0%	0.8%	West Central Region	-15.6%	4.4%
Criminally Involved	43.1%	4.2%	Central Region	7.0%	5.9%
MRO	-20.7%	3.7%	East Central Region	-7.4%	4.4%
			Southwest Region	4.4%	4.3%
			Southeast Region	-2.9%	5.2%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		Sample is too small to report on (n < 50 obs)

The use of opioids at high dosage in persons without cancer decreased 5.3% during the demonstration, from a pre-demonstration average of 5.3% to a demonstration average of 5.1%. Percentage change values varied by subpopulation and region. The absolute average rate during the demonstration period was lower than the statewide average for all subpopulations except OUD. Four regions had an absolute rate below the statewide average, the other four were above the statewide average.

Exhibit 51

Results from CMS Metric #19: Use of Opioids from Multiple Providers in Persons Without Cancer

Research Question:

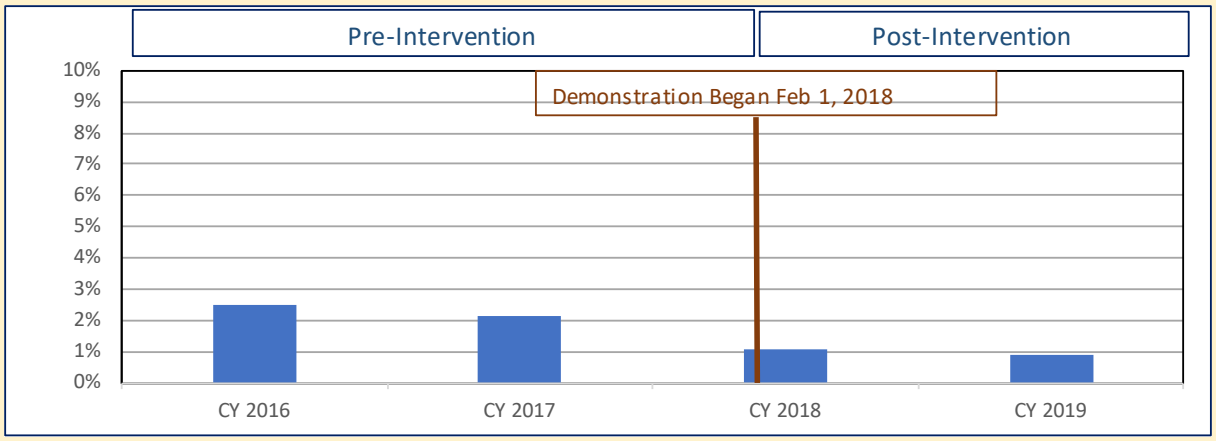
Does the level and trend in the rate of use of opioids from multiple providers in persons without cancer decrease in the demonstration period?

Measure(s) Used to Answer Question:

Use of Opioids from Multiple Providers in Persons Without Cancer

Measure Steward: National Quality Forum #2950 [CMS Monitoring Metric #19]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	Chi-Square
CY2016-2017 average	2.3%	**Probability:**	< .0001
CY2018-2019 average	1.0%	**Finding:**	Significant
Change	-57.0%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-59.6%	0.9%	Northwest Region	-56.5%	0.6%
OUD	-64.9%	2.4%	North Central Region	-60.5%	0.7%
Dual Eligible	-100.0%	0.0%	Northeast Region	-45.6%	1.1%
Pregnant Women	-30.0%	3.2%	West Central Region	-38.8%	1.4%
Criminally Involved			Central Region	-56.3%	1.5%
MRO	-44.1%	1.7%	East Central Region	-49.7%	0.8%
			Southwest Region	-74.3%	0.7%
			Southeast Region	-49.0%	0.7%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		Sample is too small to report on (n < 50 obs)

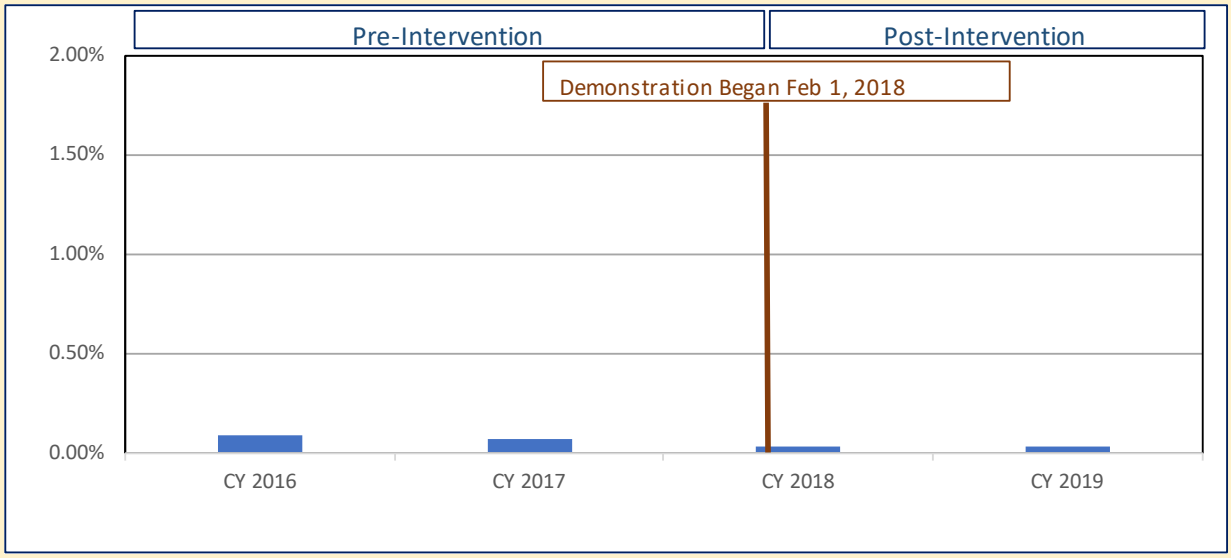
The use of opioids from multiple providers in persons without cancer decreased 57.0% during the demonstration, from a pre-demonstration average of 2.3% to a demonstration average of 1.0%. Improvement was seen in all subpopulations and regions (the sample for criminally involved was too small to report on). All regions had an absolute rate during the demonstration of 1.5% or lower. The highest rate was observed among pregnant women.

Exhibit 52
Results from CMS Metric #20:
Use of Opioids at High Dosage and from Multiple Providers in Persons Without Cancer

Research Question:
Does the level and trend in the rate of use of opioids at high dosage and from multiple providers in persons without cancer decrease in the demonstration period?

Measure(s) Used to Answer Question:
Use of Opioids at High Dosage and from Multiple Providers in Persons Without Cancer
Measure Steward: National Quality Forum #2951 [CMS Monitoring Metric #20]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	Chi-Square
CY2016-2017 average	0.08%	**Finding:**	Not reportable
CY2018-2019 average	0.03%		Low sample size
Change	-62.5%		

The number of beneficiaries with use of opioids at high dosage and from multiple providers in persons without cancer was 53 in CY 2016, 35 in CY 2017, 9 in CY 2018, and 10 in CY 2019. As a result of the low sample, no analysis was conducted on cohort populations or a test of statistical significance completed.

Exhibit 53

Results from CMS Metric #21: Concurrent Use of Opioids and Benzodiazepines

Research Question:

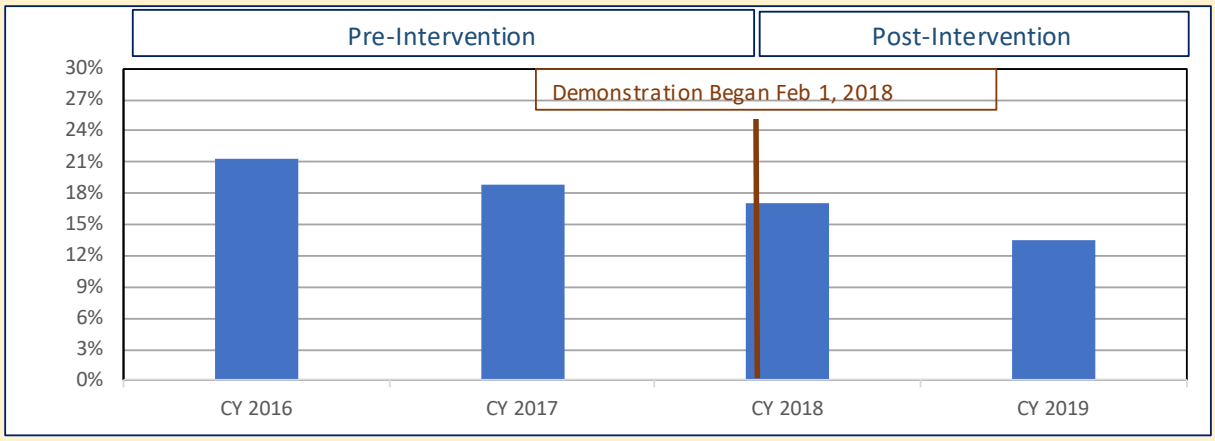
Does the level and trend in concurrent use of opioids and benzodiazepines decrease in the demonstration period?

Measure(s) Used to Answer Question:

Concurrent Use of Opioids and Benzodiazepines

Measure Steward: National Quality Forum #3389 [CMS Monitoring Metric #21]

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	Chi-Square
CY2016-2017 average	20.1%	**Probability:**	<.0001
CY2018-2019 average	15.3%	**Finding:**	Significant
Change	-24.1%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-23.5%	15.4%	Northwest Region	-23.1%	20.4%
OUD	-29.0%	20.1%	North Central Region	-13.8%	17.5%
Dual Eligible	-42.4%	8.3%	Northeast Region	-53.3%	5.8%
Pregnant Women	-21.8%	3.5%	West Central Region	-32.6%	15.9%
Criminally Involved			Central Region	-18.4%	13.4%
MRO	-29.6%	18.1%	East Central Region	-21.2%	14.3%
			Southwest Region	-23.5%	20.3%
			Southeast Region	-22.0%	15.0%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		Sample is too small to report on (n < 50 obs)

The concurrent use of opioids and benzodiazepines decreased 24.1% during the demonstration, from a pre-demonstration average of 20.1% to a demonstration average of 15.3%. Improvement was seen in all subpopulations and regions (the sample for criminally involved was too small to report on). Four regions had an absolute rate during the demonstration above the statewide average and four were below. The highest absolute rates were observed among the OUD and MRO subpopulations.

State SUD Implementation Plan

Two of the three items in the Implementation Protocol related to treatment and prevention strategies for opioid abuse have been completed. These relate to emergency responder reimbursement of naloxone and expanded coverage of peer recovery coaches, crisis intervention, and intensive outpatient treatment. The expanded use of INSPECT (Indiana's prescription drug monitoring program) across all hospitals in the State is still in process.

Exhibit 54
Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 5

	Action	Intended Completion Date	Was Action Completed?	Notes
28	Consider options for emergency responder reimbursement of naloxone	Early 2018	Yes, 03/31/2018	
29	Integrate all Indiana hospitals with INSPECT (the State's prescription drug monitoring program)	Within 3 years	No	In process; 133 of 172 (77.2%) hospitals integrated as of 12/31/2020
30	Expand coverage of peer recovery coaches	No specific date	Yes, 07/01/2019	

Stakeholder Feedback

Beneficiaries offered feedback to the FSSA on modes of communication to offer better awareness of the Medicaid SUD benefit to consumers. Both providers and MCEs offered recommendations on modes of communication to them regarding FSSA policies, billing, and authorization requirements.

Exhibit 55
Stakeholder Feedback Related to CMS Milestone 5

	Topic	From Whom	Type of Feedback	Feedback
1	Guidance from the FSSA upon rollout of the demonstration	Providers	Critique	Expressed concerns that initial guidance at rollout was not clear. Perception was that the demonstration may have been rolled out too quickly. Although improvements were noted, continued challenges with prior authorization and billing.
		MCEs	Critique	Concerns with the lack of clarity on FSSA policies at the start of the demonstration. Early example: Original length of stay guidance given to providers was 30 days for residential. More recent examples: how to treat community outings from residential treatment centers; PHE length of stay policies for inpatient/residential services.
2	Systems-related readiness	Providers	Critique	While there has been progress, there are lingering authorization, billing and occasional credentialing issues with the MCEs compounded when FSSA issues new guidance or policy.
		Providers	Recommen-dation	Expressed concern that FSSA is issuing guidance or policy changes associated with the waiver without allowing sufficient time for the MCEs and providers to implement the necessary system changes to process claims accurately. Providers suggested working more closely with the MCEs and providers to come up with an implementation plan.
3	Written communications from FSSA to providers	Providers	Critique	Providers indicated that it was hard for them to track policy changes using the provider bulletins due to multiple releases and sometimes corrections to previous bulletins.
		Providers	Recommen-dation	Although the bulletins are appreciated, recommendation was to issue SUD provider-specific bulletins that consolidated information in one place.
		MCEs	Recommen-dation	While well intended, provider bulletins have contributed to confusion in the SUD provider community. Suggested that a dedicated SUD provider manual would be helpful to explain coverage, billing and authorization policies specific to SUD, such as available for behavioral health providers.

Exhibit 55
Stakeholder Feedback Related to CMS Milestone 5 (continued)

	Topic	From Whom	Type of Feedback	Feedback
4	Other modes of communication	Providers	Recommen-dation	The majority of providers would like a dedicated contact person at the FSSA to call with clarifying questions.
		Beneficiaries	Recommen-dation	Advertise provider services and locations. Make communications real by showing pictures that illustrate the impact addictions has on you and your family. Members mentioned online, social media, radio, tv, print media, and billboards as examples.
		Beneficiaries	Recommen-dation	Have more readily available pamphlets with information about what Medicaid covers, provider services, and locations on where to get treatment. Suggested locations to place pamphlets: local WIC, welfare, offices; jails and parole offices; homeless shelters; AA/NA meeting sites; provider waiting rooms.
		Beneficiaries	Recommen-dation	Conduct targeted outreach to teens/young adults via social media on the dangers of addiction and where to get help.
5	FSSA initiatives	Providers	Compliment	Residential treatment and inpatient providers expressed that the FSSA single prior authorization form has been an improvement.
		Providers, MCEs	Compliment	Both stated that they appreciate the open-door policy of the FSSA and its divisions, specifically, the State's willingness to work collaboratively with them on resolving issues. Quarterly provider meetings are very beneficial.
		Providers	Critique	Providers of outpatient services, in particular those who formerly offered MRO benefits, expressed ongoing concerns with obtaining prior authorization and resolving billing issues. Specifically, documentation requirements and inconsistent criteria used.
6	Effects of the demonstration	Providers	Critique	Providers were grateful to have the waiver and the access to more SUD treatment settings and services for Hoosiers. However, many of them expressed concern that the focus on opioids was marginalizing other substances that are far more dangerous, such as fentanyl. Many suggested more attention should be directed to alcohol and methamphetamines. Additionally, some providers expressed concerns that tobacco and vaping addiction are growing among the adolescent population and it is not currently deemed a 'covered' service for treatment.

Milestone #6: Improved Care Coordination and Transitions Between Levels of Care

Evaluation Measures

Eleven measures were examined to assess improvement in care coordination and transitions between levels of care. In Exhibit 56 below, it shows that the desired outcome was met in 10 out of the 11 measures. A test for statistical significance was conducted on ten of the 11 measures. Among these ten measures, the desired outcomes was found to be statistically significant in nine of them. More detailed information can be found on each measure in the pages that follow.

Exhibit 56

Summary of Findings for Metrics Mapped to CMS Milestone 6

Results Shown Below are for the Total Demonstration Population

	Measure Examined	Desired Outcome	Outcome Met?	Statistically Significant?	Statistical Test
1	Initiation of Alcohol and Other Drug Dependence Treatment, Total AOD Population	Increase	Yes	Yes	Chi-square
2	Initiation of Alcohol and Other Drug Dependence Treatment, Alcohol Abuse Only	Increase	No	Yes	Chi-square
3	Initiation of Alcohol and Other Drug Dependence Treatment, Opioid Abuse Only	Increase	Yes	Yes	Chi-square
4	Initiation of Alcohol and Other Drug Dependence Treatment, Abuse Other than Alcohol or Opioid	Increase	Yes	Yes	Chi-square
5	Engagement of Alcohol and Other Drug Dependence Treatment, Total AOD Population	Increase	Yes	Yes	Chi-square
6	Engagement of Alcohol and Other Drug Dependence Treatment, Alcohol Abuse Only	Increase	Yes	Yes	Chi-square
7	Engagement of Alcohol and Other Drug Dependence Treatment, Opioid Abuse Only	Increase	Yes	Yes	Chi-square
8	Engagement of Alcohol and Other Drug Dependence Treatment, Abuse Other than Alcohol or Opioid	Increase	Yes	Yes	Chi-square
9	Follow-up After ED Visit for Alcohol or Other Drug Dependence, 7 day	Increase	Yes	Yes	Chi-square
10	Follow-up After ED Visit for Mental Illness, 7 day	Increase	Yes	Yes	Chi-square
11	Rate of Transition to ASAM Level 1 and 2 Services After Receiving ASAM Leve 3 or 4 Service	Increase	Yes	N/A	no test run

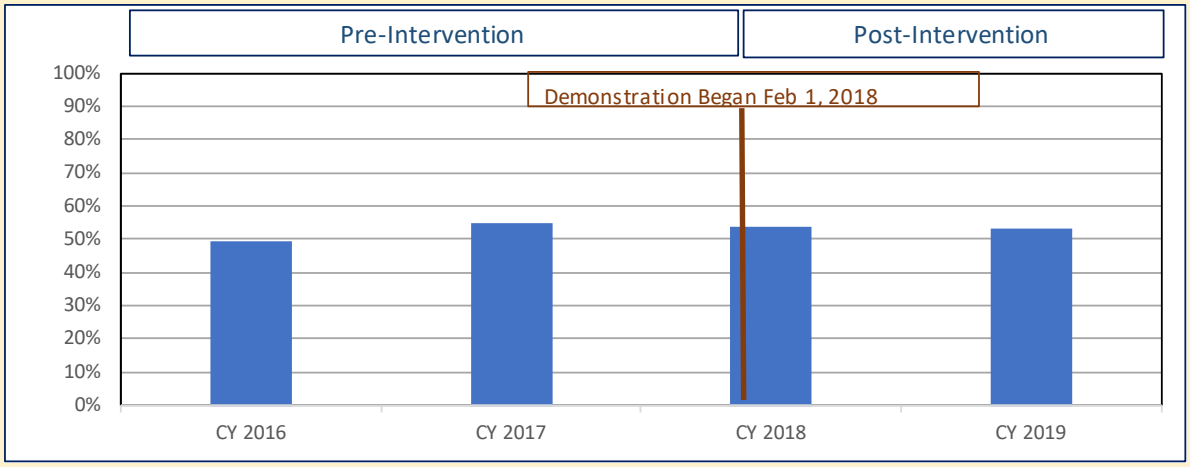
Exhibit 57

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Initiation, Total AOD Population

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Initiation, Total AOD Population***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	52.1%	**Probability:**	<.0001
CY2018-2019 average	53.6%	**Finding:**	Significant
Change	2.9%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	4.7%	54.1%	Northwest Region	2.3%	52.0%
OUD	7.4%	63.8%	North Central Region	12.2%	53.7%
Dual Eligible	-5.0%	51.2%	Northeast Region	0.7%	56.0%
Pregnant Women	7.8%	58.5%	West Central Region	6.7%	56.6%
Criminally Involved	16.2%	62.9%	Central Region	-3.2%	50.4%
MRO	8.3%	58.7%	East Central Region	3.0%	56.2%
			Southwest Region	5.1%	52.8%
			Southeast Region	3.8%	52.6%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of initiation in treatment for the total AOD population increased 2.9% during the demonstration, from a pre-demonstration average of 52.1% to a demonstration average of 53.6%. Improvement was seen in all subpopulations and regions with the exception of dual eligibles and members in the Central Region. The actual rate of initiation was highest for the OUD and criminally involved subpopulations during the demonstration.

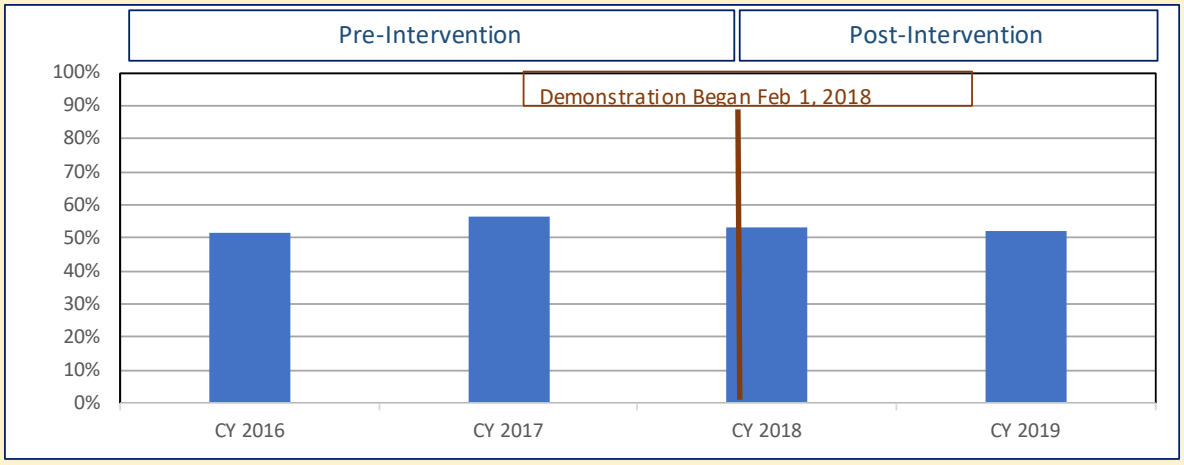
Exhibit 58

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Initiation, Alcohol Abuse only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Initiation, Alcohol Abuse only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	54.1%	**Probability:**	0.0023
CY2018-2019 average	52.7%	**Finding:**	Significant
Change	-2.6%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-2.5%	51.3%	Northwest Region	-2.6%	50.1%
OUD	-2.8%	65.3%	North Central Region	2.4%	52.4%
Dual Eligible	-1.1%	56.9%	Northeast Region	-1.6%	57.4%
Pregnant Women	4.4%	55.2%	West Central Region	0.5%	55.4%
Criminally Involved	8.4%	59.4%	Central Region	-6.1%	49.9%
MRO	2.4%	58.2%	East Central Region	-3.9%	56.8%
			Southwest Region	-0.8%	51.1%
			Southeast Region	-4.4%	51.4%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of initiation in treatment for the population specific to alcohol abuse decreased 2.6% during the demonstration, from a pre-demonstration average of 54.1% to a demonstration average of 52.7%. There was improvement seen among pregnant women and the criminally involved subpopulations as well as the North Central region. But most other regions so no improvement in this initiation rate during the demonstration.

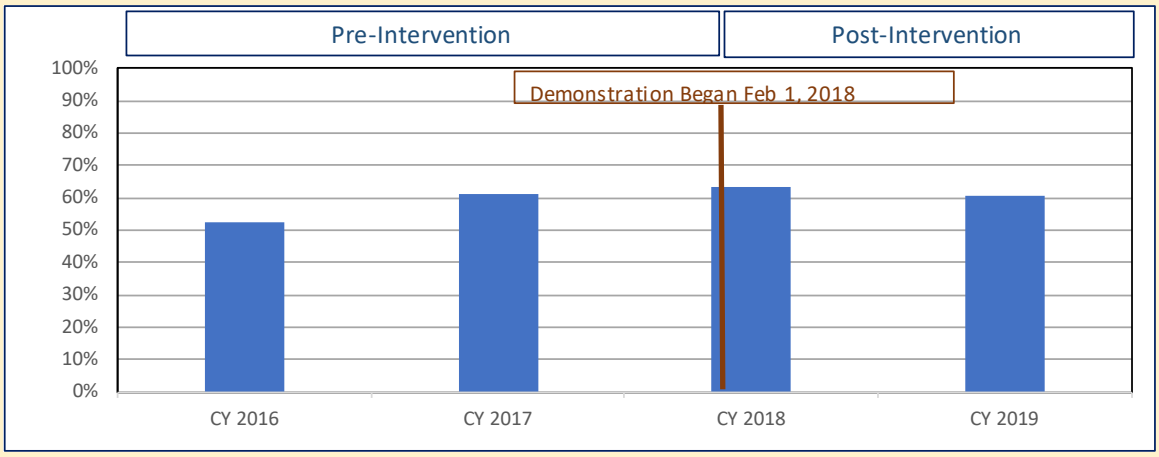
Exhibit 59

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Initiation, Opioid Abuse only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Initiation, Opioid Abuse only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	56.6%	**Probability:**	<.0001
CY2018-2019 average	62.0%	**Finding:**	Significant
Change	9.5%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	16.0%	67.7%	Northwest Region	13.3%	64.6%
OUD	9.5%	62.0%	North Central Region	24.8%	67.2%
Dual Eligible	-7.4%	48.2%	Northeast Region	3.1%	60.6%
Pregnant Women	15.6%	74.1%	West Central Region	3.7%	61.0%
Criminally Involved	21.9%	73.6%	Central Region	-0.6%	60.1%
MRO	7.9%	65.3%	East Central Region	7.6%	58.9%
			Southwest Region	23.5%	66.8%
			Southeast Region	14.7%	56.8%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of initiation in treatment for the population specific to opioid abuse increased 9.5% during the demonstration, from a pre-demonstration average of 56.6% to a demonstration average of 62.0%. The greatest improvement was seen among the population enrolled in managed care, pregnant women, and the criminally involved subpopulations. All regions saw improvement in the initiation rate during the demonstration with the exception of the Central Region. The southern regions saw the most improvement during the demonstration along with the North Central Region.

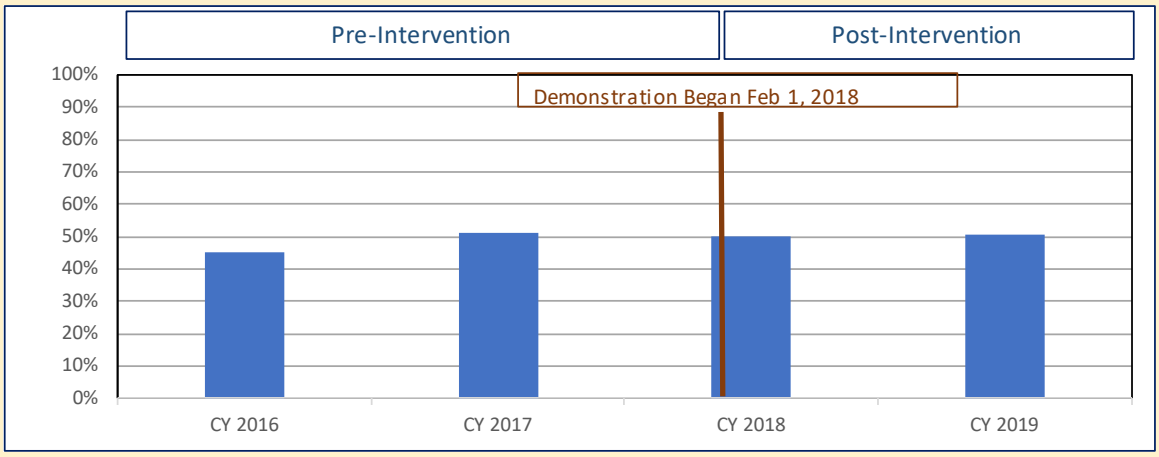
Exhibit 60

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Initiation, Abuse other than Alcohol or Opioid only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Initiation, Abuse other than Alcohol or Opioid only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	48.2%	**Probability:**	<.0001
CY2018-2019 average	50.4%	**Finding:**	Significant
Change	4.7%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	5.6%	49.9%	Northwest Region	5.0%	48.7%
OUD	4.5%	61.8%	North Central Region	18.9%	52.4%
Dual Eligible	-4.3%	51.1%	Northeast Region	5.7%	53.0%
Pregnant Women	8.2%	53.7%	West Central Region	17.6%	55.8%
Criminally Involved	9.4%	55.9%	Central Region	-3.0%	46.9%
MRO	4.8%	56.3%	East Central Region	7.0%	53.9%
			Southwest Region	1.9%	48.3%
			Southeast Region	0.5%	48.7%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of initiation in treatment for the population specific to abuse other than alcohol or opioids increased 4.7% during the demonstration, from a pre-demonstration average of 48.2% to a demonstration average of 50.4%. The greatest was improvement seen in the North Central and West Central Regions. These regions, along with the East Central Region, had the highest initiation rates compared to the statewide average by region. Pregnant women, criminally involved, and the MRO population also had rates above the statewide average.

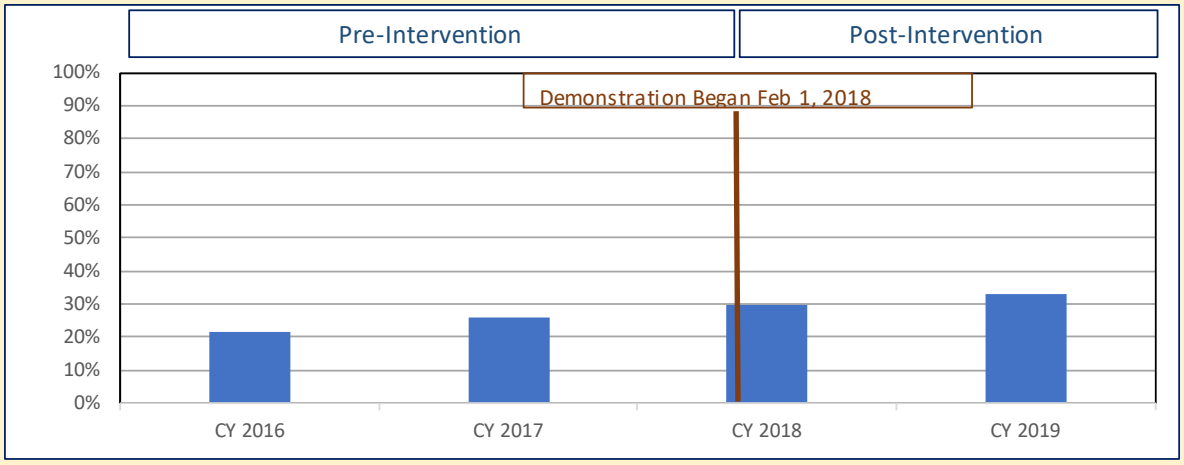
Exhibit 61

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Engagement, Total AOD Population

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Engagement, Total AOD Population***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	23.9%	**Probability:**	<.0001
CY2018-2019 average	31.6%	**Finding:**	Significant
Change	32.0%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	34.2%	35.1%	Northwest Region	37.5%	31.3%
OUD	30.5%	46.0%	North Central Region	64.0%	25.5%
Dual Eligible	16.6%	17.7%	Northeast Region	35.6%	26.2%
Pregnant Women	45.1%	37.6%	West Central Region	20.0%	28.3%
Criminally Involved	24.1%	42.9%	Central Region	24.5%	31.7%
MRO	16.3%	50.8%	East Central Region	43.6%	30.3%
			Southwest Region	19.1%	36.5%
			Southeast Region	47.0%	34.4%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of engagement in treatment for the total AOD population increased 32.0% during the demonstration, from a pre-demonstration average of 23.9% to a demonstration average of 31.6%. Improvement was seen in all subpopulations and regions. Similar to the rate of initiation, the actual rate of engagement was highest for the OUD, criminally involved, and MRO subpopulations during the demonstration.

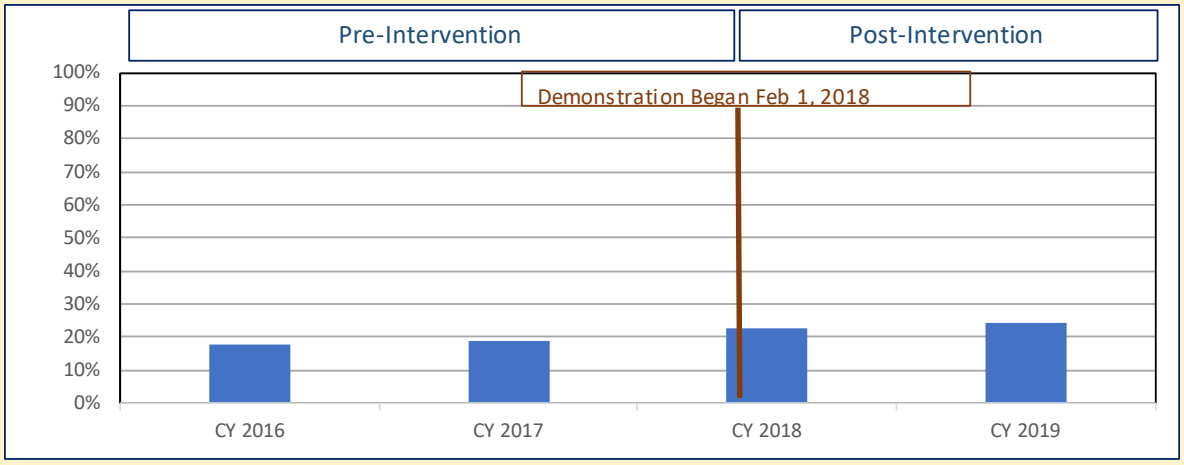
Exhibit 62

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Engagement, Alcohol Abuse only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Engagement, Alcohol Abuse only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	18.3%	**Probability:**	<.0001
CY2018-2019 average	23.7%	**Finding:**	Significant
Change	29.6%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	37.0%	26.1%	Northwest Region	44.4%	25.4%
OUD	21.4%	30.3%	North Central Region	105.3%	22.3%
Dual Eligible	4.6%	16.6%	Northeast Region	13.4%	21.6%
Pregnant Women	25.2%	33.3%	West Central Region	26.5%	22.5%
Criminally Involved	7.1%	25.2%	Central Region	32.2%	23.6%
MRO	26.6%	46.1%	East Central Region	25.9%	21.3%
			Southwest Region	5.8%	27.9%
			Southeast Region	30.6%	20.8%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of engagement in treatment for the population specific to alcohol abuse increased 29.6% during the demonstration, from a pre-demonstration average of 18.3% to a demonstration average of 23.7%. There was improvement seen among all subpopulations and regions examined. Each region's actual rate of engagement during the demonstration was near the statewide average. The highest rates of engagement were seen in the pregnant women and MRO subpopulations.

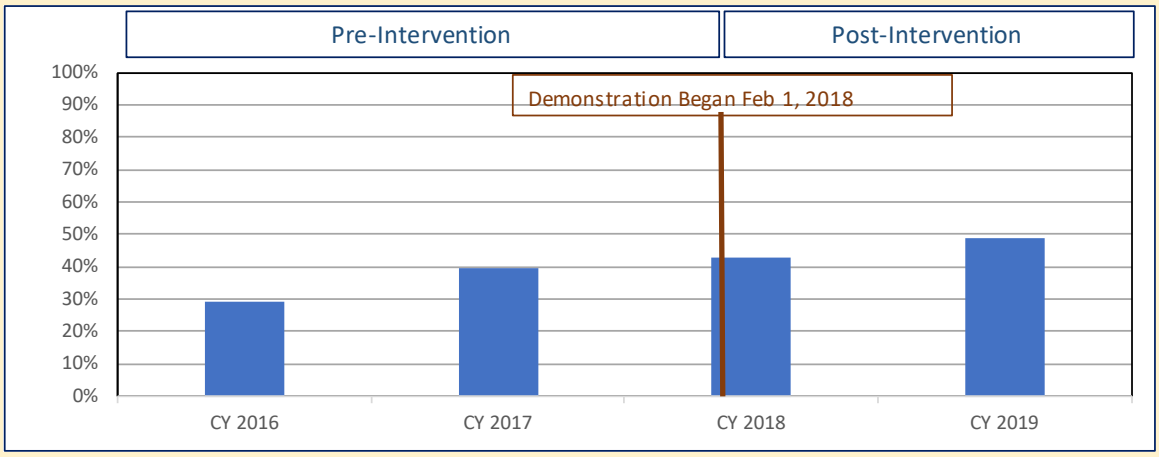
Exhibit 63

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Engagement, Opioid Abuse only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Engagement, Opioid Abuse only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	34.6%	**Probability:**	<.0001
CY2018-2019 average	45.9%	**Finding:**	Significant
Change	32.7%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	29.5%	52.2%	Northwest Region	43.5%	48.8%
OUD	32.9%	45.9%	North Central Region	32.6%	37.6%
Dual Eligible	61.0%	19.9%	Northeast Region	43.3%	35.1%
Pregnant Women	42.1%	55.8%	West Central Region	6.9%	39.2%
Criminally Involved	27.3%	56.7%	Central Region	17.7%	44.2%
MRO	14.6%	61.3%	East Central Region	59.3%	45.2%
			Southwest Region	35.1%	56.7%
			Southeast Region	49.6%	50.5%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of engagement in treatment for the population specific to opioid abuse increased 32.7% during the demonstration, from a pre-demonstration average of 34.6% to a demonstration average of 45.9%. All subpopulations and regions examined saw improvement during the demonstration, but the greatest improvement was seen among the dual eligible, pregnant women, and southern regions of the state. The highest rate of engagement was among members enrolled in managed care, pregnant women, the criminally involved, and the MRO subpopulations.

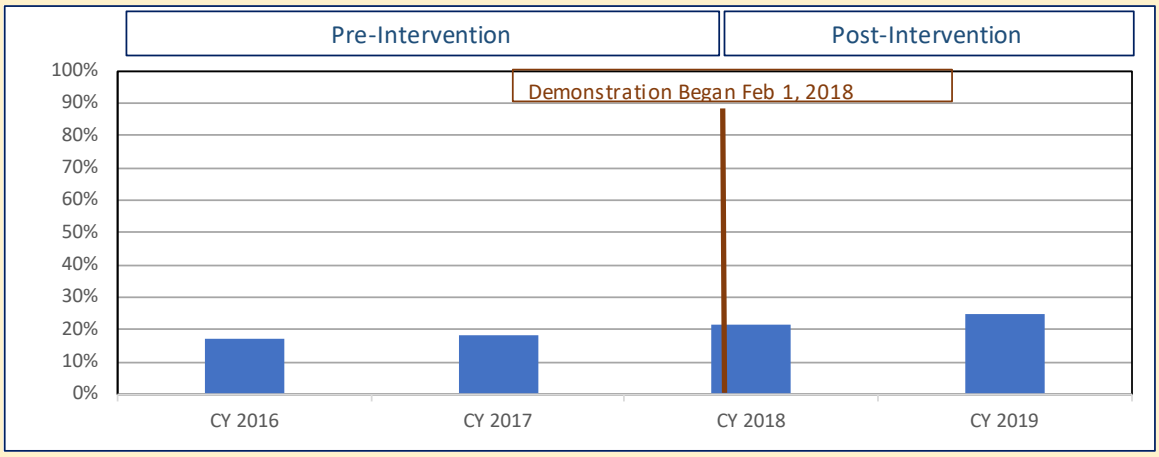
Exhibit 64

Results from CMS Metric #15: Initiation and Engagement of Alcohol and Other Drug Dependence Treatment Engagement, Abuse other than Alcohol or Opioid only

Research Question:
Does the level and trend of initiation and engagement in treatment increase in the SUD population in the demonstration period?

Measure(s) Used to Answer Question:
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
Measure Steward: NCQA, National Quality Forum #0004 [CMS Monitoring Metric #15]

Results for the Demonstration Population ***Engagement, Abuse other than Alcohol or Opioid only***



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	17.6%	**Probability:**	<.0001
CY2018-2019 average	23.2%	**Finding:**	Significant
Change	31.9%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	35.5%	25.0%	Northwest Region	29.2%	21.0%
OUD	27.6%	24.0%	North Central Region	104.8%	20.4%
Dual Eligible	-1.3%	11.8%	Northeast Region	68.5%	25.5%
Pregnant Women	52.2%	28.4%	West Central Region	30.4%	23.6%
Criminally Involved	33.3%	28.8%	Central Region	34.8%	20.4%
MRO	16.9%	43.8%	East Central Region	37.4%	18.3%
			Southwest Region	6.2%	29.4%
			Southeast Region	25.8%	20.8%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of engagement in treatment for the population specific to abuse other than alcohol or opioids increased 31.9% during the demonstration, from a pre-demonstration average of 17.6% to a demonstration average of 23.2%. All subpopulations and regions of the state saw an increase during the demonstration with the exception of dual eligibles. The actual rate of engagement, however, remains under 30% for all populations except MRO members which had an average engagement rate of 43.8% during the demonstration.

Exhibit 65

Results from CMS Metric #17a: Follow-up After ED Visit for Alcohol or Other Drug Dependence, 7 days

Research Question:

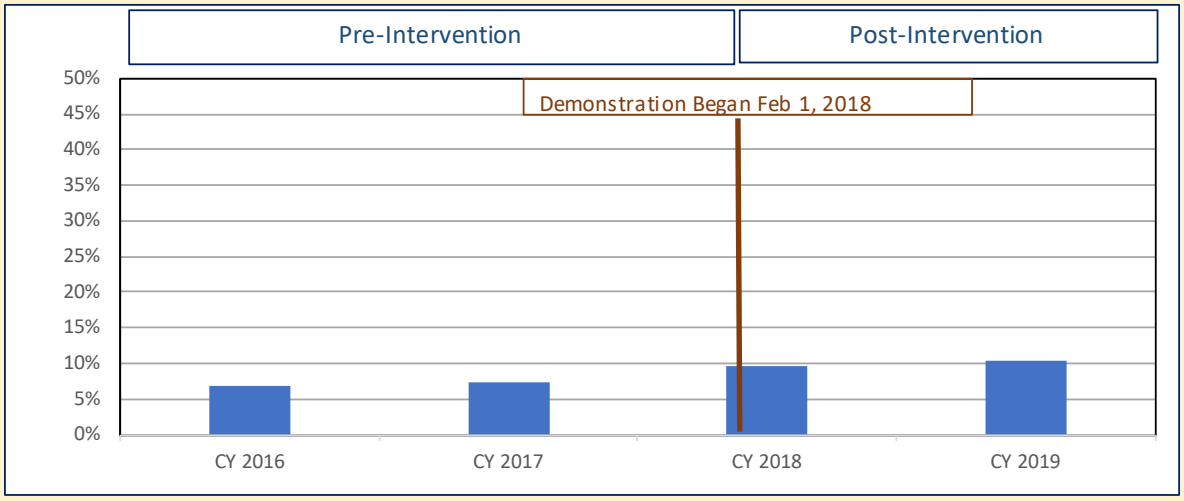
Does the level and trend of follow-up after discharge from the Emergency Department for Alcohol or Other Drug Dependence increase among the SUD population in the demonstration period?

Measure(s) Used to Answer Question:

Follow-up After ED Visit for Alcohol or Other Drug Dependence, 7 days

Measure Steward: NCQA, National Quality Forum #3488 [CMS Monitoring Metric #17(1)]

Results for the Demonstration Population



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	7.1%	**Probability:**	<.0001
CY2018-2019 average	10.0%	**Finding:**	Significant
Change	40.8%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	41.4%	9.7%	Northwest Region	83.2%	12.9%
OUD	74.9%	16.8%	North Central Region	99.8%	6.5%
Dual Eligible	17.8%	7.1%	Northeast Region	42.6%	7.1%
Pregnant Women	27.4%	8.0%	West Central Region	14.9%	13.8%
Criminally Involved			Central Region	31.7%	8.8%
MRO	7.2%	15.5%	East Central Region	18.4%	7.9%
			Southwest Region	49.1%	12.8%
			Southeast Region	43.9%	10.6%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of follow-up within 7 days after an ED visit for alcohol or drug dependence among the SUD beneficiaries increased 40.8% during the demonstration, from a pre-demonstration average of 7.1% to a demonstration average of 10.0%. There was improvement seen among all subpopulations and regions examined. However, the highest rate of follow-up was found to be 16.8% for the OUD subpopulation and 15.5% for the MRO subpopulation. All other cohort populations had a rate below 15%.

Exhibit 66

Results from CMS Metric #17c: Follow-up After ED Visit for Mental Illness, 7 days

Research Question:

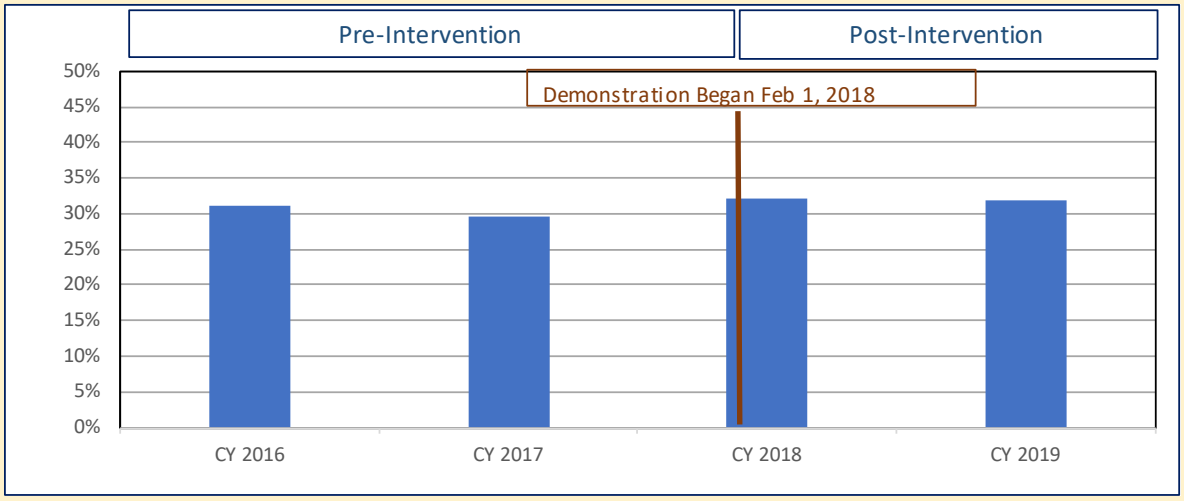
Does the level and trend of follow-up after discharge from the Emergency Department for Mental Illness increase among the SUD population in the demonstration period?

Measure(s) Used to Answer Question:

Follow-up After ED Visit for Mental Illness, 7 days

Measure Steward: NCQA, National Quality Forum #0576 [CMS Monitoring Metric #17(2)]

Results for the Demonstration Population



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	30.4%	**Probability:**	0.0965
CY2018-2019 average	31.9%	**Finding:**	Significant
Change	4.9%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	0.8%	25.6%	Northwest Region	25.2%	29.4%
OUD	24.8%	26.0%	North Central Region	-28.5%	15.3%
Dual Eligible	1.9%	35.4%	Northeast Region	-6.6%	25.8%
Pregnant Women	24.0%	29.9%	West Central Region	4.6%	30.8%
Criminally Involved			Central Region	8.4%	38.3%
MRO	0.3%	53.0%	East Central Region	-2.8%	38.4%
			Southwest Region	9.7%	31.3%
			Southeast Region	-4.1%	26.3%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of follow-up within 7 days after an ED visit for mental illness among the SUD beneficiaries increased 4.9% during the demonstration, from a pre-demonstration average of 30.4% to a demonstration average of 31.9%. Results among subpopulations and regions were mixed. Although the percent change was a modest increase during the demonstration, the highest rate for follow-up is among the MRO subpopulation followed by dual eligibles. There is also a wide range of rates at the regional level.

Exhibit 67

Results from HMA-Burns Metric:

Rate of Transition to ASAM Level 1 and 2 Services After receiving ASAM Level 3 or 4 Service

Research Question:

Does the rate for SUD clients who use ASAM level 1 and 2 services after discharge from an ASAM level 3 or 4 service increase compared to the rate prior to receiving the ASAM level 3 or 4 service?

Measure(s) Used to Answer Question:

Rate of Transition to ASAM Level 1 and 2 Services After receiving ASAM Level 3 or 4 Service

Measure Steward: HMA-Burns **Data Source:** State claims/encounters and enrollment data

Results Percentages in each column indicate the percentage of total clients who received the service

	Anchor Service July - Dec 2018 n = 2,708 clients		Anchor Service Jan - June 2020 n = 4,274 clients	
	Pre-Admission	Discharge	Pre-Admission	Discharge
Inpatient Hospital Stay, Primary Diagnosis SUD	28%	5%	16%	7%
Emergency Dept Visit	46%	22%	34%	23%
Community-based Services				
Withdrawal Management	25%	1%	23%	10%
Intensive Outpatient or Partial Hospitalization	12%	12%	4%	10%
Medication Assisted Treatment	28%	32%	29%	44%
Other Community-based Services	93%	98%	82%	93%
Pharmacy Scripts	68%	64%	46%	53%

Indicates a positive trend in utilization after discharge from inpatient hospital or residential treatment SUD stay

Desired Trend: Increase in use of lower level ASAM services and decrease in use of higher level ASAM services in the post-discharge period

Finding: Increase for most services post-discharge from higher ASAM level of car

Statistical Review: No statistical tests were run on this measure

HMA-Burns conducted two studies to determine how Indiana Medicaid beneficiaries with SUD step down to community-based treatment services after they had an anchor event. The anchor event is defined as an inpatient hospital stay for SUD (ASAM Level 4) or a residential treatment stay for SUD (ASAM Level 3). Two time periods were examined. The first time period was anchor events during

The services shown above were examined for each beneficiary for the 12-week period prior to admission to their anchor event (the pre-admission period) and for the 12-week period after their discharge from the anchor event (the post-discharge period).

Beneficiaries with an anchor event had a significant reduction in hospital ED visits during the post-discharge period in both studies. MAT services also increased, but more in the 2020 study than in the 2018 study. Inpatient hospital stays for SUD and withdrawal management decreased in both studies, a positive sign for less relapse. Intensive outpatient or partial hospitalization services were low in both studies for both the pre-admission and post-discharge periods. There was lower use for pharmacy (other than MAT) in the 2020 study group than in the 2018 study group.

State SUD Implementation Plan

One activity was included in the protocol related to expanding MCE case management services for individuals transitioning from residential treatment facilities and it has been completed.

Exhibit 68
Tracking Completion of Action Items in the FSSA Approved SUD Implementation Plan for CMS Milestone 6

	Action	Intended Completion Date	Was Action Completed?	Notes
31	Extend MCE case management to individuals transitioning from residential treatment facilities	No specific date	Yes, 02/24/2018	

Stakeholder Feedback

There was mixed feedback from providers on their interactions with the FSSA's managed care entities on client care coordination. Both the MCEs and beneficiaries expressed concerns about the availability of services to enable the transition to step-down to a lower level of care to continue recovery.

Exhibit 69
Stakeholder Feedback Related to CMS Milestone 6

	Topic	From Whom	Type of Feedback	Feedback
1	Care coordination activities with MCEs	Providers	Neutral	Provider experiences were highly variable with the majority participating in the Summative Interviews indicating very limited or no interaction on care coordination. The majority providing feedback through the online survey, however, indicated they do interact with the MCEs on care coordination. This is a change from the Mid-Point where providers were largely complimentary of MCE efforts. Several providers pointed out that they are already doing care coordination as part of the treatment plan developed for the member.
2	Housing options	MCEs	Critique	The lack of sober living or supportive housing options for members continues to be an ongoing concern and has been particularly challenging during the PHE. The MCEs felt that one possibility is that providers who lack the next level of care may struggle to find appropriate placement.
3	Services not available in some areas (real or perceived)	Beneficiaries	Critique	Many members expressed concerns that they have difficulties finding care to transition to after an inpatient hospital stay for a residential treatment center admission that is close to or within their county of residence. Many stated that they traveled long distances to come to get care.
4	Duration of care	Beneficiaries	Critique	Members who received either inpatient or residential treatment stated concerns that the length of stay was not long enough. This is due to the fact that they have been using for many years, have had multiple relapses, and that they need sufficient time to develop the skillsets to go to the next treatment level to have a good chance of successful sobriety.

Other SUD-Related Metrics in the Evaluation Design Plan

Sixteen additional measures were examined as part of the evaluation design plan. In Exhibit 70 below, it shows that the desired outcome was met in five measures. A statistical significance test was conducted on nine of the measures. Among the measures where there was a desired outcome, one was found to be statistically significant. Refer to the pages that follow for more information on each measure.

Exhibit 70
Summary of Findings for Other Metrics Not Mapped to a CMS Milestone and the Total Demonstration Population
Tests for statistical significance were conducted at a significance level of alpha = 0.10

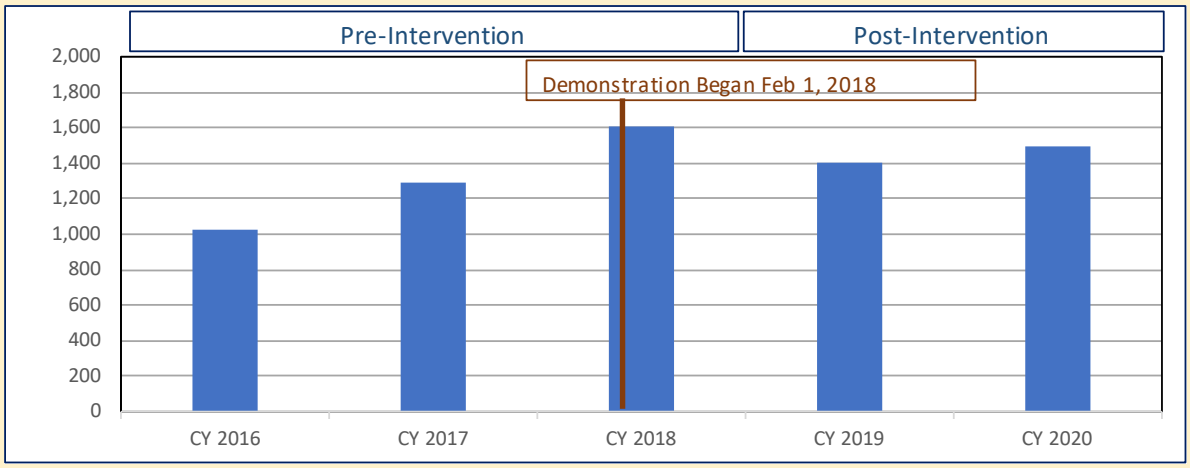
	Measure Examined	Desired Outcome	Outcome Met?	Statistical Test	Statistically Significant?	P-Value
1	Rate of overdose deaths per 1,000 adult Medicaid beneficiaries	Decrease	No	T-test	No	
2	Rate of per capita expenditures for SUD services among the SUD population	Increase	Yes	Interrupted Time Series	No	
3	Rate of per capita expenditures for SUD services in IMDs among the SUD population	Decrease	No	Interrupted Time Series	No	
4	Proportion of per capita expenditures for SUD services across ASAM levels of care	More spread across levels	Yes	no test run	N/A	
5	Rate of per capita expenditures for all services among the SUD population	Decrease	No	Interrupted Time Series	Yes	
6	Rate of per capita expenditures for all services except SUD services among the SUD pop.	Decrease	No	Interrupted Time Series	Yes	
7	Proportion of per capita expenditures for non-SUD services	More spend in community	No	no test run	N/A	
8	Rate of inpatient stays for SUD per 1,000 Medicaid beneficiaries	Decrease	No	Interrupted Time Series	No	
9	Rate of inpatient hospital readmissions among beneficiaries with SUD	Decrease	No change	Chi-square	No	
10	Rate of emergency department visits for SUD per 1,000 Medicaid beneficiaries	Decrease	Yes	Interrupted Time Series	Yes	0.0028
11	Rate of potentially preventable ED visits among beneficiaries with SUD	Decrease	No	no test run	N/A	
12	Rate of access to preventive health services for adult Medicaid beneficiaries with SUD	Increase	No change	Chi-square	No	
13	Grievances and Appeals related to SUD treatment services	Decrease	No change	no test run	N/A	
14	Prescribers Accessing Indiana's INSPECT	Increase	Yes	no test run	N/A	
15	Patient Requests Made Into Indiana's INSPECT	Increase	Mixed	no test run	N/A	
16	Hospitals that have Integrated with Indiana's INSPECT	Increase	Yes	no test run	N/A	

Exhibit 71
Results from CMS Metric #26: Overdose Deaths
Results from CMS Metric #27: Overdose Death Rate

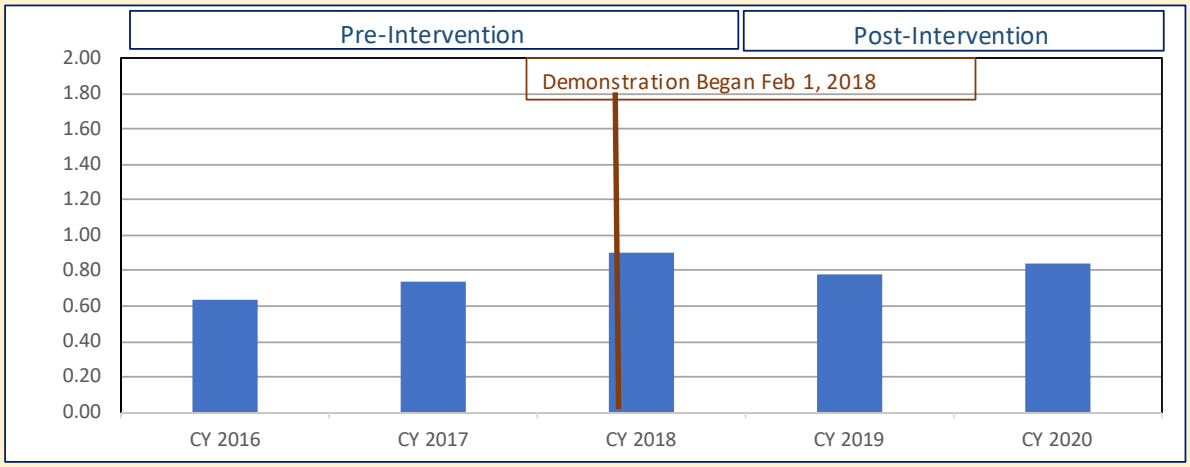
Research Question:
Does the total number and rate of overdose deaths decrease among Indiana Medicaid beneficiaries in the demonstration period?

Measure(s) Used to Answer Question:
Overdose deaths (count), Overdose deaths (rate)
Measure Steward: CMS [CMS Monitoring Metrics #26 (count) and #27 (rate)]

Results for the Demonstration Population ***Count of Overdose Deaths***



Results for the Demonstration Population ***Rate of Overdose Deaths per 1,000 Beneficiaries***



Desired Trend:	Decrease	**Statistical Review:**	T-test
CY2016-2017 average	0.686	**Probability > [t]:**	0.8671
CY2018-2019 average	0.840	**Finding:**	Not Significant
Change	22.4%		

The number and rate of overdose deaths among Indiana Medicaid beneficiaries actually increased during the demonstration. Both the number and rate did stabilize between CY 2019 and CY 2020 when compared to the start of the demonstration in CY 2018. The rate was at its peak in CY 2018 at 0.90 beneficiaries per 1,000.

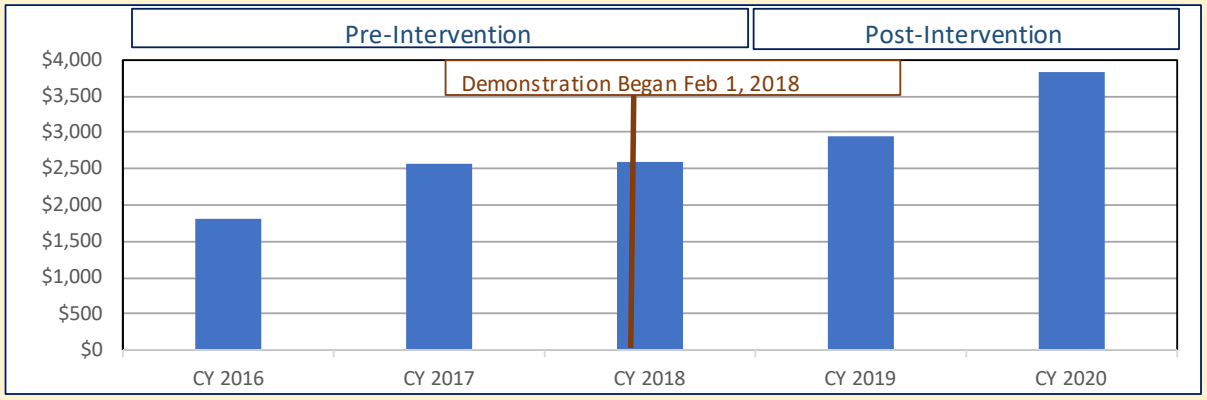
Exhibit 72

Results from HMA-Burns Metric: Per Capita SUD Spending

Research Question:
Does the rate in per capita expenditures for SUD services among the SUD population increase during the demonstration period?

Measure(s) Used to Answer Question: Per Capita SUD Spending
Measure Steward: HMA-Burns (used CMS Metric #30 with modifications)
Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	2.2599	0.146	No
Pre-intervention trend	0.3343	0.8214	No
Post-intervention trend	2.5942	<.0001	Yes

Per Capita SUD Expenditures for Other Populations When Compared to the Demonstration Population

	CY 2018	CY 2019		CY 2018	CY 2019
Demonstration	**$2,598**	**$2,951**			
Model	$2,493	$2,834	Northwest Region	$2,661	$3,345
OUD	$3,793	$4,210	North Central Region	$2,127	$2,456
Dual Eligible	$2,840	$3,049	Northeast Region	$2,848	$3,076
Pregnant Women	$2,107	$2,596	West Central Region	$1,996	$2,369
Criminally Involved	$1,871	$2,382	Central Region	$3,150	$3,451
MRO	$3,611	$4,157	East Central Region	$2,810	$3,312
			Southwest Region	$2,904	$3,173
			Southeast Region	$3,196	$3,357

The interrupted time series test was run on the demonstration population using monthly values from January 2016 to February 2020. HMA-Burns defined SUD services as those expenditures captured in CMS Metrics #7 - #12 instead of using the specification for CMS Metric #28. When comparing the expenditures between the sum of Metrics #7 - #12 against Metric #28, the per capita expenditures in Metric #28 were 41% - 43% higher each year due to the inclusion of ED visits in the specification.

Per capita expenditures for SUD services increased during the demonstration compared to the pre-demonstration period. These expenditures increased each year of the demonstration, from $2,598 in CY 2018 to $2,951 in CY 2019 to $3,844 in CY 2020. Each region and subpopulation saw a per capita increase of at least 5% from CY 2018 to CY 2019.

Exhibit 73

Results from CMS Metric #31: Per Capita SUD Spending within IMDs

Research Question:

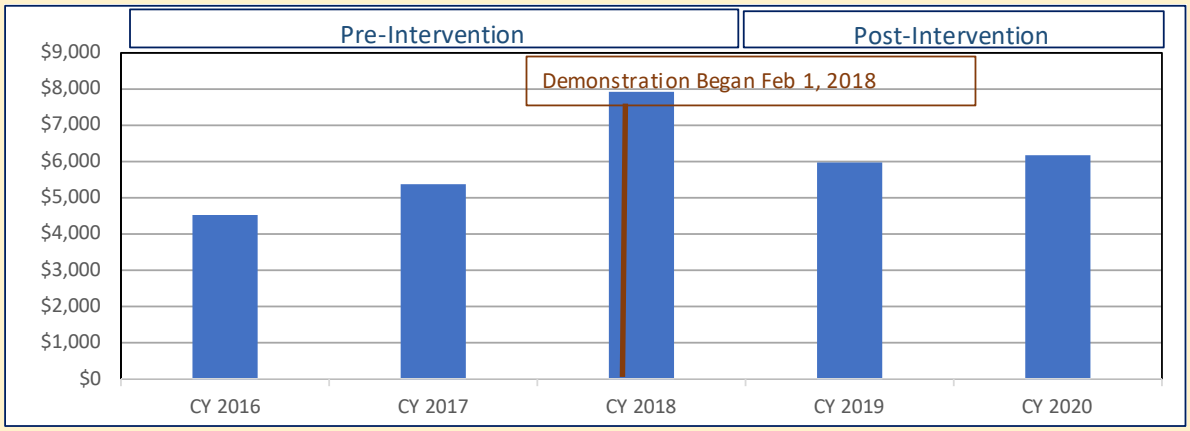
Does the rate in per capita expenditures for SUD services in IMDs among the SUD population decrease during the demonstration period?

Measure(s) Used to Answer Question: Per Capita SUD Spending within IMDs

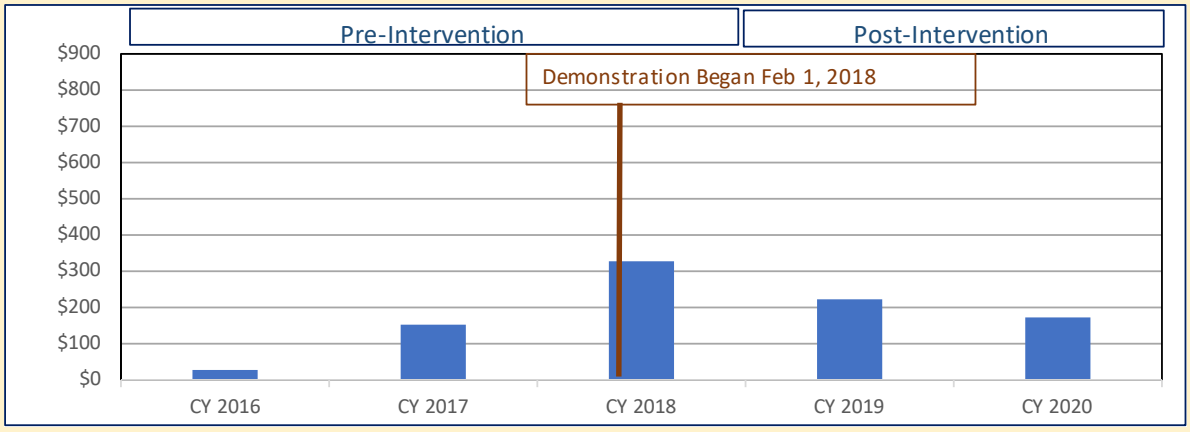
Measure Steward: CMS [CMS Monitoring Metric #31]

Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population CMS denominator: Number of individuals with IMD stay



Results for the Demonstration Population HMA-Burns denominator: Total individuals with SUD Dx



Desired Trend: Decrease **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	-50.9322	0.2443	No
Pre-intervention trend	59.3947	0.0579	Yes
Post-intervention trend	8.4624	0.7817	No

The interrupted time series test was run using the CMS-defined denominator and monthly values from January 2016 to February 2020. The average per capita payment for the 25 months pre-demonstration was compared to the average for the 25 months post-demonstrationg among IMD users. Whether viewed using the CMS denominator (IMD users) or the HMA-Burns denominator (total individuals with SUD), the per capita payment peaked at the start of the demonstration but has declined with the introduction of more residential treatment providers.

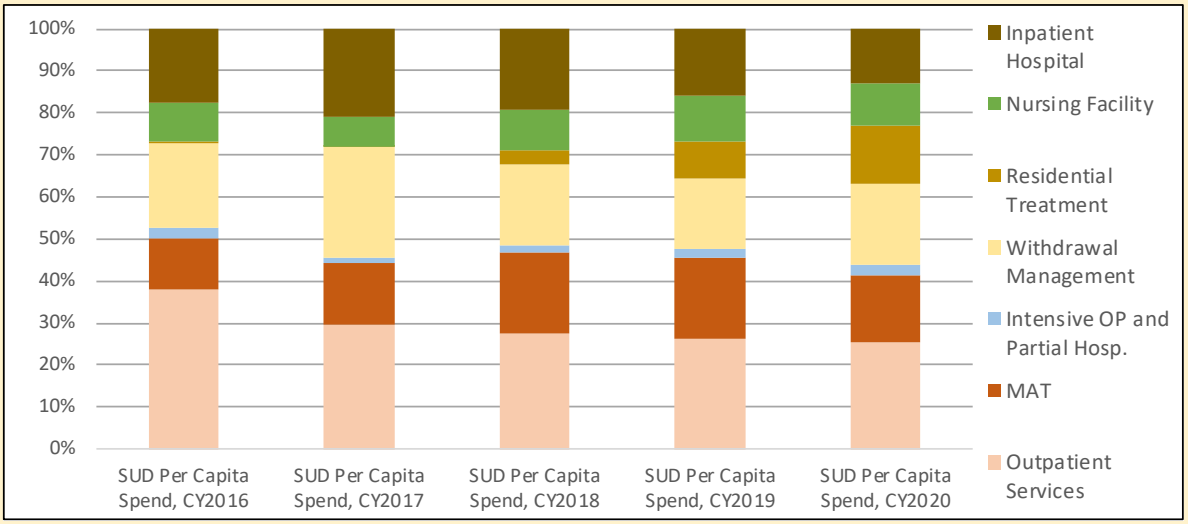
Exhibit 74

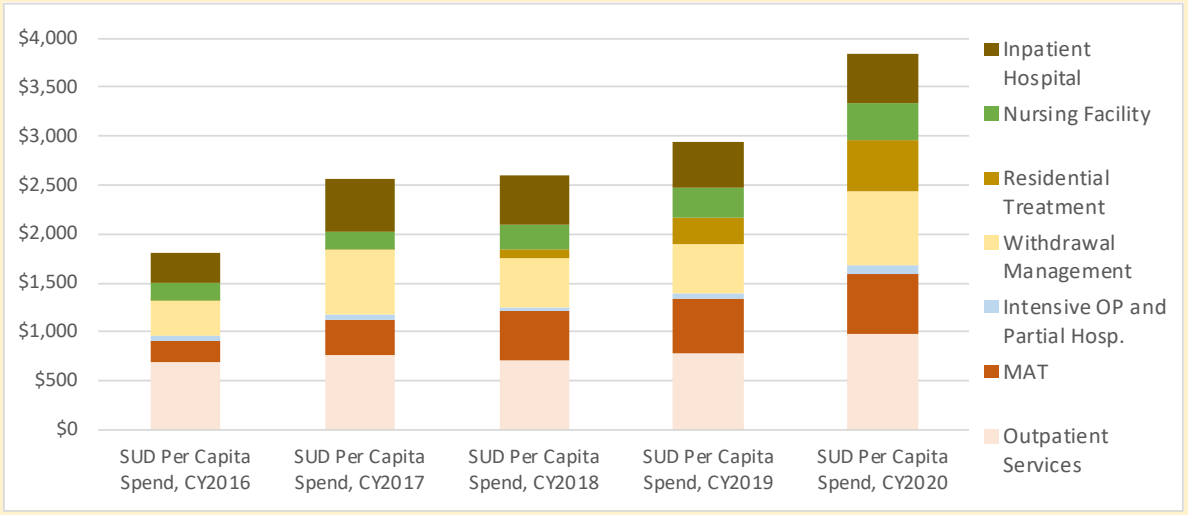
Results from HMA-Burns Metric: Distribution of Per Capita SUD Spending

Research Question:
Does the proportion of per capita expenditures for SUD services distribute more evenly across ASAM levels during the demonstration period?

Measure(s) Used to Answer Question: Distribution of Per Capita SUD Spending
Measure Steward: HMA-Burns
Data Source: State claims/encounters and enrollment data

Results





Desired Trend: More even spread in per capita SUD spending across ASAM levels
Statistical Review: No statistical tests were run on this measure

Per capita spending on SUD services for individuals with SUD increased from $1,814 in CY2016 to $3,843 in CY2020. The per capita expenditures for inpatient hospital remained steady during the demonstration, but the introduction of residential treatment services has moved more expenditures to community-based services. Additionally, the per capita expenditures for outpatient services, medication assisted treatment, and withdrawal management all increased during the demonstration. Per capita spending on intensive outpatient and partial hospitalization services remains very low.

Exhibit 75

Results from HMA-Burns Metric: Per Capita Total Spending for Beneficiaries with SUD

Research Question:

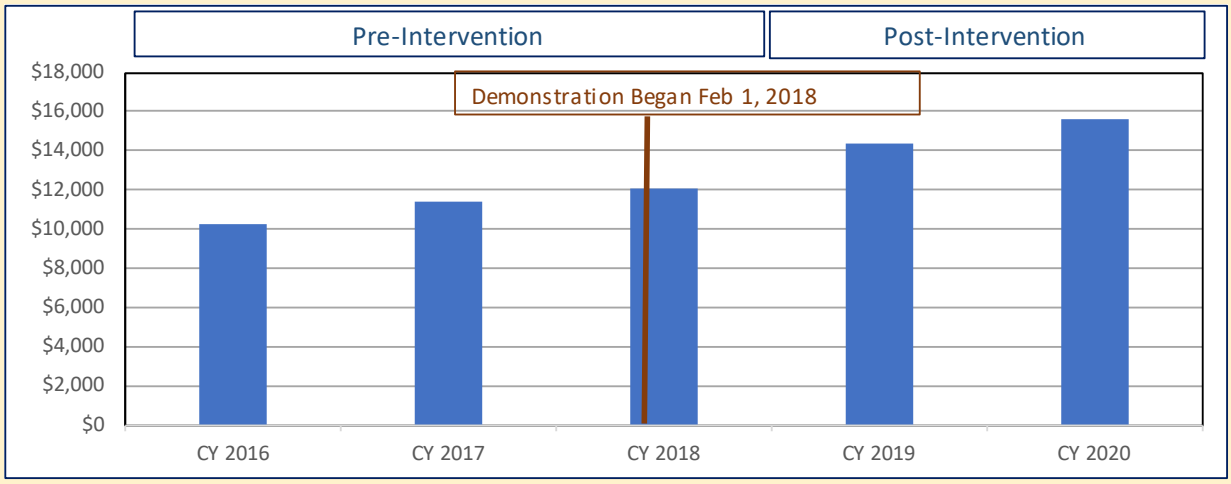
Does the rate in per capita expenditures for all services among the SUD population decrease during the demonstration period?

Measure(s) Used to Answer Question: Per Capita Total Spending for Beneficiaries with SUD

Measure Steward: HMA-Burns

Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	29.5683	<.0001	Yes
Pre-intervention trend	-16.6434	0.0091	Yes
Post-intervention trend	12.9249	<.0001	Yes

The interrupted time series test was run on the demonstration population using monthly values from January 2016 to February 2020. HMA-Burns used the beneficiaries defined in CMS Metric #4 to define beneficiaries with SUD. Then, the payments for all of their utilization was summed to compute a per capita total service expenditure per month for the ITS study period.

Total per capita expenditures for individuals with SUD increased during the demonstration compared to the pre-demonstration period. These expenditures increased each year of the demonstration, from $12,071 in CY 2018 to $14,414 in CY 2019 (a 19.4% annual increase) to $15,611 in CY 2020 (a 8.3% annual increase).

Exhibit 76

Results from HMA-Burns Metric: Per Capita Total Spending minus SUD Spending for Beneficiaries with SUD

Research Question:

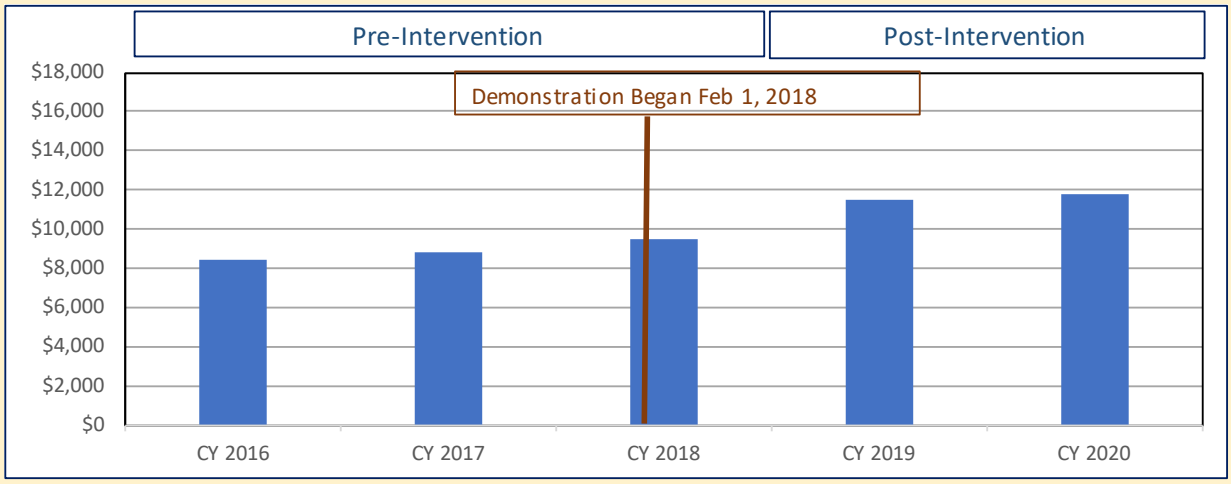
Does the rate in per capita expenditures for total services except SUD services among the SUD population decrease during the demonstration period?

Measure(s) Used to Answer Question: Per Capita Total Spending minus SUD Spending for Beneficiaries with SUD

Measure Steward: HMA-Burns

Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend: Increase **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	27.3087	<.0001	Yes
Pre-intervention trend	-16.9779	0.0014	Yes
Post-intervention trend	10.3308	<.0001	Yes

The interrupted time series test was run on the demonstration population using monthly values from January 2016 to February 2020. HMA-Burns used the beneficiaries defined in CMS Metric #4 to define beneficiaries with SUD. Then, the payments for all of their utilization was summed to compute a per capita total service expenditure per month for the ITS study period. HMA-Burns used its definition of SUD expenditures shown in Exhibit 72 and subtracted this from the total per capita expenditures to derive a per capital expenditure value excluding SUD services.

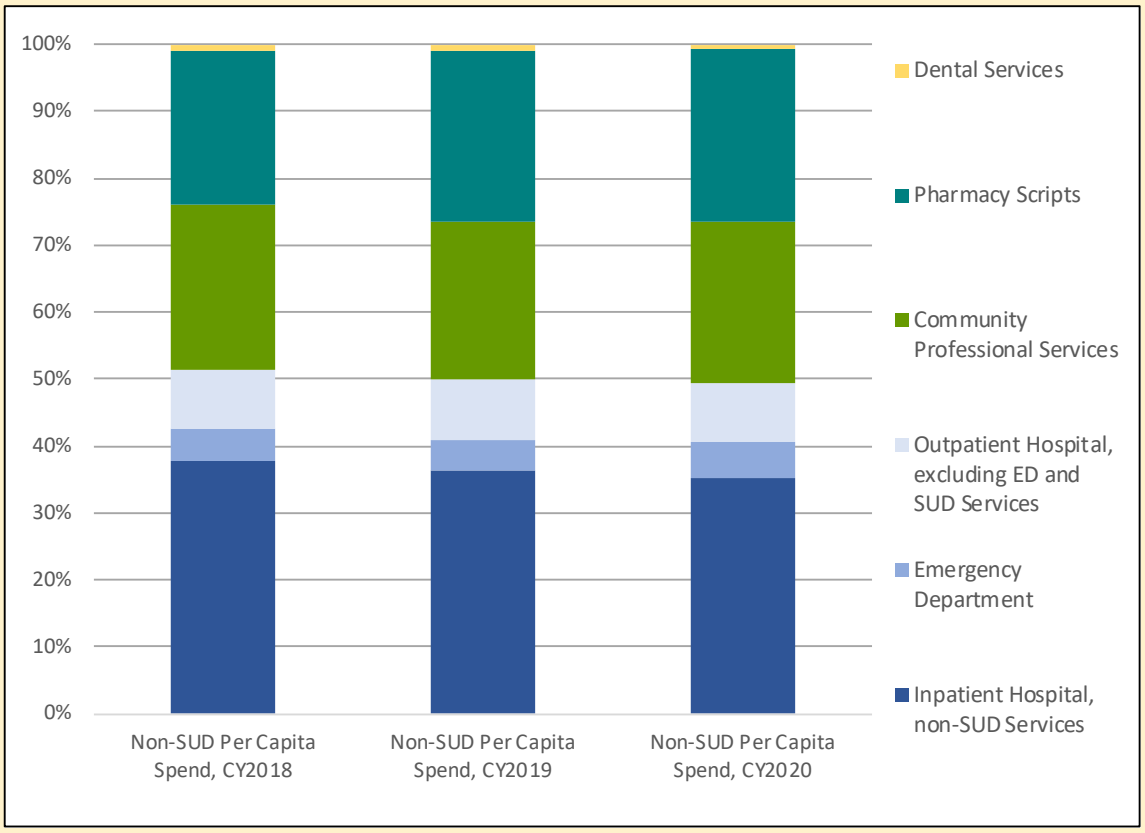
Total per capita expenditures excluding SUD services for individuals with SUD increased during the demonstration compared to the pre-demonstration period. These expenditures increased each year of the demonstration, from $9,473 in CY 2018 to $11,462 in CY 2019 (a 21.0% annual increase) to $11,767 in CY 2020 (a 2.7% annual increase).

Exhibit 77
Results from HMA-Burns Metric:
Distribution of Per Capita Non-SUD Spending for Beneficiaries with SUD

Research Question:
Does the proportion of per capita expenditures for non-SUD services among the SUD population move more toward community-based services during the demonstration period?

Measure(s) Used to Answer Question: Distribution of Per Capita Non-SUD Spending
Measure Steward: HMA-Burns
Data Source: State claims/encounters and enrollment data

Results



Desired Trend: Migration of per capita expenditures to community-based services
Finding: No change
Statistical Review: No statistical tests were run on this measure

The proportion of expenditures for non-SUD services between institutional and community settings remained steady during the demonstration period for beneficiaries with SUD. Of the total non-SUD expenditures incurred by these members, 43% was for inpatient hospital or ED visits in CY 2018. This was reduced to 41% of the total during CY 2019 and CY 2020. Other categories also held steady over the three-year period. Outpatient hospital services excluding ED visits represented 9% of total non-SUD expenditures. Community-based professional services were 24% of the total, pharmacy was 23-26% of the total, and dental services represented just 1% of total non-SUD expenditures.

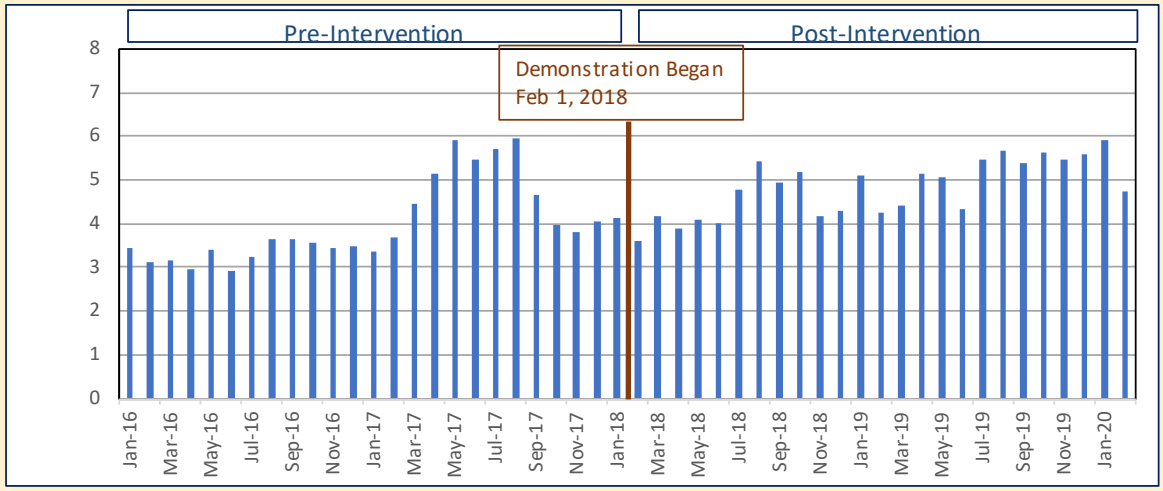
Exhibit 78

Results from CMS Metric #24: Inpatient Stays Per 1,000 Medicaid Beneficiaries

Research Question:
Does the rate of inpatient stays for SUD per 1,000 Medicaid beneficiaries decrease during the demonstration period?

Measure(s) Used to Answer Question: Inpatient Stays Per 1,000 Medicaid Beneficiaries
Measure Steward: CMS [CMS Monitoring Metric #24]
Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend: Decrease **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	-0.0178	0.4669	No
Pre-intervention trend	0.0815	<.0001	Yes
Post-intervention trend	0.0637	0.0002	Yes

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration
Result for Demonstration: increase of 20.4%
Results for Subpopulations within the Demonstration:

Model	-34.1%	Northwest Region	28.9%
OUD	-47.3%	North Central Region	31.6%
Dual Eligible	135.9%	Northeast Region	10.0%
Pregnant Women	-5.3%	West Central Region	17.0%
Criminally Involved	-9.0%	Central Region	11.7%
MRO	-28.6%	East Central Region	27.4%
		Southwest Region	40.2%
		Southeast Region	14.1%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration
Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		

Average inpatient stays for SUD per 1,000 beneficiaries increased from 4.0 stays in the pre-demonstration period to 4.8 stays during the demonstration, an increase of 20.4%. There was a substantial decrease for members enrolled in managed care (Model population), from 3.7 stays down to 2.5 stays per 1,000.

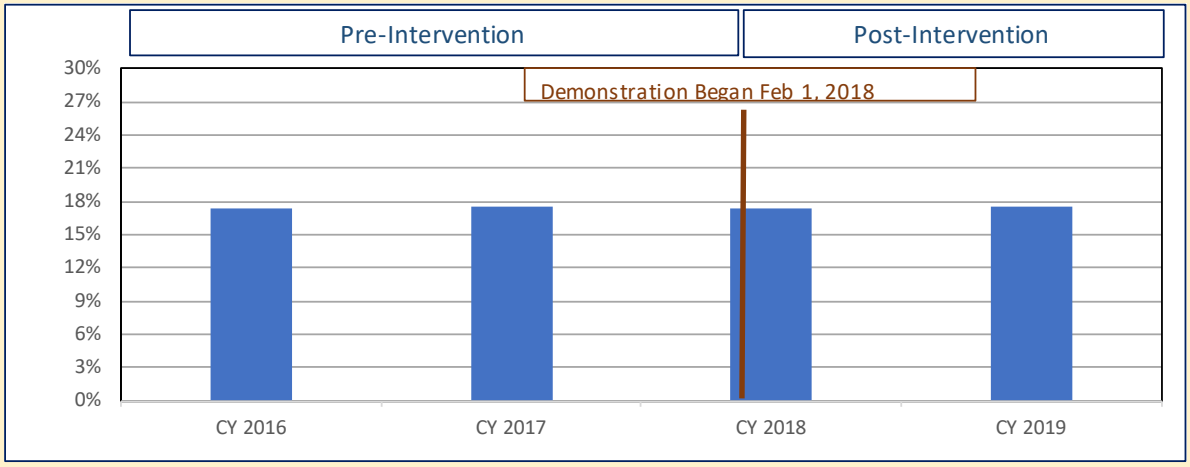
Exhibit 79

Results from CMS Metric #25: Readmissions Among Beneficiaries with SUD

Research Question:
Does the rate of inpatient hospital readmissions among beneficiaries with SUD decrease during the demonstration period?

Measure(s) Used to Answer Question: Readmissions Among Beneficiaries with SUD
Measure Steward: CMS [CMS Monitoring Metric #25]
Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend:	Decrease	**Statistical Review:**	Chi-Square
CY2016-2017 average	17.5%	**Probability:**	0.8894
CY2018-2019 average	17.5%	**Finding:**	Not Significant
Change	0.0%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	-0.2%	17.5%	Northwest Region	-4.5%	17.4%
OUD	0.0%	18.9%	North Central Region	-5.6%	15.5%
Dual Eligible	8.6%	15.7%	Northeast Region	12.1%	22.6%
Pregnant Women	-8.8%	9.6%	West Central Region	6.9%	18.3%
Criminally Involved	18.1%	16.3%	Central Region	0.4%	18.4%
MRO	-2.2%	18.9%	East Central Region	2.5%	16.5%
			Southwest Region	9.5%	17.9%
			Southeast Region	7.7%	17.8%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration
Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

Point change more than 5 points below	Point change is 2 to 5 points above
Point change is 2 to 5 points below	Point change is more than 5 points above
Point change is 2 points below to 2 above	

The rate of hospital readmissions among beneficiaries with SUD remained unchanged between the pre-demonstration and demonstration period at an average rate of 17.5%. During the demonstration, there was also no change for the OUD subpopulation with an absolute rate of 18.9%. At the region level, six regions have a readmission rate within one percentage point of the statewide average. The exceptions are the North Central Region being lower (15.5%) and the Northeast Region being higher (22.6%).

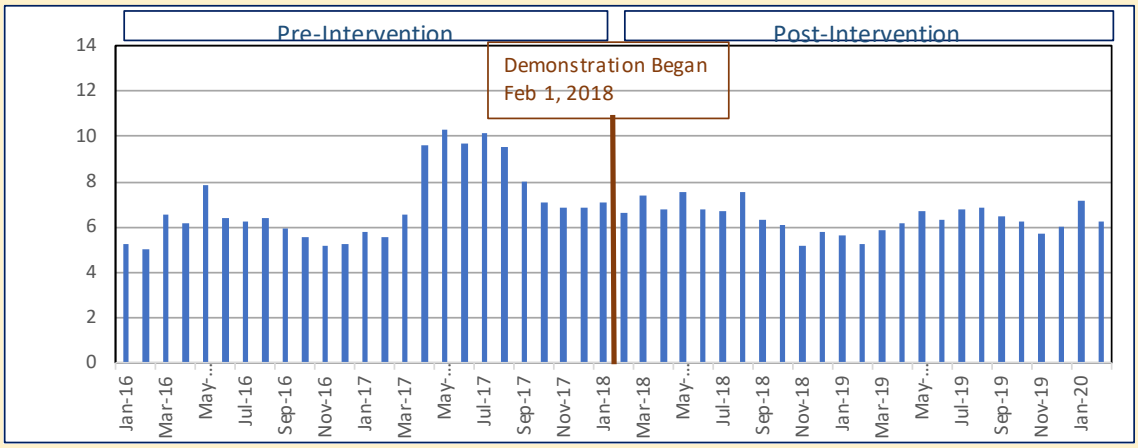
Exhibit 80

Results from CMS Metric #23: ED Visits for SUD Per 1,000 Medicaid Beneficiaries

Research Question:
Does the rate of emergency department visits for SUD per 1,000 Medicaid beneficiaries decrease during the demonstration period?

Measure(s) Used to Answer Question: ED Visits for SUD Per 1,000 Medicaid Beneficiaries
Measure Steward: CMS [CMS Monitoring Metric #23]
Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend: Decrease **Statistical Review:** Interrupted Time Series

	Estimate	P-Value	Significant
Post-intervention trend compared to pre-intervention trend	-0.1384	0.0028	Yes
Pre-intervention trend	0.1145	0.0006	Yes
Post-intervention trend	-0.0238	0.4416	No

Trend Analyzed: 25-mo avg pre-Demonstration against 25-mo avg during Demonstration
Result for Demonstration: decrease of 8.4%
Results for Subpopulations within the Demonstration:

Model	-18.1%	Northwest Region	-16.0%
OUD	-45.5%	North Central Region	-20.1%
Dual Eligible	-6.9%	Northeast Region	-8.8%
Pregnant Women	22.6%	West Central Region	-2.2%
Criminally Involved	low sample	Central Region	-6.5%
MRO	-19.7%	East Central Region	-4.5%
		Southwest Region	-10.7%
		Southeast Region	-4.8%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration
Color coding is inverted for this measure because the desired trend is a decrease, not an increase.

	Point change more than 5 points below		Point change is 2 to 5 points above
	Point change is 2 to 5 points below		Point change is more than 5 points above
	Point change is 2 points below to 2 above		

Average ED utilization for SUD in the demonstration period was 6.4 visits per 1,000 Medicaid beneficiaries compared to 7.0 visits per 1,000 during the pre-demonstration period, a decrease of 8.4%. Each cohort population also saw a decrease in ED utiization per 1,000 for SUD with the exception of pregnant women. However, pregnant women have the lowest ED use for SUD of any population studied (3.2 visits per 1,000 during the demonstration).

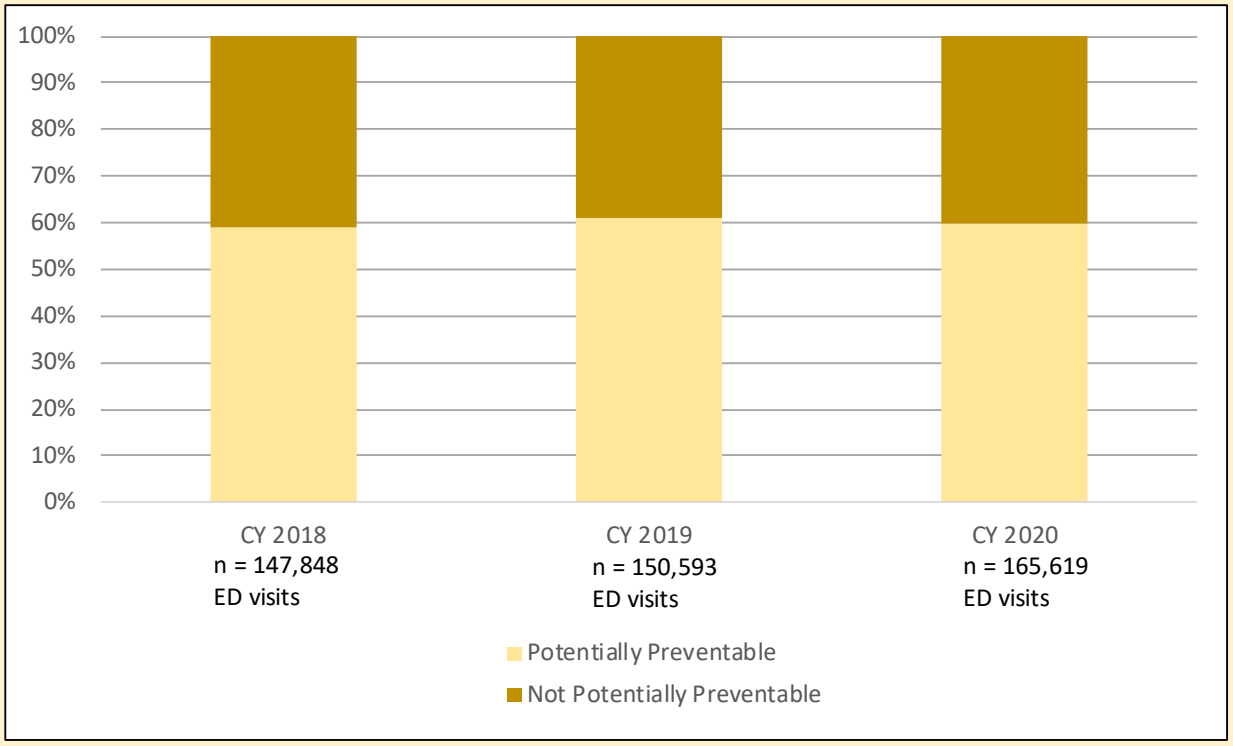
Exhibit 81

Results from HMA-Burns Metric: Potentially Preventable ED Visit Rate

Research Question:
Does the rate of potentially preventable emergency department visits among beneficiaries with SUD decrease during the demonstration period?

Measure(s) Used to Answer Question: Potentially Preventable ED Visit Rate
Measure Steward: HMA-Burns
Data Source: State claims/encounters and enrollment data with 3M's PPV Grouper

Results



Desired Trend: Decrease in the rate of potentially preventable ED visits
Finding: No material change
Statistical Review: No statistical tests were run on this measure

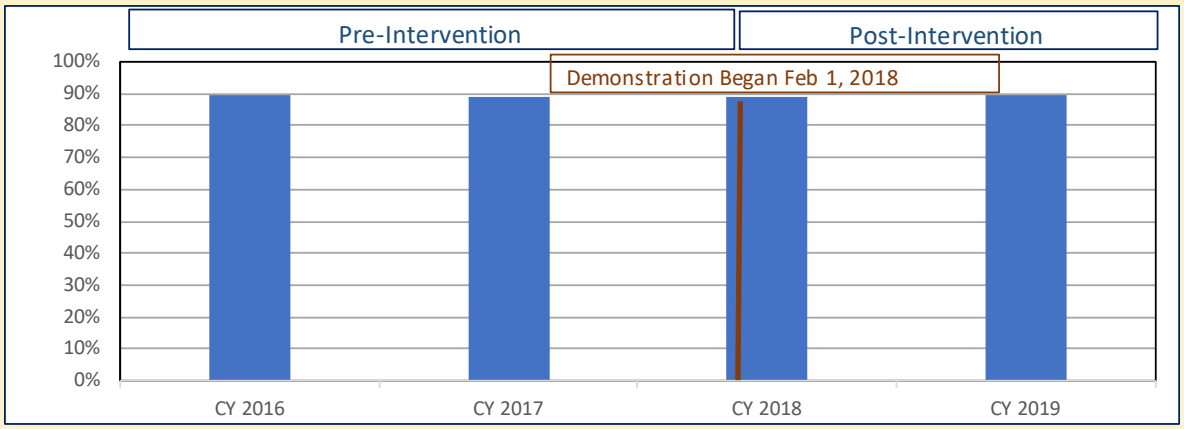
HMA-Burns identified all hospital emergency department visits (defined as institutional claims with the presence of one of the CPTs in the range 99281-99285) for Indiana Medicaid beneficiaries with SUD during CY 2018, CY 2019, and CY 2020. Using 3M's Potentially Preventable Visit software, HMA-Burns identified each ED visit as being potentially preventable (PPV) or not based on the results from the software.
The PPV rate remained steady for the SUD population over the demonstration period, with a range between 59.0% and 61.0% of all ED visits defined as PPVs.

Exhibit 82
Results from CMS Metric #32:
Access to Preventive/Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD

Research Question:
Does the rate of access to preventive/ambulatory health services for adult Medicaid beneficiaries with SUD increase during the demonstration period?

Measure(s) Used to Answer Question:
Access to Preventive/Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD
Measure Steward: CMS [CMS Monitoring Metric #32]
Data Source: State claims/encounters and enrollment data

Results for the Demonstration Population



Desired Trend:	Increase	**Statistical Review:**	Chi-Square
CY2016-2017 average	89.3%	**Probability:**	0.3114
CY2018-2019 average	89.4%	**Finding:**	Not Significant
Change	0.1%		

Change from Pre-Intervention to Post-Intervention for Other Populations

	Pct Change	2018-19 Avg		Pct Change	2018-19 Avg
Model	0.5%	88.3%	Northwest Region	0.1%	92.0%
OUD	0.5%	90.5%	North Central Region	-1.2%	89.3%
Dual Eligible	-1.1%	93.9%	Northeast Region	-2.0%	88.9%
Pregnant Women	2.0%	91.0%	West Central Region	-0.3%	92.4%
Criminally Involved	1.3%	74.6%	Central Region	-0.7%	87.4%
MRO	0.2%	93.7%	East Central Region	0.0%	88.1%
			Southwest Region	1.3%	91.1%
			Southeast Region	2.6%	90.0%

Legend indicates the percentage point change for a subpopulation compared to the overall Demonstration

	Point change more than 5 points above		Point change is 2 to 5 points below
	Point change is 2 to 5 points above		Point change is more than 5 points below
	Point change is 2 points above to 2 below		Sample is too small to report on (n < 50 obs)

The rate of access on this measure remained unchanged between the pre-demonstration and demonstration period at an average rate of 89.4%. There was also little percentage change observed among all of the subpopulations and regions analyzed. The absolute rate of access was higher in the demonstration for dual eligibles, pregnant women, and the MRO population than the statewide population. All regions have an absolute rate within three percentage points of the statewide average.

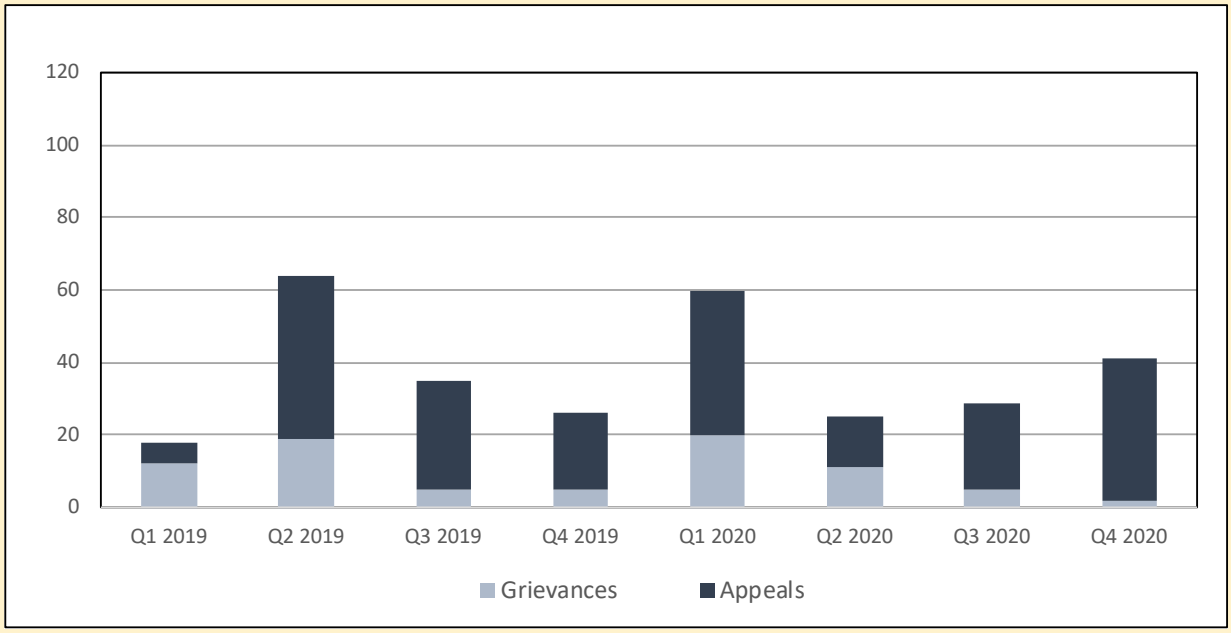
Exhibit 83

Results from CMS Metric #33 and #34: Number of SUD-Related Grievances and Appeals

Research Question:
Do the number of grievances and appeals related to SUD treatment services decrease during the demonstration period?

Measure(s) Used to Answer Question:	Number of SUD-Related Grievances and Appeals
Measure Steward:	CMS [Grievances is CMS Monitoring Metric #33, Appeals is CMS Metric #34]
Data Source:	Data reported by managed care entities to the FSSA quarterly

Results for Number of Grievances and Appeals



Desired Trend:	Decrease number of grievances and appeals
Finding:	No material change, but very low volume in pre- and post-demonstration period
Statistical Review:	No statistical tests were run on this measure

The FSSA started requiring its managed care entities (MCEs) to track grievances and appeals discretely for the SUD population starting in January 2020. The value shown above represent all four MCEs combined for each quarter. Although the number of grievances and appeals fluctuated by quarter, they are very low. On a per 1,000 basis for members with SUD, the rate has always been less than 1 per 1,000 members.

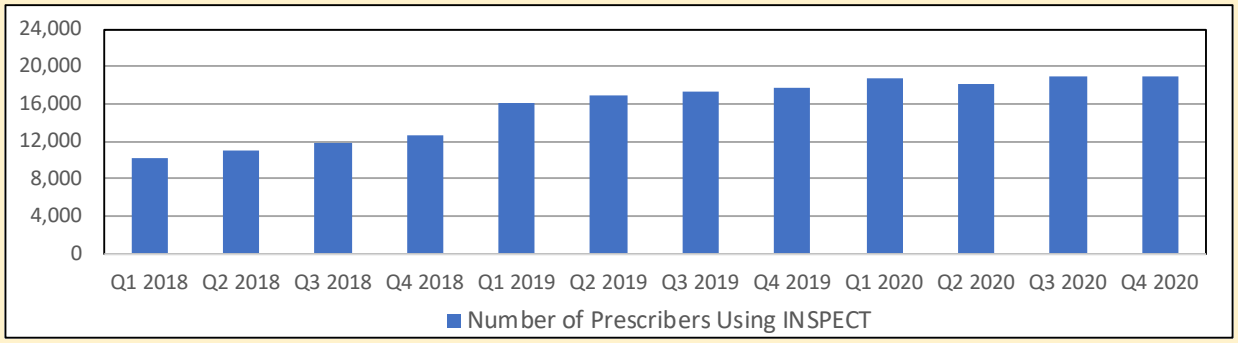
Exhibit 84
Results from FSSA Metrics:
Statistics on Use on Indiana's Prescription Drug Monitoring Program Database INSPECT

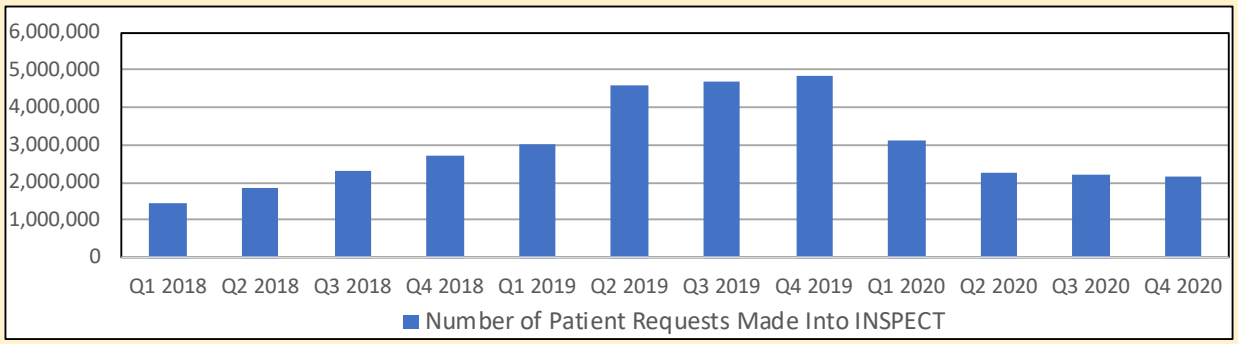
Research Questions:
Has the number of prescribers using INSPECT increased over time?
Has the volume of inquiries into the INSPECT database increased over time?

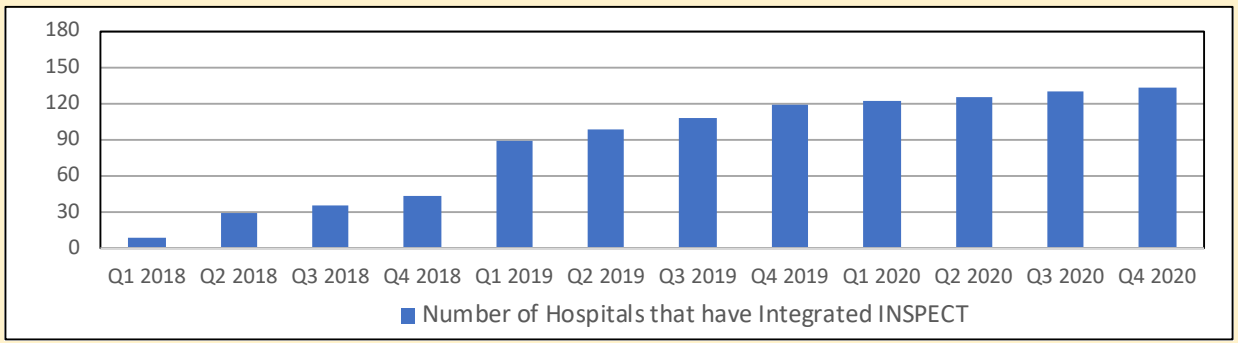
Measure(s) Used to Answer Question:
Number of prescribers accessing INSPECT
Number of patient requests made into INSPECT
Number of hospitals that have integrated INSPECT into their health care system's electronic health record
Data Source: Indiana Professional Licensing Agency's prescription drug monitoring database (named INSPECT)

Desired Trend:	Increase in number of prescribers using INSPECT	**Finding:**	Increased
Desired Trend:	Increase in number of requests made using INSPECT	**Finding:**	Mixed
Desired Trend:	Increase in number of hospitals integrating INSPECT	**Finding:**	Increased

Results







SECTION G: Conclusions

Assessment of the Effectiveness of the Demonstration

When considering the driver diagrams shown in the Evaluation Design Plan, Indiana did not meet the specific aims identified outright but did see positive impacts due to the demonstration:

- **Reduce the level and trend in overdose deaths in the SUD population**. Overdose deaths among Medicaid beneficiaries did increase during the demonstration period from the pre-demonstration period. There were 1,022 deaths in CY 2016, 1,290 in CY 2017, 1,610 in CY 2018, 1,403 in CY 2019, and 1,494 in CY 2020. The highest level was seen in the first year of the demonstration, then dropped in years two and three.
- **Reduce the cost of the SUD population in the demonstration period**. Total cost per capita for SUD beneficiaries increased during the demonstration, but per capita spending for SUD services more than doubled in a five-year period, from $1,814 in CY 2016 (pre-demonstration) to $3,843 in CY 2020 (end of demonstration). Even during the demonstration years of CY 2018 to CY 2020, per capita spending for SUD services increased 48 percent. Further, the per capita expenditures for institutional-based services as a proportion of total SUD expenditures remained steady; the increase in expenditures was seen in SUD community-based services.

The PHE likely had a confounding effect in enabling Indiana to fully meet these aims during the demonstration period. The shorter-than-typical demonstration period (three years instead of five years) also gave the FSSA less time to achieve these aims.

When considering the CMS Milestones, Indiana saw success in each milestone. Exhibit 85, which appears on the next page, summarizes the measures where Indiana achieved the desired outcome. Among 55 measures reviewed, there were 36 where the desired outcome was met. Of these, 20 measures had an outcome that was statistically significant.

The FSSA was also successful in large part in the activities it set out to do in its SUD Implementation Plan. Among the 31 activities identified, 24 were completed in full. The remainder are in progress with only one item being abandoned. There were implementation activities completed that were targeted for each of the CMS Milestones.

Some key success factors of the demonstration include the following:

1. Beneficiaries receiving any SUD service on a monthly basis grew 52 percent during demonstration.
2. The proportion of SUD providers in the state that accept Medicaid grew during the demonstration period.
3. There was continual expansion in the offering of residential treatment services over the demonstration period, both in licensed locations and licensed beds.
4. State-sponsored ASAM training proved helpful to new and existing Medicaid providers.
5. The introduction of a universal prior authorization form helped to align expectations on utilization management across providers and the FSSA's MCEs.
6. There is lower emergency department use after transitioning from ASAM level 4 or 3 care.

Exhibit 85
Summary of Metrics and Implementation Activities by CMS Milestone

	TOTAL	Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5	Milestone 6	Other
	All Measures Combined	Access to Critical Levels of Care for SUD Treatment	Use of Evidence-Based, SUD-specific Patient Placement Criteria	Use of Nationally Recognized SUD-specific Program Standards for Residential Treatment	Sufficient Provider Capacity at Critical Levels of Care	Implementa-tion of Comprehensive Treatment and Prevention Strategies to Address Opioid Abuse	Improved Care Coordination and Transitions Between Levels of Care	
Measures								
Number of Measures Examined	**55**	10	4	2	8	4	11	16
Number of Measures Where Desired Outcome Was Met	**36**	8	3	2	4	4	10	5
Number of Measures Where Desired Outcome Was Statistically Significant	**19**	5	1	none tested	none tested	3	9	1
Implementation Activities								
Number of Activities Identified in the State's SUD Implementation Plan	**31**	17	4	2	4	3	1	
Number of Activities Completed	**24**	12	4	1	4	2	1	
Number of Activities Abandoned	**1**	1	0	0	0	0	0	

Assessment of Opportunities for Improvement

Indiana saw significant progress towards its aim to expand SUD-specific services to its Medicaid population through this truncated demonstration period. With the expansion of coverage for new services across the ASAM continuum and a concentrated effort to increase access to services that had previously been covered, there remain opportunities for continued improvement as the FSSA enters its second SUD demonstration period that became effective January 1, 2021 and continues through December 31, 2025. The HMA-Burns evaluation team has identified the opportunities below for the FSSA to continue to build upon the strong foundation established in the initial demonstration period.

1. The FSSA is encouraged to build a stronger coordination effort on the implementation of policy changes with its managed care entities and providers to ensure consistent communication and execution of new policies with SUD providers. Although the FSSA holds the authority on final policy decisions, it may be helpful for the FSSA to meet with its MCE partners and providers prior to policy decisions being made final to give the opportunity for the MCEs and providers to identify options for consideration.
2. Stakeholders identified the need for enhanced service coverage in most regions of the state for the provision of services statewide for adolescents, particularly for residential treatment. The FSSA may consider issuing a request for proposals or other mechanism to communicate its desire to increase provider capacity for this population. One incentive for provider participation may be reimbursement through a payment arrangement that is an alternative to a fee-for-service model.
3. For adults, there appears to be a need for additional residential treatment services in the northern counties of the state at all ASAM levels. There has been little growth in licensed provider or bed capacity in this region of the state when compared to the central and southern regions. As in the previous recommendation, one option would be for the FSSA to build incentives within the existing residential provider network or providers new to Medicaid to enhance capacity for residential services in this region.
4. The FSSA should consider adding licensure for residential providers at the ASAM 3.7 level, particularly for 3.7- withdrawal management. This may disincentivize requests for placements in a hospital setting for withdrawal management, particularly for opioid addiction.
5. Feedback from providers, MCEs, and beneficiaries indicated that there is a greater need for ASAM 3.1 residential and supportive housing/sober living options. A supportive housing solution was one of the few items in the FSSA's SUD Implementation Plan that was not completed in the first demonstration period. The FSSA is encouraged to discuss options with its existing provider base to expand their service array into this modality as well as to build the capacity from new providers as well. It should be noted that FSSA has had ongoing discussions on this topic and is pursuing funding grant opportunities, but the need appears to be larger in scale than what is currently being contemplated.
6. The FSSA is encouraged to work with its MCEs on the approach to authorizing intensive outpatient and partial hospitalization services statewide. Providers who have the capacity to deliver these services communicated to the evaluators that they forego delivering this service due to what are perceived as tight requirements for authorization approvals.

7. Current state law limits the number of opioid treatment providers in the state. Absent a repeal of this law, the FSSA is encouraged to work with providers currently eligible to deliver MAT as per the legislation to expand this service particularly in rural portions of the state. Separately, the FSSA may consider ways to expand delivery of services of alternative MAT treatment.
8. The evaluators saw little utilization for the billing of early intervention services. The FSSA is encouraged to understand the root cause for this, whether it is because the service is not being delivered or it is being billed under another service definition. Guidance to providers on the provision and billing of early intervention services is suggested, including a potential webinar or in-service education conducted by MCE Provider Relations staff.
9. Stakeholders identified the need for the FSSA to expand peer supports in the community and to pay for this service appropriately. The evaluators recommend that the FSSA develop a comprehensive approach to peer supports, including which services are offered and when the services may be billed separately, and how the reimbursement can incentivize enhanced utilization of the service.
10. The FSSA is encouraged to consider a holistic policy for services delivered to Medicaid beneficiaries immediately after incarceration. This policy will factor in transitions of care as well as service authorization requirements.
11. The FSSA should consider a uniform method for providers to upload service authorization requests to the MCEs for inpatient hospital, residential treatment, intensive outpatient, and partial hospitalization services in an electronic format. The method would include required fields to ensure that relevant data is captured for completeness. It would also assist providers in the education process for what is required for SUD service authorization submissions and would streamline the submission requirements across the contracted MCEs.
12. The FSSA is encouraged to strengthen its oversight of the MCEs related to the provision of care coordination or case management among SUD beneficiaries. The evaluators observed few beneficiaries with SUD who were discharged from an inpatient hospital or residential treatment setting for SUD were enrolled in the MCE's case management program.
13. The FSSA is encouraged to strengthen its oversight of the MCEs related to SUD service authorizations. In particular, an analysis of authorization approvals and denials at different ASAM levels of care. Additionally, there may be interest in understanding the trend in authorizations for SUD beneficiaries by type of SUD (e.g., alcohol, opioid, other).
14. The evaluators recommend that the FSSA create a SUD-specific Provider Manual with service requirements, authorization expectations, and billing guidance. This manual may also include examples of tools used by providers in the field today that are considered best practice for conducting SUD assessments. Both providers and MCEs recommended this to the evaluators as a useful 'one-stop' method as a reference in lieu of compiling individual provider bulletins that have been released.
15. The FSSA may want to consider another round of ASAM training for newer Medicaid providers or new staff at existing providers. There was positive feedback from all stakeholders on the utility of the training that was sponsored by the FSSA in 2019.

SECTION H: Interpretations, Policy Implications, and Interactions with Other State Initiatives

Policy Implications

The evaluators observed that some policies adopted by the FSSA may have influenced provider behavior in considering expanding into or eliminating specific services in the ASAM continuum. Additionally, some procedures may have had a similar effect. HMA-Burns has identified specific items that appear to have influenced provider behavior more than others. HMA-Burns offered recommendations to the FSSA on each of these policies in Section G.

1. The current limitation of DMHA's licensure for residential treatment to just ASAM 3.1 and 3.5 may be limiting potential provider capacity in the residential treatment continuum. Further, the lack of an option for ASAM 3.7 may be unintentionally directing more service requests at ASAM 4.0. Another complication is the rate of payment for ASAM 3.1. Many providers communicate that the low rate of reimbursement is a barrier to entry at this residential level.
2. Current state law which limits the number of opioid treatment sites in the state may be infringing on access to this service, particularly in rural portions of the state.
3. The FSSA made an increase in the rate of payment for intensive outpatient services during the demonstration period. Although this was appreciated by providers, many providers indicated that the unintended consequence of this change was greater scrutiny by the MCEs to authorize units of service. Existing providers commented that this has resulted in either an elimination of this service offering or a barrier to entry to start offering it.
4. Understandably, the public health emergency required states to amend existing policies and procedures in order to ensure that services were continually rendered when needed to Medicaid beneficiaries. The FSSA relaxed its requirements for service authorizations for SUD inpatient hospital and residential treatment during the PHE; specifically, a minimum number of days were auto-approved in each setting without the required documentation to prove medical necessity. These policies inherently showed an improvement in the authorization approval rate during the PHE. With these short-term policies now rescinded, there will likely be an uptick in the authorization denial rate for these services as providers become reacclimated to what had previously been standard operating procedure.

Interactions with Other State Initiatives

During the initial SUD demonstration period, the FSSA undertook other initiatives that had a direct impact on the demonstration. As it continues in its demonstration renewal, the FSSA will be mindful of these initiatives as well as new initiatives as they relate to the provisions of SUD services.

1. In addition to authorities related to the provision of SUD services in an IMD, Indiana was also given authorities for the services to persons with serious mental illness (SMI) in an IMD. To the extent that many Medicaid beneficiaries have co-occurring conditions for SUD and SMI, the utilization and expenditure trends for IMD services may be impacted by the authorities granted by CMS under both provisions.

2. The DMHA released proposed changes to its regulations regarding residential ASAM level offerings and made requests for public comment prior to the start of the PHE. The final changes to regulations have yet to be released. Decisions on final changes to DMHA regulations may have an impact on who delivers SUD services and how.
3. As stated above, the FSSA enacted many short-term policies at the start of the PHE to help ensure continuity of care to Medicaid beneficiaries. Trends in access and utilization to services fundamentally changed not just because of the PHE, but then due to the short-term policies put into effect. With the recission of these policies, there will be additional changes to utilization trends manifested by the policy changes.
4. During the demonstration period, the FSSA re-procured its contracts with managed care entities for the Hoosier Care Connect program and, in a separate procurement, the Hoosier Healthwise and Healthy Indiana Plan 2.0 programs. The results of the new procurement were no changes to MCE contractors for Hoosier Healthwise and Healthy Indiana Plan 2.0. For Hoosier Care Connect, one new vendor (UnitedHealthcare) was added. This continuity of vendors should enable the strengthening of the existing SUD provider network and mitigate operational changes required with the new managed care contracts.
5. The FSSA has announced its intention to release a Request for Services for managed care contractors to deliver services under a new managed long term services and supports program that will serve the dual eligible population. The new procurement gives the FSSA opportunities to strengthen the delivery of SUD services to seniors who will be enrolled in this program.
6. The FSSA launched the Indiana Pregnancy Promise Program as part of its Maternal Opioid Misuse Grant to provide case management services to support pregnant individuals with current or previous opioid use before, during, and for one year after the end of the pregnancy.

State of Indiana Interpretations from the Evaluation Findings

Indiana Medicaid is largely not surprised by the findings of this evaluation, particularly in relation to the following points:

- *3.1 and 3.5 ASAM Level of Care Combined Units:* The DMHA and OMPP have discussed and continue to consider options for providers to obtain dual certification for multiple ASAM residential levels of care, particularly if the provider can demonstrate a separation of the programs both physically and programmatically even if they are on the same campus.
- *Need for 3.7 ASAM Level of Care Designation*: Indiana Medicaid is aware of the confusion surrounding the 3.7 level of ASAM, particularly that there is currently no designation process through DMHA to designate this level of care among addiction treatment services providers. DMHA and OMPP have both discussed the importance of establishing the designation/certification of this next level of care within the behavioral health care continuum.
- *Limits on Opioid Treatment Programs:* Indiana Medicaid is working within restrictive state-law parameters when it comes to the delivery of opioid treatment program services. Currently, Indiana Medicaid is working to adopt the OTP bundles used by Medicare, which includes alternative medication assisted treatments besides methadone to help increase access to

alternative forms of MAT. Otherwise, OMPP is aware that the limits on OTPs set in Indiana Code creates a barrier to care within the state.

- *A SUD Provider Specific Manual*: Indiana Medicaid has heard provider confusion around IHCP behavioral health policies and published an updated Behavioral Health Provider Refence Module February 2022. However, it is a combined manual for all behavioral health services (SUD, SMI, PRTF, etc.). Creating a separate manual just for SUD providers is well within the means of OMPP to publish. OMPP will consider this request to better improve communication with our SUD providers.

There were however a few points that were alarming to Indiana Medicaid:

- *Few beneficiaries with SUD who were discharged from an inpatient hospital or residential treatment setting for SUD were enrolled in the MCE's case management program*.
    - This is disheartening, given that the MCEs are contractually obligated to provide case management to IHCP members. Indiana Medicaid needs to understand where this breakdown is occurring and what each MCE's criteria is for enrolling members into its case management program.
- *Overdose deaths among Medicaid beneficiaries did increase during the demonstration period from the pre-demonstration period.*

Besides those points, the results of this demonstration are largely positive and enlightening. It is encouraging that among the 51 measures reviewed as part of the summative evaluation, there were 35 measures where the desired outcome was met, and that the outcome was statistically significant in 19 of these measures.

SECTION I: Lessons Learned and Recommendations

Lessons Learned

As it worked to implement many new initiatives in its demonstration in a short turnaround time period, Indiana's FSSA learned some lessons early on in its demonstration that it is mindful of moving forward.

1. There is a balance in communicating program changes to stakeholders, particularly with new service coverage, policies, or operational requirements such as billing changes. Over-communication can cause as much confusion as under-communication, particularly if all policy and procedure considerations have been fully considered. In the haste to implement new benefits in a short turnaround time after the demonstration was approved, the FSSA issued guidance that was incomplete in some cases and future guidance then contradicted what had been released previously. This caused confusion from both providers and managed care entities. Further, the dissemination of information in small pieces rather than from a centralized location (e.g. a dedicated website or online provider manual) brought into question from stakeholders which documents were the source of truth.
2. Feedback is helpful from managed care entities on policies, billing, and interpretations introduced by the Medicaid agency to ensure consistency when implemented with the provider base. This avoids "back-tracking" later on in the process after changes have been made that are not implemented consistently across managed care entities.
3. Continual education on the use and interpretation of ASAM criteria is required, particularly with new providers coming online and staff turnover at tenured providers.

Recommendations

Indiana's FSSA offers the following recommendations to other states who are implementing SUD demonstrations or are considering seeking authority under this demonstration.

1. Indiana recommends to other states to convene its providers and managed care entities on a regular basis to communicate what is happening "on the ground", particularly at the introduction of new services or expansion of existing services. In addition to providing a forum for multiple viewpoints to successfully implement waiver activities, these meetings foster collaboration between stakeholders and offer the state the ability to share its vision for SUD service implementation to all stakeholders.
2. Related to this, providers and managed care entities need education on the ASAM service continuum and the six dimensions of assessment. States are encouraged to convene stakeholders to educate them about ASAM. Indiana sponsored training from ASAM professionals to deliver this training at no charge to its providers and MCEs. This is an important tool to help achieve a better understanding not only on best practices related to assessment, but also supporting service authorization requests and determining appropriate transitions of care for SUD beneficiaries.
3. State Medicaid Agencies are encouraged to take an active approach in reviewing authorization determinations by its managed care contracted entities. This includes assessing who is doing the authorization reviews, what is the trend in authorization dispositions (approvals and denials),

what is the rationale for denials by the MCEs, what patterns are found among SUD providers in authorization denials (i.e., is more education required for some providers), and what services are found to have the greatest rate of authorization denials and why. Gaining a solid understanding of what is happening in the field related to service authorization requests may help to mitigate tension between providers and MCEs.

Appendix A – Evaluation Design Plan

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop S2-25-26
Baltimore, Maryland 21244-1850

CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR MEDICAID & CHIP SERVICES

State Demonstrations Group

JUN 0 6 2019

Allison Taylor
Medicaid Director
Indiana Family and Social Services Administration
402 W. Washington Street, Room W461, MS25
Indianapolis, IN 46204

Dear Ms. Taylor:

On March 21, 2019, the state of Indiana submitted to the Centers for Medicare & Medicaid Services (CMS) a final evaluation design for the substance use disorder (SUD) component of the state's section 1115(a) demonstration, entitled "Healthy Indiana Plan (HIP)," (Project No. 11-W-00296/5), approved on February 1, 2018. The design, which responded to CMS comments provided to the state on March 1, 2019, was submitted in fulfillment of the requirement for an SUD evaluation design as described in the special term and condition (STC) #9 of section X.

I am pleased to inform you that CMS has approved Indiana's evaluation design for the SUD demonstration. The design is consistent with the requirements outlined in the applicable demonstration STCs and the State Medicaid Director Letter SMD # 17-003, "Strategies to Address the Opioid Epidemic". We sincerely appreciate the state's commitment to a rigorous evaluation approach of their initiative.

CMS has added the approved SUD evaluation design to the demonstration STCs as part of Attachment C. A copy of the STCs that includes the new attachment is enclosed with this letter. Per 42 CFR 431.424(c), the approved evaluation design may now be posted to the state's Medicaid website within thirty days of CMS approval. CMS will also post the approved evaluation design as a standalone document separate from the STCs on Medicaid.gov.

On May 14, 2019, CMS received Indiana's revised draft HIP evaluation design, which addresses the remaining components of the HIP demonstration, including community engagement. This deliverable was submitted in accordance with the requirements described in STCs #3 and #4 of section XV. The revisions are currently under review by CMS.

We look forward to our continued partnership with you and your team on the Indiana HIP section 1115 demonstration evaluation. If you have any questions, please contact your project officer, Jennifer Maslowski, at Jennifer.Maslowski@cms.hhs.gov.

Sincerely,

Andrea J. Casart
Director
Division of Medicaid Expansion Demonstrations

Enclosure

cc: Ruth Hughes, Deputy Director of Field Operations North

EVALUATION DESIGN PLAN FOR INDIANA'S 1115 SUBSTANCE USE DISORDER (SUD) WAIVER

FINAL DRAFT
MARCH 21, 2019

BURNS & ASSOCIATES, INC.
Health Policy Consultants

3030 NORTH THIRD STREET, SUITE 200
PHOENIX, AZ 85012
(602) 241-8520

Mark Podrazik, Principal Investigator

Design team:

Kara Morgan, PhD
Kara Suter, MS
Debbie Saxe

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SECTION I: GENERAL BACKGROUND INFORMATION

I.A Introduction

Indiana, along with a number of states, is in the midst of a substantial drug abuse epidemic. The magnitude of the epidemic is demonstrated by the following facts:

- Nearly six times as many Hoosiers died from drug overdoses in 2014 as did in 2000, and the number of heroin overdose deaths increased by nearly 25 times between 2000 and 2014.[1]
- In 2014, Indiana had the 16th highest drug overdose death rate in the nation, which represented a statistically significant increase in the rate from 2013.[2]
- Since 2009, more Hoosiers have lost their lives due to a drug overdose than in automobile accidents on state highways.[3]
- The State's Medicaid population has been particularly impacted by the crisis: nearly 100,000 individuals were treated for a diagnosis of substance use disorder in 2016.[4]

As an outgrowth of recommendations made by the State's Taskforce on Drug Enforcement, Treatment, and Prevention, the Family and Social Services Administration (FSSA) requested a waiver from the Centers for Medicare and Medicaid (CMS) under the authority of section 1115(a) of the Social Security Act. The waiver request was to add new evidence-based substance use disorder (SUD) treatment services and to expand access to qualified providers through a waiver of the Institution for Mental Diseases (IMD) exclusion. As proposed, the SUD services would be available to all Medicaid beneficiaries, not just those eligible as a result of the demonstration waiver. The waiver application was submitted on January 31, 2017 and amended on July 20, 2017. CMS subsequently approved the extension request on February 1, 2018 (Project No. 11-W-00296/5). The approved waiver is effective from February 1, 2018 through December 31, 2020 and will provide access to the enhanced SUD benefit package for all Indiana Medicaid recipients. Services will be delivered through fee for service (FFS) and managed care delivery systems.

On February 1, 2018, Indiana also received approval of its SUD Implementation Protocol as required by special terms and conditions (STC) X.10 of the state's section 1115 Health Indiana Plan (HIP)

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[1] INDIANA STATE DEPARTMENT OF HEALTH, INDIANA: SPECIAL EMPHASIS REPORT, DRUG OVERDOSE DEATHS, 1999-2013 (2016), available at http://www.in.gov/isdh/files/2016_SER_Drug_Deaths_Indiana.pdf.

[2] R. Rudd et al., Increases in drug and opioid overdose deaths — United States, 2000–2014, 64(50) MORBIDITY AND MORTALITY WEEKLY REPORT 1378 (2016).

[3] INDIANA STATE DEPARTMENT OF HEALTH, INDIANA: SPECIAL EMPHASIS REPORT, DRUG OVERDOSE DEATHS, 1999-2013 (2015), available at http://www.in.gov/isdh/files/2015_SER_Drug_Deaths_Indiana_Updated.pdf

[4] State of Indiana 1115 SUD Waiver Implementation Plan, page 4, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

demonstration. As set forth in the Implementation Plan, Indiana is aligning the six goals for the SUD waiver component with the milestones outlined by CMS as follows:[5]

1. Increased rates of identification, initiation, and engagement in treatment;
2. Increased adherence to and retention in treatment;
3. Reductions in overdose deaths, particularly those due to opioids;
4. Reduced utilization of emergency departments and inpatient settings for treatment where the utilization is preventable or medically inappropriate through improved access to other continuum of care services;
5. Fewer readmissions to the same or higher level of care where the readmission is preventable or medically inappropriate; and
6. Improved access to care for physical health conditions among beneficiaries.

To accomplish these six goals, Indiana Medicaid is focusing on the three following areas[6]:

- Expanded SUD treatment options for as many of its members as possible;
- Stronger, evidence-based certification standards for its SUD providers, particularly its residential addiction providers; and
- Consistency with prior authorization criteria and determinations among its health plans.

In support of these focus areas, Indiana Medicaid and CMS identified six key milestones, as described in their approved Implementation and Monitoring Plan, which include:[7].

1. Access to critical levels of care for SUD treatment;
2. Use of evidence-based SUD-specific patient placement criteria; prior-authorization, providers, payers; matching need to capacity
3. Use of nationally recognized SUD-specific program standards to set provider qualifications for residential treatment facilities;
4. Sufficient provider capacity at critical levels of care, including medication assisted treatment for opioid use disorder (OUD);
5. Implementation of comprehensive treatment and prevention strategies to address opioid abuse and OUD; and
6. Improved care coordination and transition between levels of care.

[5] State Medicaid Director Letter #17-003 RE: Strategies to Address the Opioid Epidemic, November 1, 2017, available at https://www.medicaid.gov/federal-policy-guidance/downloads/smd17003.pdf

[6] Indiana 1115 SUD Waiver Implementation Plan, Updated January 2018, page 4, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

[7] Indiana 1115 SUD Waiver Implementation Plan, Updated January 2018, pages 4 – 30, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

I.B Indiana Medicaid's Six Milestones

A detailed description of activities related to each milestone are below.

1. Improve access to critical levels of care for SUD treatment

- Indiana will align current and expanded or new services along the American Society of Addiction Medicine (ASAM) level of care continuum.
- See Figure 1 for a summary of the ASAM levels of care and Figure 2 for a summary of the key SUD waiver policy changes to improve access, including the timing for implementation and populations impacted, by ASAM level of care.

2. Use of evidence-based SUD-specific patient placement criteria

- Patient Assessment
  - Individuals seeking treatment will be required to undergo a psychosocial assessment that will be used to develop a treatment plan.
  - Providers will be required to submit assessments that address the six dimensions of ASAM patient placement criteria which will be critical in determining the appropriate level of care.
- Utilization Management
  - ASAM levels 2 and above will require prior authorization through either the fee-for-service vendor or one of the managed care entities (MCEs).
  - A single prior authorization form will be developed to assist providers in requesting approval for the most appropriate level of care.

3. Use of nationally recognized SUD-specific program standards for residential treatment

- Develop new administrative rules that align residential facility certification with ASAM patient placement criteria for levels 3.1 and 3.5.
- Require residential facilities to offer medication assisted treatment (MAT) either on-site or through facilitated access off-site.

4. Sufficient provider capacity at critical levels of care

- Pursue stronger data analytics around provider capacity by creating reporting by provider specialty and ASAM level of care.
- Complete an assessment of ASAM providers and services, including availability of MAT.
- Create a new provider specialty for residential addictions facilities, and consider adding additional provider specialties to account for more mid-level practitioners.

5. Implementation of comprehensive treatment and prevention strategies to address opioid abuse

- Governor's Task Force on Drug Enforcement, Treatment and Prevention
  - Established on September 1, 2015 to identify best practices and informed recommendations to policy makers.
  - Membership included the following: General Assembly; Governor's Office; State Department of Health; Department of Corrections; Department of Child Services; Family and Social Services Administration; and other organizations and associations.
  - Task force concluded its work on December 5, 2016, and issued a final report detailing findings and actionable recommendations:

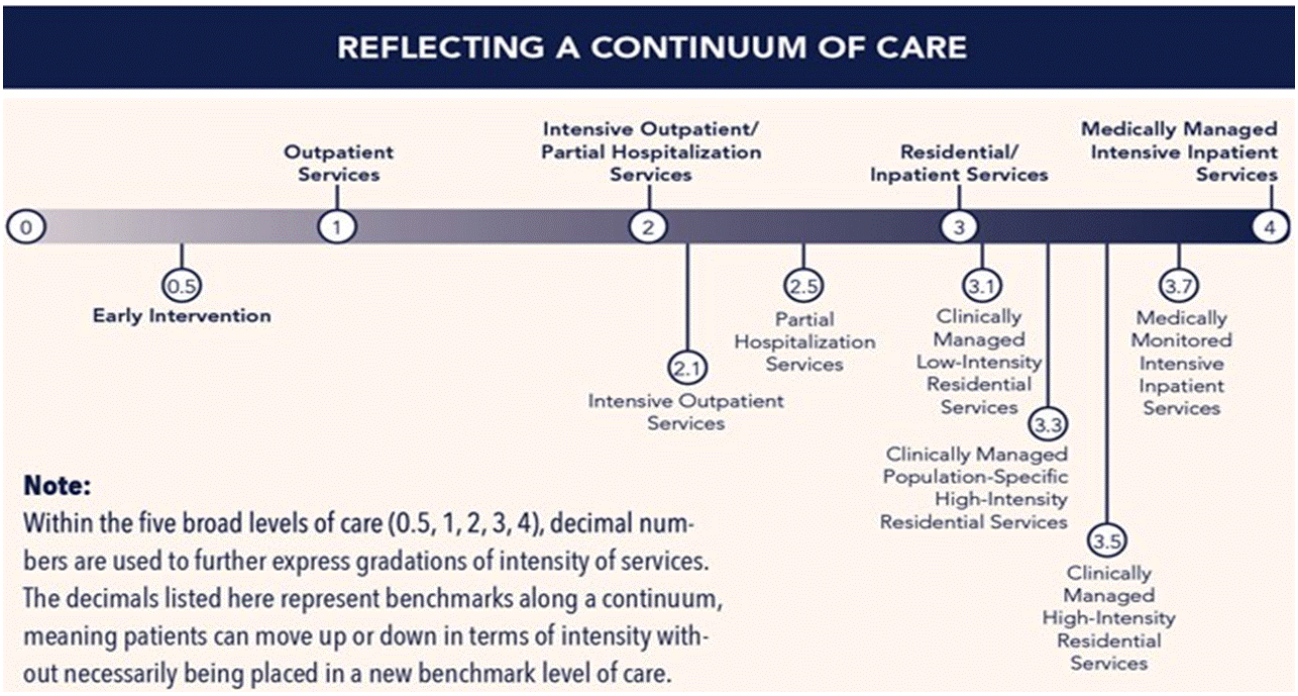
        - 17 recommendations in total;
        - 3 recommendations related to enforcement; and
        - 14 recommendations related to treatment, including pursuit of a Medicaid 1115 Demonstration Waiver for individuals with SUD.
- Gold Card Program
    - Implemented late 2015.
    - Program allows qualified Medicaid prescribers to be exempt from prior authorization document submission requirements when prescribing buprenorphine and buprenorphine/naloxone.
- Buprenorphine Prior Authorization Criteria
    - Established specific prior authorization criteria for prescribers who are not Gold Card members.
    - Criteria is used by all of the MCEs' pharmacy benefit managers to allow for authorization up to six months at a time, and a 34-day supply at a time per member.
- Indiana Attorney General's Prescription Drug Abuse Prevention Task Force
    - Separate task force created in September 2012.
    - Published a four-year report in December 2016, with many of the same objectives identified by the Governor's Task Force acted upon by this task force.
- Prescribing Guidelines
    - Established standards and protocols (844 IAC 5-6) for physicians prescribing opioid controlled substances for pain management treatment.
    - Indiana Senate Enrolled Act 297 (2016) created clinical practice guidelines for office-based opiate treatment.
    - Indiana Senate Enrolled Act 226 (2017) limited prescription supply to seven days for first time opioid prescriptions for adults and children under age 18.
- Expanded Access to Naloxone
    - Indiana Senate Enrolled Act 406 (2015) expanded access to persons at risk for overdose or any individual who knows someone who may be at risk for overdosing.
    - Indiana Senate Enrolled Act 187 (2016) expanded access to allow any individual to walk into a pharmacy for a prescription of Naloxone without having to first see a prescriber.
- Prescription Drug Monitoring Program
    - On August 24, 2017, Governor Eric Holcomb announced a major statewide initiative to incorporate the State's prescription drug monitoring program (INSPECT) into health care systems' electronic health records.
    - Once fully integrated, practitioners will have a single portal to access information about prescribing and dispensing of a controlled substance.
    - Indiana hopes to have all of its hospitals fully integrated within three years.

<u>6. Improved care coordination and transitions between levels of care</u>

- In addition to current MCE contractual requirements for case management, pursue extending the care settings transitioning from inpatient to include residential treatment facilities.
- Expand access to peer recovery coaches across delivery systems.

Since receiving approval of the SUD waiver, Indiana FSSA has been engaged in implementation activities as shown in Figure 3. Additionally, Indiana FSSA completed the procurement of an independent evaluator to develop the SUD Evaluation Design Plan, as required in STC X.9. Burns & Associates, Inc. (B&A), a health care consulting firm with headquarters in Phoenix, Arizona, was contracted by the FSSA to serve in that capacity and, as such, has led development of the initial draft of the Evaluation Design Plan.

Figure 1. ASAM Levels Reflect a Continuum of Care[8]



[8] State of Indiana 1115 SUD Waiver Implementation Plan, page 5, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

Figure 2. Current and Proposed Coverage for Indiana Medicaid, and Implementation Timeline, by ASAM level of care[9]

ASAM Level of Care	Service Title	Description	Current Coverage	Future Coverage	Implementation Timeline
OTP	Opioid Treatment Program	Pharmacological and non-pharmacological treatment in an office-based setting (methadone)	Currently covered for all (as of September 2017)	Continued oversight of new policy	December 31, 2018
0.5	Early Intervention	Services for individuals who are at risk of developing substance-related disorders	Currently covered for all	No change expected	
1	Outpatient Services	Outpatient treatment (usually less than 9 hours a week), including counseling, evaluations, and interventions	Currently covered for all	No change expected	
2.1	Intensive Outpatient Services	9-19 hours of structured programming per week (counseling and education about addiction-related and mental health programs)	Currently MRO-only	Will be covered for all individuals	December 31, 2018
2.5	Partial Hospitalization	20 or more hours of clinically intensive programming per week	Covered for all	No change expected	
3.1	Clinically Managed Low- Intensity Residential	24-hour supportive living environment; at least 5 hours of low-intensity treatment per week	No coverage	Bundled daily rate for residential treatment	March 1, 2018
3.5	Clinically Managed High- Intensity Residential	24-hour living environment, more high-intensity treatment (level 3.7 without intensive medical and nursing component)	No coverage	Bundled daily rate for residential treatment	March 1, 2018
3.7	Medically Monitored Intensive Inpatient	24-hour professionally directed evaluation, observation, medical monitoring, and addiction treatment in an inpatient setting	Covered for all (based on medical necessity)	Align authorization criteria with ASAM	Fall 2018
4	Medically Managed Intensive Inpatient	24-hour inpatient treatment requiring the full resources of an acute care or psychiatric hospital	Covered for all (based on medical necessity)	Align authorization criteria with ASAM	Fall 2018
Sub-Support	Addiction Recovery Management Services	Services to help people overcome personal and environmental obstacles to recovery, assist the newly recovering person into the recovering community, and serve as a personal guide and mentor toward the achievement of goals	No coverage	Covered for all individuals	December 31, 2018
Sub-Support	Supportive Housing Services	Services for individuals who are transitioning or sustaining housing.	No coverage	Explore options for coverage	Begin in 2018

[9] State of Indiana 1115 SUD Waiver Implementation Plan, pages 5-30, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

Figure 3. Indiana SUD Waiver Implementation Activities and Timeline[10]

Waiver Goal	Activities	Implementation Timeline
Improve access to critical levels of care for SUD treatment	Pursue Indiana Administrative Code (IAC) change for coverage and reimbursement of OTPs	Will be filed by December 31, 2018
	Pursue IAC amendments to Mental Health Services Rule for outpatient services	Will be filed by December 31, 2018
	Pursue IAC and SPA amendments to move IOT coverage from MRO to State Plan	IAC will be filed by December 31, 2018. SPA amendment filed by June 30, 2018.
	Pursue amendment to 1915(b)(4) waiver	Will be filed by June 30, 2018
	Make necessary systems changes to CoreMMIS related to IOT coverage change	Will be completed by June 30, 2018
	Develop provider communication over new IOT benefits	Contingent upon approval of SPA (formal notification will be delivered at least 30 days prior to launch)
	Make necessary system changes to CoreMMIS to enroll residential addiction facilities and to reimburse for residential treatment	Will be completed by March 1, 2018
	Develop provider communication over new residential treatment facility benefits	Ongoing as part of roll-out; formal communication will be released with at least 30
	Determine final action and necessary system changes to CoreMMIS to allow reimbursement for inpatient SUD stays on a per diem basis	Fall 2018
	Develop provider communication over changes in reimbursement structure	Ongoing as part of roll-out; formal communication will be released with at least 30 days-notice ahead of launch
	Make necessary system changes to allow reimbursement for Addiction Recovery Management	Spring 2018
	Pursue State Plan Amendment (SPA) to add coverage and reimbursement of services. Coverage of services will begin upon approval of SPA	Spring 2018
	Pursue IAC changes to add coverage of Addiction Recovery Management Services	Will be filed by December 31, 2018
	Develop provider communication over new addiction recovery management benefits	Ongoing as part of roll-out; formal communication will be released with at least 30 days-notice ahead of launch
Use of evidence-based SUD-specific patient placement criteria	Provider education on ASAM Criteria	Ongoing throughout 2018
	Development of standard prior authorization SUD treatment form	Will be completed by July 1, 2018
	Review contracts and pursue amendments where necessary	Will be filed by July 1, 2018
	Review CANS/ANSA for alignment with ASAM Criteria	Will be completed by December 31, 2018
Use of nationally recognized SUD-specific program standards for residential treatment	Finalize process for provisional ASAM designation	Will be completed by December 31, 2017
	Insert permanent certification language in Indiana Administrative Code	Will be filed by December 31, 2018
Sufficient provider capacity at critical levels of care	Create new provider specialty for residential addictions facilities	Will be completed by March 1, 2018
	Data reporting by provider specialty and ASAM level of care	Will be completed by March 31, 2018
	Assessment of ASAM providers and services	Will be completed by December 31, 2018
Implementation of comprehensive treatment and prevention strategies to address opioid abuse	Consider options for emergency responder reimbursement of naloxone	Will be completed in early 2018

[10] State of Indiana 1115 SUD Waiver Implementation Plan, pages 5-30, available at https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-sud-implementation-prtcl-appvl-02012018.pdf

SECTION II: EVALUATION QUESTIONS AND HYPOTHESES

II.A Defining Relationships: Aims, Primary Drivers, and Secondary Drivers

B&A examined the relationships between the CMS goals and Indiana Medicaid-delineated interventions included in the 1115 waiver and approved Implementation Plan. As part of the examination of the relationships between goals and the interventions, B&A constructed two driver diagrams identifying primary and secondary drivers of two principle aims: 1) reducing overdose death; and 2) reducing costs. The driver diagrams are summarized in Figure 4 and Figure 5 on the following two pages of the Evaluation Design Plan.

B&A chose overdose deaths as the first aim because it is a measurable health outcome. CMS goals related to improved quality of care were determined to all have the potential to contribute to a reduction in overdose deaths and therefore are included as primary drivers. And in turn, the specific actions described in the implementation plan, which would be designed to improve these measures of quality of care, were considered as secondary drivers.

Reductions in per capita costs of the SUD population is the second defined aim based on CMS interest on whether the investments in SUD services made as part of the waiver, result in demonstrable reductions in non-SUD services spending. Similar to the approach above, upon examination, B&A identified relationships between goals related to improving physical health and reductions in the use of acute care services as the key primary drivers of achieving a reduction in overall spending, net of SUD investments.

In order to translate these aims, and primary and secondary drivers into measurable results, we compared these items against the measures included in the Monitoring Plan and identified whether new measures may be needed. B&A found that existing, nationally recognized measures were available for the aims and primary drivers; moreover, the specifications and data sources were already described as part of Indiana Medicaid's CMS-approved Monitoring Plan. The one exception is that B&A will add two "potentially preventable" measures. To fill gaps in measuring secondary drivers, B&A added custom measures where needed. These measures, in the post-waiver period, will be used as targets such that performance in the post-waiver period will be considered positive should changes occur in the post- versus pre- waiver period.

A more detailed description of the data, measures and analysis to be used are described in Section III. Methodology.

Figure 4. Driver Diagram 1.1 Target Health Outcome: Reductions in the Overdose Rate

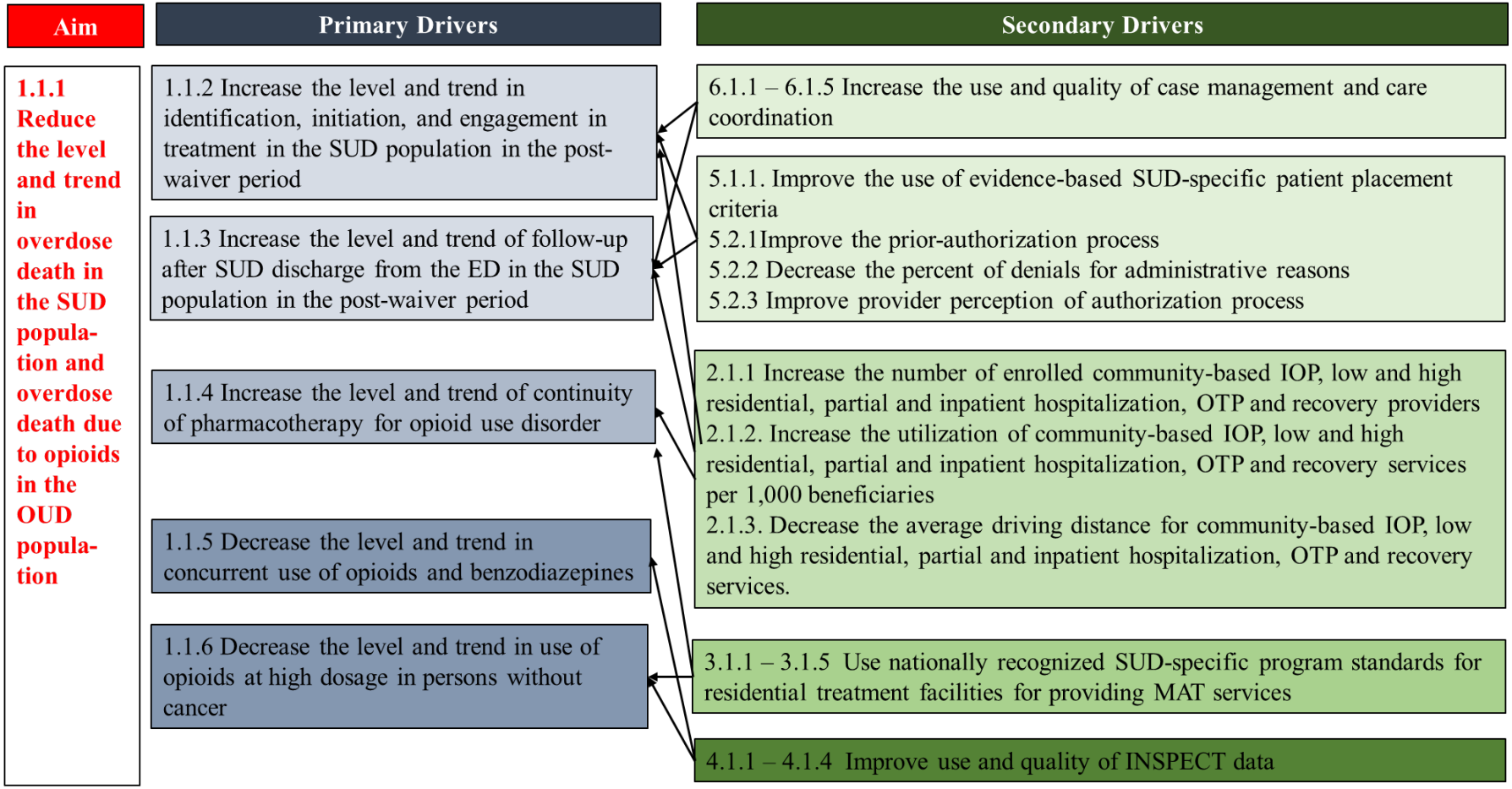
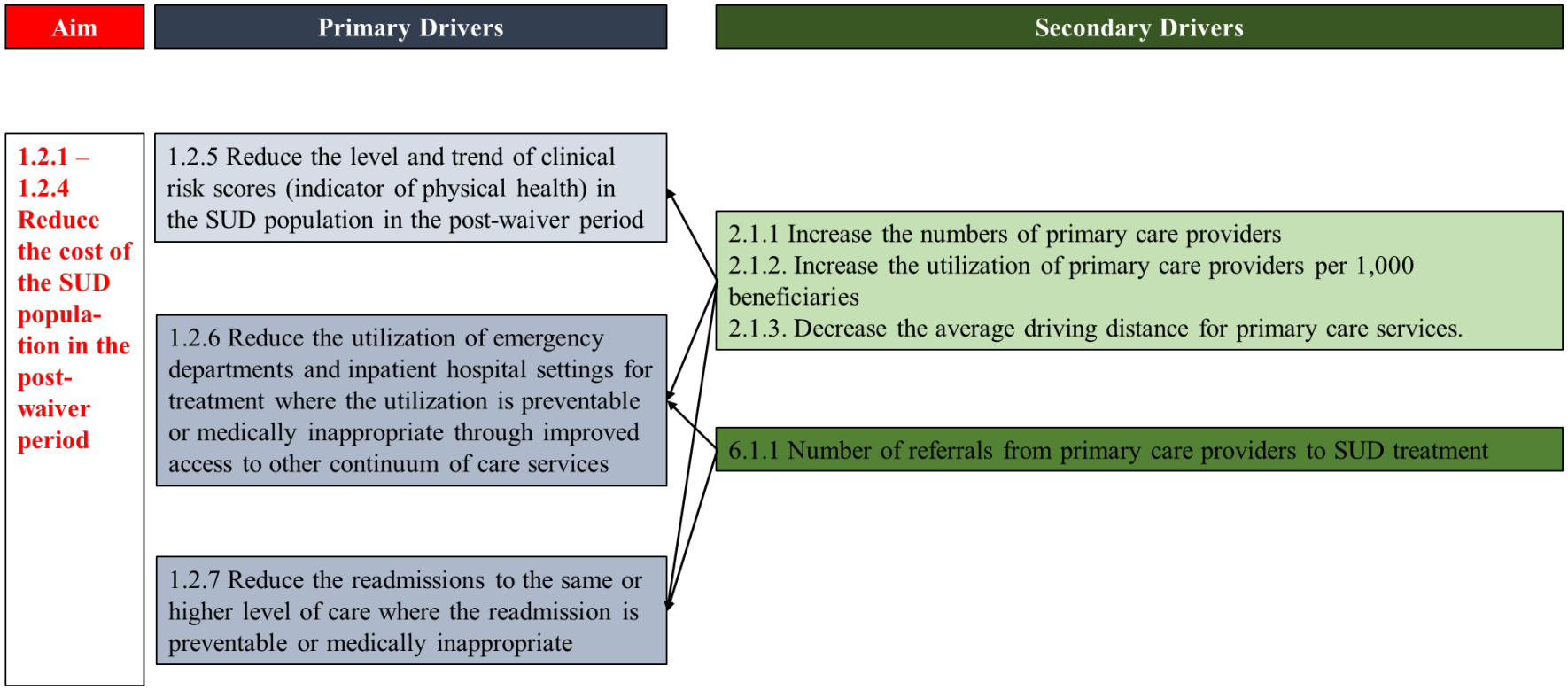


Figure 5. Driver Diagram 1.2 Target Health Outcome: Reductions in Per Capita Cost



II.B Hypotheses (H) and Research Questions (Q)

Aims and Primary Drivers

The identified aims, primary and secondary drivers were converted into a series of hypotheses (H) and research questions (Q); and the latter each assigned measures and targeted analytic methodology, described in detail in Section III. Methodology.

Hypothesis 1.1 and 1.2 focus on the aims and primary drivers depicted in the revised driver diagrams. These are the targets for testing using interrupted time series (ITS) as described in Section III. Methodology. The two aims and eight primary drivers will be tested in order to detect statistically significant changes in the pre- and post-waiver period.

The hypotheses and research questions specific to the aims and primary drivers include:

H 1.1 Key health outcomes improve in the SUD population in the post-waiver period.

- Q 1.1.1 Does the level and trend of overdose deaths and overdose due to opioids decrease among the SUD population in the post-waiver period?
- Q 1.1.2 Does the level and trend of initiation and engagement in treatment increase in the SUD population in the post waiver period?
- Q 1.1.3 Does the level and trend of follow-up after discharge from the Emergency Department (ED) for SUD increase among the SUD population in the post waiver period?
- Q 1.1.4 Does the level and trend in continuity of pharmacotherapy for opioid use disorder increase among the OUD population in the post waiver period?
- Q 1.1.5 Does the level and trend in concurrent use of opioids and benzodiazepines decrease in the OUD population in the post waiver period?
- Q 1.1.6 Does the level and trend in the rate of use of opioids at high dosage in persons without cancer decrease in the post waiver period?

H 1.2 Costs of care decreases in the SUD population in the post waiver period.

- Q 1.2.1 Does the level and trend in overall spending for the SUD population decrease in the post waiver period?
- Q 1.2.2 Does the level and trend in SUD service spending for the SUD population increase in the post waiver period?
- Q 1.2.3 Does the level and trend in non-SUD service spending for the SUD population decrease in the post waiver period?
- Q 1.2.4 Does the level and trend in the percentage of SUD facilities who report they accept Medicaid as a payer increase in the post waiver period?
- Q 1.2.5 Does the level and trend in Clinical Risk Group (CRG) risk scores decrease among the SUD population in the post waiver period?
- Q 1.2.6 Does the level and trend in acute utilization for SUD, potentially preventable emergency department or potentially preventable hospital readmissions decrease in the SUD population in the post waiver period?

Secondary Drivers

Hypotheses 2.1 through 6.1 focus on the secondary drivers as depicted in the revised driver diagram and are organized to be consistent with Indiana Medicaid's CMS-approved Implementation Plan. Unlike those aims and primary drivers in Hypothesis 1.1 and 1.2, the secondary drivers are targets for continuous monitoring and quality improvement, and require information beyond what is available in claims or other public data sets, nationally recognized measures, and thus, performance will be assessed using a set of mixed methods to evaluate progress on the secondary drivers. Where possible, measures will be incorporated into a reporting dashboard of the pre- and the to-date post-waiver periods and reported on a quarterly basis, with a refresh every six months. A summary of methods is detailed in Section III. Methodology.

The hypotheses and research questions specific to the secondary drivers include:

H 2.1 Access to care improved in the SUD population in the post-waiver period.

- Q 2.1.1. Does the level and trend in the number of SUD and primary care providers and the number of providers per capita in the SUD population increase in the post waiver period for each ASAM level of care?
- Q 2.1.2 Does the utilization per 1,000 of SUD services and primary care in the SUD population increase in the post waiver period for each ASAM level of care?
- Q 2.1.3 Does the average driving distance for SUD services and primary care decrease in the SUD population in the post waiver period for each ASAM level of care?

H 3.1 Implementing residential treatment facility provider certification requirements based on ASAM level 3.1 and 3.5 criteria will improve provision of care.

- Q 3.1.1 Does provider certification shift from resident and facility-based criteria to treatment-based certification criteria using ASAM level of care over the length of the waiver?
- Q 3.1.2 Does the ability to measure utilization by ASAM facility level improve program monitoring?
- Q 3.1.3 Does provider awareness and use of ASAM Patient Placement Criteria increase over the length of the waiver?
- Q 3.1.4 Do providers offer medication-assisted treatment (MAT)?
- Q 3.1.5 Do residential facilities not currently enrolled in Indiana Medicaid have the opportunity to meet standards for enrollment leading to increased enrollment of residential addictions facilities?

H 4.1 The quality and use of INSPECT data will improve in the post waiver period.

- Q 4.1.1 Were changes to INSPECT made according to the Implementation Plan?
- Q 4.1.2 Did changes to INSPECT result in meaningful reporting capabilities?
- Q 4.1.3 Has the number of prescribers using INSPECT increased over time?
- Q 4.1.4 Has the volume of inquiries into the INSPECT database increased over time?

H 5.1 The Child and Adolescent Needs and Strengths (CANS) and Adult Needs and Strengths Assessment (ANSA) tools are being used to place beneficiaries in ASAM levels of care.

- Q 5.1.1 Are clinical criteria for authorization review for services delivered to beneficiaries with SUD being applied consistently across Indiana's Health Coverage Programs (Hoosier Healthwise, Healthy Indiana Plan, Hoosier Care Connect, and Traditional Medicaid)?

H 5.2 Prior authorization (PA) requirements do not negatively impact access to residential or inpatient services (ASAM 3.1, 3.5 and 4.0).

- Q 5.2.1 Are the rates of prior authorizations (PAs) submitted and PA requests that are denied in the SUD population, controlling for volume, relatively consistent by MCE and over time?
- Q 5.2.2 Are prior authorization (PA) denials predominately for reasons directly related to not meeting clinical criteria as opposed to administrative reasons such as lack of information submitted?
- Q 5.2.3 Is provider administrative burden associated with PA requests cited as a perceived barrier to access to care?

H 6.1 Care coordination and transitions between ASAM levels of care will increase in the post-waiver period.

- Q 6.1.1 Does the proportion of beneficiaries receiving ASAM designation who had a claim in that ASAM level within the next two consecutive months following the month of ASAM assignment increase over time?
- Q 6.1.2 Does the proportion of beneficiaries with a SUD diagnosis who are receiving care coordination increase over time?
- Q 6.1. 3 Do Indiana's MCEs facilitate more active engagement in the case/care management process between behavioral health/substance abuse providers and primary care/other physical health providers for their patients with a SUD diagnosis?

SECTION III: METHODOLOGY

III.A Evaluation Design

The evaluation design is a mixed-methods approach, drawing from a range of data sources, measures and analytics to best produce relevant and actionable study findings. B&A tailored the evaluation approach for each research question described in Section II, Evaluation Hypothesis and Research Questions. The evaluation plan reflects a range of data sources, measures and perspectives. It also defines the most appropriate study population and sub-populations, as well as describes the six analytic methods included in the evaluation design.

The six analytic methods proposed for use across the six goals include:

1. single segment interrupted time series (ITS),
2. descriptive statistics (DS),
3. provider surveys (PS)
4. onsite reviews (OR)
5. desk reviews (DR) and,
6. facilitated interviews (FIs) and/or focus groups (FGs).

Figure 6 on the next page presents a chart displaying which method(s) are used for each hypothesis. It also includes a brief description of the indicated methods, as well as the sources of data on which they rely. The six methods are ordered and abbreviated as described in the first sentence of this paragraph.

As described in Section II.B, the first two hypothesis [1.1. and 1.2] and the 12 associated research questions focus on whether the 1115 SUD waiver provision made an impact on key CMS goals (i.e., aims and primary drivers). In order to facilitate evaluation on whether a statistically significant difference between the pre- and post- waiver period can be detected, the data, measures and methods for these research questions will be tested using healthcare claims and enrollment data, nationally recognized measure specifications, and ITS.

For the remainder of the hypotheses (2.1 – 6.1) and the associated research questions, the focus will shift to the secondary drivers. Given these are targets for continuous monitoring and quality improvement, and require information beyond what is available in claims or other public data sets, this section draws upon a set of mixed methods to evaluate progress on the secondary drivers. Where possible, measures will be incorporated into a reporting dashboard of the pre- and the to-date post-waiver periods and reported on a quarterly basis, with refreshes every six months.

Figure 6. Summary of Six Methods by Hypotheses

Hypo-theses	Method						Description
	1	2	3	4	5	6	
	ITS	DS	PS	OR	DR	FI/FG	
1.1 – 1.2	X	X					ITS will be used. Data sources primarily include claims and enrollment data. The National Survey of Substance Abuse Treatment Services (N-SSATS) data will be used in one instance. As part of the ITS model specification, descriptive statistics will be generated and reported as well.
2.1		X					Claims data will be used to compute a set of access to care measures and reported descriptively and stratified by region, managed care plan or fee for service, and by ASAM level.
3.1		X	X	X	X	*X*	An onsite and a desk review, coupled with the residential provider survey will be used.
4.1		X			X	*X*	This study question will be evaluated using a desk review of externally provided descriptive studies on number of INSPECT users and queries.
5.1 – 5.2		X	X	X		*X*	Onsite reviews will be used to assess the adoption of ANSA and assignment to ASAM by MCEs and FFS. MCE and FFS-supplied data will be used to review prior authorizations for residential and inpatient hospital levels of care. This summary will include: the rate of prior authorization, the rate of prior authorization denials, and the frequency of authorization denial reason code by MCE. A residential and inpatient provider survey will be used to collect data on overall provider perceptions as well as information specific to prior authorization and adoption of ANSA criteria.
6.1		X	X	X		*X*	Claims data and MCE and FFS-supplied care coordination data will be used to calculate descriptive statistics. A cross-sectional provider survey and an onsite review of MCEs and the OMP will also be used to evaluate care coordination activities.

ITS = Interrupted Time Series; DS = Descriptive Statistics; PS = Provider Survey; OR = Onsite Review; DR = Desk Review; FI/FG = Facilitated Interviews and/or Focus Groups

Italics indicate the method will be used "as needed"

III.B Target and Comparison Populations

Target Population

The target population is any Indiana Medicaid beneficiary with Substance Use Disorder (SUD) in the study period. B&A will use the approved specification, described in the CMS-approved Monitoring Plan, for identification of beneficiaries with SUD. Having a positive SUD Indicator Flag will serve as an indicator of exposure to the changes in the waiver. The specification to be used to create the SUD Indicator Flag is included in Attachment D.

While the key study population is the overall SUD population, a standardized set of sub-populations will be identified and examined. B&A will sub-set the SUD population at minimum, by common demographic groups, payer (i.e., MCE or OMPP), and geographic regions. In addition, there are nuances in the 1115 waiver changes, which warrant identification and stratification of the data into a number of sub-populations. See Figure 2 in Section I of the evaluation plan for a summary of the waiver policy changes.

- ASAM Levels: 2.1; 3.1; 3.5; 4; OTP; RS. It is possible that outcomes may differ among the SUD population based on their access to services. B&A will examine the outcomes by those accessing a particular level of care for differences in health outcomes or cost in the post-waiver period compared to the pre-wavier period.

- Risk Scores: Similarly, outcomes may differ among the SUD population for some types of clinically similar groups compared to others. Therefore, B&A will examine outcomes by categorized groups of clinically similar beneficiaries based on the 3M™ Clinical Risk Groups (CRG) to examine whether there are differences in health outcomes or cost among clinically similar groups of SUD beneficiaries.

- ASAM 2.1 Intensive Outpatient Services: coverage is expanding beyond the community-based treatment or Medicaid Rehabilitation Option (MRO); those previously receiving IOP via the MRO option therefore, may not be impacted as much as others not previously eligible for MRO.

- Opioid Use Disorder (OUD): It is likely that those beneficiaries with OUD, compared to those with other types of SUD, may have different health outcomes and access a different mix of services. Therefore, it is possible that the waiver impacts these populations differently and those beneficiaries will be identified and examined as a sub-population. B&A will use the specification for OUD described in the CMS-approved Monitoring Plan.

To fully study the secondary drivers, three surveys will target all identified Indiana Medicaid enrolled providers. In addition, B&A will use Indiana-specific N-SSATS data, which is self-reported provider survey data collected nationally, to explore statewide, multi-payer trends.

The matrices included in Section III.G identify the target population and stratification proposed for each hypothesis and research question.

Comparison Groups

Two ideal comparison groups described in the CMS technical advisory guidance on selection of comparison groups include another state Medicaid population and/or prospectively collected information

prior to the start of the intervention.[11] Specifically, a SUD population with similar demographics, in another state without those waiver flexibilities described in Indiana, would be an ideal comparator. However, identifying whether such a state exists or that data could be obtained given the sensitivity of SUD privacy concerns as it relates to data sharing is outside the scope of the evaluation and therefore not feasible. Similarly, the other example of a control from the design guide is to collect prospective data and to our knowledge, there is no known prospective data collection on which to build baselines.

One exception to this would be for the three reported measures using N-SSATS data, which are collected nationally and reported at a statewide level. In this case, comparator states could be identified and possibly included within the analysis. B&A will compare these trends for up to two other states if desired; the two states will be chosen in consultation with Indiana Medicaid, CMS and other stakeholders.

Given the lack of an available and appropriate comparison group, B&A will use an analytic method which creates a pre- and post- waiver (intervention) group upon which to compare outcomes. See Section III.F for more details on the analytic methods.

III.C Evaluation Period

A pre- and post- wavier period will be defined as three calendar years before and three calendar years after waiver implementation. The waiver period is three years and therefore, the pre-period will also be for three years. The pre-waiver period, therefore, is defined as enrollment or dates of service of January 1, 2015 through December 31, 2017. The post-waiver period is defined as enrollment or dates of service of January 1, 2018 through December 31, 2020. Also, in support of the analytic methods described in Section III.F, the calendar year data will be sub-set into both monthly and quarterly segments such that both the pre- and post- waiver periods will include 12 quarters or 36 months each.

To simplify the analytic plan, B&A is making an assumption about the first month of 2018. Although CMS approved the SUD provisions of Indiana's 1115 waiver in February 2018, not in January 2018, waiver-related activities were moving forward in anticipation of approval and for ease of conducting and describing the analysis, the evaluation period will include the one month of the post-intervention period following submission of the waiver but prior to February 2018 approval.

Similarly, while this is the expected post-evaluation period, modifications may be warranted to better reflect differences in the time period upon which one would expect to see a change in outcome resulting from waiver activities. At this time, there was little data or similar studies on which to base specific alternatives to the proposed post-evaluation period. B&A will therefore, examine time series data in order to identify whether the post-evaluation period should be delayed. For example, if review of the data shows a distinctive change in the third quarter of 2018, the post-period would be adjusted such that the first and second quarter data would not be considered in the interrupted time series analysis described in Section III.F.

III.D Evaluation Measures

The measures included in the evaluation plan directly relate to the aims, primary and secondary drivers described in Section II. The measures fall into three primary domains: quality, access and financial. All

[11] Comparison Group Evaluation Design. https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-eval-dsgn.pdf.

the measures in Indiana's existing Monitoring Plan are included as well as additional measures including average driving distance, potentially preventable emergency department visits and hospital readmissions.

Figure 7 summarizes the list of measures included in the evaluation plan. A comprehensive summary of measures, which includes measure stewards as well as a description of numerators and denominators can be found in the detailed matrices in Section III.G.

Figure 7. List of Measures by Domain

Quality

- Potentially Preventable Emergency Department Visits
- Potentially Preventable Re-Admissions
- Initiation and Engagement of Alcohol and Other Drug (AOD) Dependence Treatment
- Follow-Up After Discharge from the ED for Alcohol or Other Drug Dependence
- Use of Opioids at High Dosage in Persons Without Cancer
- Concurrent Use of Opioids and Benzodiazepines
- Continuity of Pharmacotherapy for Opioid Use Disorder
- Emergency Department Utilization for SUD Per Member Month
- Inpatient Admissions for SUD Per Member Month
- Readmissions for SUD
- Overdose Deaths
- Opioid Overdose Deaths
- Average Clinical Risk Group (CRG) Score

Access

- Utilization of ASAM-specific Services per 1,000
- Count of ASAM-specific Providers
- Average Driving Distance for ASAM-specific Services
- Number of Prior Authorizations
- Number and Reason for Denial of Prior Authorization

Financial

- Total costs
- Total federal costs
- SUD-IMD
- SUD-other
- Non-SUD
- Outpatient costs – non ED
- Outpatient costs – ED
- Inpatient costs
- Pharmacy costs
- Long-term care costs

III.E Data Sources

As described in section III.A, Evaluation Design, B&A will use existing secondary data sources as well as collect primary data. The evaluation design relies most heavily on the use of Indiana Medicaid administrative data, i.e., enrollment, claims and encounter data. Supplemental administrative data, such as prior approval denials and authorizations, will also be incorporated. Primary data will be limited and include data created by surveys, desk review and facilitated interview instruments. A brief description of these data and their strengths and weaknesses are below.

Indiana Medicaid Administrative Data

Claims and encounters with dates of service (DOS) from January 1, 2015 – December 31, 2020 will be collected from the OMPP Enterprise Data Warehouse (EDW), facilitated by OMPP's EDW vendor, Optum. Managed care encounter data has the same record layout as fee-for-service, and includes variables such as charges and payments at the header and line level. Payment data for MCE encounters represents actual payments made to providers, including SUD and related services payments. Three of the four MCEs in Indiana were contracted through the entire study period, with the fourth, CareSource, added effective January 1, 2017.

A data request specific to the 1115 SUD Evaluation Design Plan, will be given to Optum and the data will be delivered to B&A in an agreed upon format. The initial EDW data set will include historical data up to the point of the delivery, with subsequent data sent on a monthly basis. All data delivered to B&A from the OMPP will come directly from the EDW. B&A will leverage all data validation techniques used by Optum before the data is submitted to the EDW. When additional data is deemed necessary for the evaluation, B&A will outreach directly to the MCEs to obtain the necessary data for the evaluation, including running the required data validations. A refresh of the EDW for additional claims with these dates of services will be done at six month and twelve-month intervals; the last query of the EDW will occur on January 1, 2022 for claims with DOS in the study period.

Additional data from the MCEs and the State will be collected on prior authorizations, denials, denial reason codes as well as data on care coordination activities. There could be some data validity or quality issues with these sources as they are not as rigorously collected as claims and encounters data. That being said, we will use a standard quality review and data cleaning protocol in order to validate these data, as well as provide detailed specifications and reporting tools to the MCEs and the state to minimize potential for differences in reporting of the requested ad-hoc data.

Survey and Facilitated Interview Data

N-SSATS

The National Survey of Substance Abuse Treatment Services (N-SSATS) is an annual survey of service providers. This data is reported at a statewide level and therefore, this data does not allow states to isolate demonstration populations. Moreover, the CMS technical guidance states that this survey is known to undercount Medicaid providers. Therefore, this data is used as supplement and will be used to review for descriptive trends over time.

Provider Survey or Interview Guides

B&A will construct standardized instruments in order to create primary data. The instruments will be provided to CMS for their feedback in advance of fielding. The instruments will be created after doing preliminary desk reviews and analysis, and therefore, are not included in the evaluation plan. It is

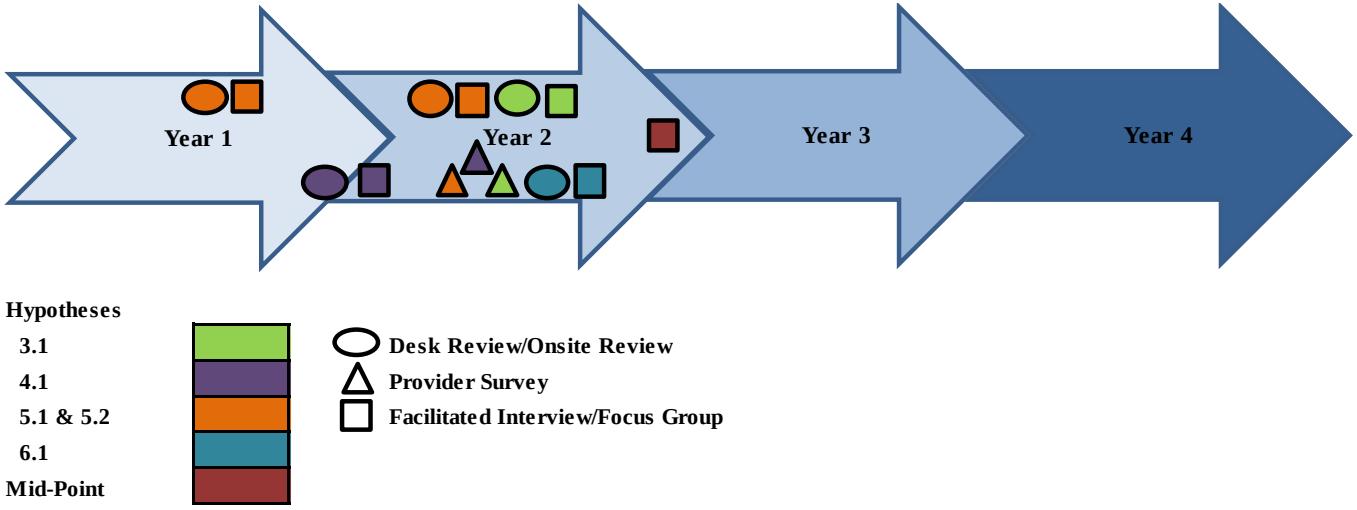
anticipated that once the survey instruments are approved by CMS, they will be fielded for one month before initial results would be tabulated. Where focused interviews are used to collect data, B&A will hold a sufficient number of sessions to collect the required data in accordance with the research question and CMS deliverable. Figure 8 contains the proposed primary data collection activities by source, year, and hypotheses. Figure 9 demonstrates the proposed primary data collection timeline by type, year, and hypotheses.

Figure 8. Proposed Primary Data Collection Activities, by Source, Year and Hypotheses

		Desk / Onsite Review			Survey	Facilitated Interviews / Focus Groups			
Hypotheses	Source	MCEs	CMCS	State Agencies	Providers	Beneficiaries	Providers	CMCS	MCEs
	Contract Year 1								
	3.1	X		X					
	4.1			X					
	5.1 and 5.2	X	X	X				X	X
	6.1								
	Contract Year 2								
	3.1				X		X		
	4.1				X		X		
	5.1 and 5.2	X	X	X	X			X	X
	6.1	X		X			X		X
Mid-Point Assessment						X	X		X

*** Years correspond to B&A contract, and run June 1 through May 30. Year 1 began in 2018.**

Figure 9. Proposed Primary Data Collection Timeline, by Type, Year and Hypotheses



*** Years correspond to B&A contract, and run June 1 through May 30. Year 1 began in 2018.**

III.F Analytic Methods

Figure 6 in Section III.A, Evaluation Design, depicts the six analytic methods to be used in the analysis. A detailed review of each are included in this section.

Method 1: Interrupted Time Series (ITS)

Interrupted time series (ITS) is a quasi-experimental method used to evaluate health interventions and policy changes when randomized control trials (RTC) are not feasible or appropriate.[12,13,14] As it would not be ethical or consistent with Medicaid policy to withhold services resulting from waiver changes from a sub-set of SUD beneficiaries for purposes of evaluation, an RTC is therefore, not possible. Per CMS technical guidance, the ITS is the preferred alternative approach to RTC in the absence of an available, adequate comparison group. And finally, the ITS method is particularly suited for interventions introduced at the population level which have a clearly defined time period and targeted health outcomes.[15,16,17]

An ITS analysis relies on a continuous sequence of observations on a population taken at equal intervals over time in which an underlying trend is "interrupted" by an intervention. In this evaluation, the waiver is the intervention and it occurs at a known point in time. The trend in the post-waiver is compared against the expected trend in the absence of the intervention.

While there are no fixed limits regarding the number of data points because statistical power depends on a number of factors like variability of the data and seasonality, it is likely that a small number of observations paired with small expected effects may be underpowered.[18] The expected change in many outcomes included in the evaluation are likely to be small and therefore, B&A will use 72 monthly observations where possible and 24 quarterly observations where monthly are not deemed reliable.

In order to determine whether monthly or quarterly observations will be created, a reliability threshold of having a denominator of a minimum number of 100 observations at the monthly or quarterly level will be used. If quarterly reporting is not deemed reliable under this threshold, the measure and/or stratification will not be tested using interrupted time series and instead, these measures will be computed using calendar year data in the pre- and post-period and reported descriptively.

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[14] Campbell M , Fitzpatrick R, Haines A, Kinmonth AL, Sandercock P, Spiegelhalter D, et al. . Framework for design and evaluation of complex interventions to improve health. BMJ 2000;321:694.

[15] Soumerai SB. How do you know which health care effectiveness research you can trust? A guide to study design for the perplexed. Prev Chronic Dis 2015;12:E101.

[16] Wagner AK , Soumerai SB, Zhang F, Ross-Degnan D. Segmented regression analysis of interrupted time series studies in medication use research. J Clin Pharm Ther 2002;27:299-309.

[17] James Lopez Bernal, Steven Cummins, Antonio Gasparrini; Interrupted time series regression for the evaluation of public health interventions: a tutorial, International Journal of Epidemiology, Volume 46, Issue 1, 1 February 2017, Pages 348–355, https://doi.org/10.1093/ije/dyw098

[18] James Lopez Bernal, Steven Cummins, Antonio Gasparrini; Interrupted time series regression for the evaluation of public health interventions: a tutorial, International Journal of Epidemiology, Volume 46, Issue 1, 1 February 2017, Pages 348–355, https://doi.org/10.1093/ije/dyw098

ITS Descriptive Statistics

All demographic, population flags, and measures will be computed and basic descriptive statistics created: mean, median, minimum, maximum, standard deviation. These data will be inspected for identification of anomalies and trends.

To identify underlying trends, seasonal patterns and outliers, scatter plots of each measure will be created and examined. Moreover, each outcome will undergo bivariate comparisons; a Pearson correlation coefficient will be produced for each measure compared to the others as well as each measure in the pre- and post- periods.

Regression Analysis

Wagner et al. described the single segmented regression equation as[19]:

$$\hat{Y}_t = \beta_0 + \beta_1 * time_t + \beta_2 * intervention_t + \beta_3 * time\_after\_intervention_t + e_t$$

Where: Y_t is the outcome

time indicates the number of months or quarters from the start of the series

intervention is a dummy variable taking the values 0 in the pre-intervention segment and 1 in the post-intervention segment

time_after_intervention is 0 in the pre-intervention segment and counts the quarters in the post-intervention segment at time t

β_0 estimates the base level of the outcome at the beginning of the series

β_1 estimates the base trend, i.e. the change in outcome in the pre-intervention segment

β_2 estimates the change in level from the pre- to post-intervention segment

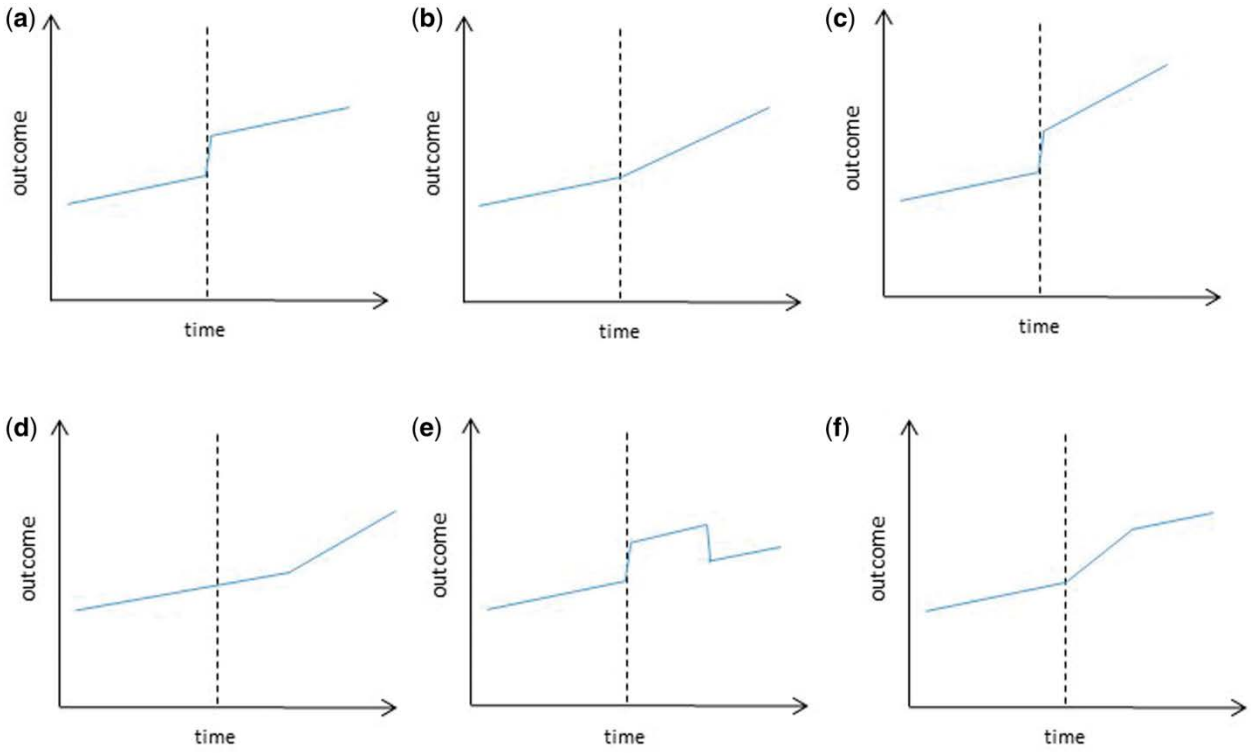
β_3 estimates the change in trend in the post-intervention segment

e_t estimates the error

Visualization and interpretation will be done as depicted in the Figure 10. Each outcome will be assessed for one of the following types of relationships in the pre- and post- wavier period: (a) Level change; (b) Slope change; (c) Level and slope change; (d) Slope change following a lag; (e) Temporary level change; (f) Temporary slope change leading to a level change.

[19] Wagner AK , Soumerai SB, Zhang F, Ross-Degnan D. Segmented regression analysis of interrupted time series studies in medication use research. J Clin Pharm Ther 2002;27:299-309.

Figure 10. Illustration of Potential ITS Relationships[20]



Seasonality and Autocorrelation

One strength of the ITS approach is that it is less sensitive to typical confounding variables which remain fairly constant such as population age or socio-economic status as these changes relatively slowly over time. However, ITS may be sensitive to seasonality. To account for seasonality in the data, the same time period, measured in months or quarters, will be used in the pre- and post-waiver period. Should it be necessary, a dummy variable can be added to the model to account for the month or quarter of each observation thereby controlling for the seasonal impact.

An assumption of linear regression is that errors are independent. When errors are not independent, as is often the case for time series data, alternative methods may be warranted. To test for the independence, B&A will review a residual time series plot and/or autocorrelation plots of the residuals. In addition, a Durbin-Watson test will be constructed to detect the presence of autocorrelation. If the Durbin-Watson test statistic value is well below 1.0 or well above 3.0, there is an indication of serial correlation. If autocorrelation is detected, an autoregressive regression model, like the Cochrane-Orcutt model, will be used in lieu of simple linear regression.

Other assumptions of linear regression are that data are linear and that there is constant variance in the errors versus time. Heteroscedasticity will be diagnosed by examining a plot of residuals verses predicted values. If the points are not symmetrically distributed around a horizontal line, with roughly constant

[20] From: Interrupted time series regression for the evaluation of public health interventions: a tutorial Int J Epidemiol. 2016;46(1):348-355. doi:10.1093/ije/dyw098. Int J Epidemiol.

variance, then the data may be nonlinear and transformation of the dependent variable may be warranted. Heteroscedasticity often arises in time series models due to the effects of inflation and/or real compound growth. Some combination of logging and/or deflating may be necessary to stabilize the variance in this case.

For these reasons and in accordance with CMS technical guidance specific to models with cost-based outcomes, B&A will use log costs rather than untransformed costs, as costs are often not normally distributed. For example, many person-months may have zero healthcare spending and other months very large values. To address these issues, B&A will use a two-part model that includes zero costs (logit model) and non-zero costs (generalized linear model).

Controls and Stratification

As described in Section III.B, the regression analysis will be run both on the entire SUD target population and stratified by relevant sub-populations. The sub-population level analysis may reveal waiver effects that would otherwise be masked if only run on the entire SUD population. Similarly, common demographic covariates such as age, gender, and race will be included in these models to the extent they improve the explanatory power of the ITS models.

Method #2: Descriptive Statistics

In order to facilitate ongoing monitoring, all measures will be summarized on an ongoing basis over the course of the waiver. The descriptive statistics will be stratified by ASAM level of care, by MCE and FFS delivery systems, and/or by region where possible. For reporting purposes, the descriptive studies will be subject to determination of a minimum number of beneficiaries in an individual reported cell (i.e., minimum cell size) and subject to blinding if the number falls below this threshold. While a conventional threshold is 10 or fewer observations, given the sensitivity of SUD and the public dissemination of report findings, a higher threshold may be established by B&A upon review of the final data.

Results will primarily be reported in terms of longitudinal descriptive statistics of defined groups of SUD beneficiaries and using regional maps where possible.

Method #3: Provider Surveys (PS)

In order to fill gaps and address questions for which claims-based data is insufficient, one-time, cross-sectional provider surveys will be fielded. The surveys will be sent via an online survey tool. The survey will be sent to 100 percent of targeted providers. The provider groups include residential providers, inpatient providers and those serving patients with SUD who are receiving care coordination.

The surveys will collect anonymous information related to perceptions of barriers, value and efficiency of improvements under the waiver. Dissemination of the survey and efforts to improve response rates will be coordinated with the OMPP and applicable Indiana provider and/or professional associations. The response rate will be clearly stated and considered when evaluating and/or presenting any findings. The survey questions will be presented to CMS in advance of fielding for their feedback and approval.

A detailed overview of each survey along the dimensions of interest to CMS (defining cohort, study period, analytics, etc.) are included for each research question using survey findings in Section III.G.

Method #4: Onsite Reviews (OR)

In order to fill gaps and address questions for which claims-based data and provider surveys are insufficient, a number of onsite reviews are proposed. These onsite reviews will seek to gain insight on nuanced differences in approach, use and effectiveness of different MCE and FSSA approaches to the following topics:

- Adoption of ANSA screening criteria and subsequent ASAM placement
- Credentialing of residential providers
- SUD care coordination activities

The onsite reviews rely on creating a standardized set of questions that will capture information on process, documentation and medical records. The questions may include onsite documentation gathering and data validation related to those topics described above.

In some cases, the onsite reviews will employ a sampling approach whereby a limited number of beneficiaries are selected based on a set of criteria, and internal records specific to those beneficiaries will be reviewed. The sample criteria would be developed to reflect the representativeness with the SUD population served by each MCE, which will help aid in the comparability of the results of the onsite across MCEs. Finally, the same reviewer (or group of reviewers) will be used for all MCE reviews, strengthening inter-reliability.

A detailed overview of each onsite review along the dimensions of interest to CMS (defining cohort, study period, analytics, etc.) are included for each research question using onsite review findings in Section III.G.

Method #5: Desk Reviews (DR)

A limited number of desk reviews will supplement the other study methods included in the evaluation. These reviews will focus on hypotheses which are directed at assessment of process outcomes like avoidance of implementation delays, system changes according to schedules, transparency of policy and rates, and utility of stakeholder tools and analytics. Each desk review will use a questionnaire that asks for the information sought, the documentation reviewed, and the finding. Any gaps in information will also be noted as findings. The evaluator will review publicly available information and/or documentation specifically requested from the OMPP and/or the MCEs.

A detailed overview of each survey along the dimensions of interest to CMS (defining cohort, study period, analytics, etc.) are included for each research question using desk review findings in Section III.G.

Method #6 Facilitated and/or Focus Group Interviews (FI/FG)

As needed, the evaluator will supplement all study methods using facilitated interviews and/or focus groups. Like the onsite reviews, facilitated interviews and focus groups will be done by first creating a standardized questionnaire that will be used to validate or elucidate gaps in information related to findings of any of the study methods. Since these would be done on an ad-hoc basis, no sampling design would be used; however, at minimum, the evaluator will ensure a broad representation of perspectives when doing additional research about a particular topic. An independent focus group facilitator has been engaged by the evaluation team to conduct these focus groups.

III.G Other Additions

Starting on the next page, a matrix summarizing the methods for each hypothesis and research question described in Section III.A – III.F is presented.

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.1. Does the level and trend of overdose deaths and overdose due to opioids decrease among the SUD population in the post-waiver period?	• Overdose Deaths • *Opioid Overdoes Deaths* Description The number of overdose deaths per 1,000 Medicaid beneficiaries *Description* *The number of opioid overdose deaths per 1,000 Medicaid beneficiaries* Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator 1. Members who died of overdose in month or quarter. Denominator Number of beneficiaries eligible in month or quarter/1000 Age 18 years and older *Numerator* *1. Members who died of overdose due to opioid in month or quarter.* *Denominator* *Number of beneficiaries eligible in month or quarter/1000* *Age* *18 years and older*	OMPP Enterprise Data Warehouse (EDW) Vital Statistics/Indiana State Department of Health (ISDH)	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change in overdose deaths in the pre- and post-intervention periods. Pre-intervention Timeframe Monthly or Quarterly CY2015-CY2017 Post-intervention Timeframe Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.2 Does the level and trend of initiation and engagement in treatment increase in the SUD population in the post waiver period?	• Initiation and Engagement of Alcohol and Other Drug (AOD) Dependence Treatment <u>Description</u> Number of Indiana Medicaid members who have initiated treatment through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization within 14 days of a diagnosis (or two or more additional services within 30 days of the visit). Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	<u>Numerator</u> 1. Members who initiated treatment within 14 days of the diagnosis 2. Members who initiated treatment and who had two or more additional services with a diagnosis within 30 days of the initiation visit <u>Denominator</u> Individuals who were diagnosed with alcohol or drug dependency during a visit within the previous rolling 11 months <u>Age</u> 18 years and older	OMPP Enterprise Data Warehouse (EDW) NCQA	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change in initiation and engagement in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Monthly or Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.3 Does the level and trend of follow-up after discharge from the ED for SUD increase among the SUD population in the post waiver period?	• Follow-Up After Discharge from the Emergency Department for Alcohol or Other Drug (AOD) Dependence <u>Description</u> The percentage of ED visits for members 18 years of age and older with a primary diagnosis of alcohol and other drug (AOD) dependence, who had an outpatient visit, an intensive outpatient encounter, or a partial hospitalization for AOD. Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	<u>Numerator</u> 1. Members who had a follow-up visit to an ED visit with a SUD indicator within 7 days of discharge within the previous rolling 12 months. 2. Members who had a follow-up visit to and ED visit with a SUD indicator within 30 days of Discharge within the previous rolling 12 months. <u>Denominator</u> Individuals with an ED visit (with SUD indicator) within the previous rolling 12 months <u>Age</u> 18 years and older	OMPP Enterprise Data Warehouse (EDW) NCQA	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change in follow up after discharge in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Monthly or Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.4 Does the level and trend in continuity of pharmacotherapy for opioid use disorder increase among the OUD population in the post waiver period?	• Continuity of Pharmacotherapy for Opioid Use Disorder Description The percentage of adults (18 through 64) with pharmacotherapy for opioid use disorder who have at least 180 days of continuous treatment. Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator Individuals who have had at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD without a gap of more than seven days Denominator Individuals with a diagnosis of opioid use disorder and at least one claim for opioid use disorder medication in the previous rolling 12 months. Age 18 – 64 years and older	OMPP Enterprise Data Warehouse (EDW) RAND	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of continuity of pharmacotherapy for opioid use disorder in the pre- and post-intervention periods. Pre-intervention Timeframe Monthly or Quarterly CY2015-CY2017 Post-intervention Timeframe Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.5 Does the level and trend in concurrent use of opioids and benzodiazepines decrease in the OUD population in the post waiver period?	• Concurrent Use of Opioids and Benzodiazepines Description The percentage of beneficiaries 18 years and older with concurrent use of prescription opioids and benzodiazepines. Computed Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator The number of individuals with: 1. 2 or more prescription claims for any benzodiazepine filled on two or more separate days; AND 2. Concurrent use of opioids and benzodiazepines for 30 or more cumulative days Denominator Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is >= 15 Age 18 years and older	OMPP Enterprise Data Warehouse (EDW) PQA/CMT –Measure 903	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of concurrent opioid and benzodiazepines in the pre- and post- intervention periods. Pre-intervention Timeframe Quarterly CY2015-CY2017 Post-intervention Timeframe Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.1 Key health outcomes improve in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.1.6 Does the level and trend in the rate of use of opioids at high dosage in persons without cancer decrease in the post waiver period?	• Use of Opioids at High Dosage in Persons Without Cancer Description The proportion (out of 1,000) of beneficiaries without cancer receiving a daily dosage of opioids greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer with and without a SUD diagnosis. Computed Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator Any member in the denominator with greater than 120 MME for >= 90 days in the quarter. Denominator Any member with two or more prescription claims for opioids filled on at least two separate days, for which the sum of the days supply is >= 15 in the quarter. Age Ages 18 years and older	OMPP Enterprise Data Warehouse (EDW) PQA, CMT-884	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of the use of opioids at a high dosage in the pre- and post- intervention periods. Pre-intervention Timeframe Quarterly CY2015-CY2017 Post-intervention Timeframe Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.1. Does the level and trend in overall spending for the SUD population decrease in the post waiver period?	• Total Spending o Estimated State and Federal Share • Per Capita Spending o Estimated State and Federal Share <u>Description</u> Total spending and per capita total spending broken down by estimated federal and state share using an average FMAP for the study period. Computed Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	<u>Numerator</u> All paid claims based on service date for any beneficiary with SUD indicator in month or quarter. Excludes crossovers. <u>Denominator (Per Capita)</u> Number of enrolled beneficiaries in month or quarter <u>Age</u> All ages	OMPP Enterprise Data Warehouse (EDW) B&A	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of total and per capita spending in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Monthly or Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.2 Does the level and trend in SUD service spending for the SUD population increase in the post waiver period?	• Any SUD Spending • SUD Spending in IMDs • Per Capita Any SUD Spending • Per Capita SUD Spending in IMDs <u>Description</u> Any SUD and IMD spending in total and per capita. Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	<u>Numerator</u> All SUD and IMD paid claims based on service date for any beneficiary with SUD indicator in month or quarter. Excludes crossovers. <u>Denominator (Per Capita)</u> Number of enrolled individuals in month or quarter. <u>Age</u> All ages	OMPP Enterprise Data Warehouse (EDW) B&A	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of total SUD and SUD per capita spending in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Monthly or Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.3. Does the level and trend in non-SUD service spending for the SUD population decrease in the post waiver period?	• Any non-SUD Spending • Per Capita non-SUD Spending o Non-emergency Outpatient o Emergency Department Outpatient o Inpatient o Pharmacy o Long Term Care o Professional Services: Primary versus Specialty o Other Description Any non-SUD spending in total and per capita. Broken down by key categories of services. Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator All non-SUD paid claims based on service date for any beneficiary with SUD indicator in month or quarter. Excludes crossovers. Denominator (Per Capita) Number of enrolled individuals in month or quarter. Age All ages	OMPP Enterprise Data Warehouse (EDW) B&A	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change of total SUD and SUD per capita spending in the pre- and post- intervention periods. Pre-intervention Timeframe Monthly or Quarterly CY2015-CY2017 Post-intervention Timeframe Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.4. Does the level and trend in the percentage of SUD facilities who report they accept Medicaid as a payer increase in the post waiver period?	• Proportion of SUD Providers Who Report Accepting Medicaid *If Quarterly reporting not available, this measure will be reported annually and use for descriptive analysis only*	Indiana SUD providers who respond to N-SSATS survey.	National Survey of Substance Abuse Treatment Services (N-SSATS)	• Interrupted Time Series/*Descriptive* o Examine whether statistically significant differences exist in the rates of change of total SUD and SUD per capita spending in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Quarterly or Annually CY2015-CY2017 <u>Post-intervention Timeframe</u> Quarterly or Annually CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> N/A

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.5. Does the level and trend in average CRG risk scores decrease among the SUD population in the post-waiver period?	• Average Clinical Risk Group (CRG) Score <u>Description</u> The average CRG score for Medicaid beneficiaries with a SUD diagnosis in the month or quarter. Computed Monthly or Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	<u>Numerator</u> Total CRG risk score for members with SUD in month or quarter. <u>Denominator</u> Members with SUD in month or quarter. <u>Age</u> 18 – 64 years and older	OMPP Enterprise Data Warehouse (EDW) 3M/B&A	• Interrupted Time Series o Examine whether statistically significant differences exist in the level and trend in average CRG risk score in the pre- and post- intervention periods. <u>Pre-intervention Timeframe</u> Monthly or Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Monthly or Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

1.2 Costs of care decreases in the SUD population in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
1.2.6 Does the level and trend in acute utilization for SUD, potentially preventable emergency department or potentially preventable hospital readmissions decrease in the SUD population in the post waiver period?	• PPVs and PPRs Description Rate of potentially preventable emergency department visits (PPVs) and hospital readmissions (PPRs) among Indiana Medicaid members with SUD. • ED, Admission and Readmission per member month Description The total number of emergency department visits, hospital admissions and readmissions for SUD diagnosis in the reporting month (per 1,000 enrolled Medicaid members) in previous three months (separate count for each month). Computed Quarterly **if denominator is <100 at this level, compute annual and use for descriptive analysis only*	Numerator Number of potentially preventable visits and/or readmissions Denominator Individuals who were diagnosed with alcohol or drug dependency during the calendar year. Age 18 – 64 years and older Numerator Number of ED visits, hospital admissions, and readmissions with SUD diagnosis. Denominator Enrolled Medicaid members/1000 Age 18 – 64 years and older	OMPP Enterprise Data Warehouse (EDW) 3M PPV and PPR Software B&A	• Interrupted Time Series o Examine whether statistically significant differences exist in the rates of change in acute utilization in the pre- and post-intervention periods. Pre-intervention Timeframe Quarterly CY2015-CY2017 Post-intervention Timeframe Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* Stratification Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

2.1 Access to care improved in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
2.1.1. Does the level and trend in the number of SUD and primary care providers and the number of providers per capita in the SUD population increase in the post waiver period for each ASAM level of care?	• Count of ASAM-specific Medicaid enrolled providers • Number of ASAM-specific Medicaid enrolled providers per 1,000 SUD population Computed Quarterly	<u>Numerator</u> Number of providers enrolled as of last day of quarter. <u>Denominator</u> Individuals with SUD as of the last day of the quarter. <u>Age</u> 18 and older	OMPP Enterprise Data Warehouse (EDW)	• Descriptive Statistics o Examine trends in counts of Medicaid-enrolled providers by ASAM level and per capita in the SUD population, MCE and region. <u>Pre-intervention Timeframe</u> Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]
	• Count of ASAM-specific statewide self-reported provider (N-SSATS)	Indiana SUD providers who respond to N-SSATS survey.	National Survey of Substance Abuse Treatment Services (N-SSATS)	• Descriptive Statistics o Examine changes in statewide trends in counts of providers by ASAM level, MCE and region.

2.1 Access to care improved in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
2.1.2 Does the utilization per 1,000 of SUD services and primary care in the SUD population increase in the post waiver period for each ASAM level of care?	• Utilization of ASAM-specific services per 1,000 • Utilization of primary care services per 1,000 Computed Quarterly	<u>Numerator</u> Number of unique SUD and primary care services as of last day of quarter. <u>Denominator</u> Individuals with SUD as of the last day of the quarter. <u>Age</u> 18 and older	OMPP Enterprise Data Warehouse (EDW)	• Descriptive Statistics o Examine trends in utilization of services per 1,000 SUD population by ASAM level, MCE and region. <u>Pre-intervention Timeframe</u> Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

2.1 Access to care improved in the SUD population in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
2.1.3. Does the average driving distance for SUD services and primary care decrease in the SUD population in the post waiver period for each ASAM level of care?	• Average driving distance for ASAM-specific services • Average driving distance for primary care Computed Quarterly	<u>Numerator</u> Number of unique SUD and primary care services as of last day of quarter. <u>Denominator</u> Individuals with SUD as of the last day of the quarter. <u>Age</u> 18 and older	OMPP Enterprise Data Warehouse (EDW) B&A	• Descriptive Statistics o Examine trends in the average driving distance to SUD and primary care services by ASAM level, MCE and region. <u>Pre-intervention Timeframe</u> Quarterly CY2015-CY2017 <u>Post-intervention Timeframe</u> Quarterly CY2018-CY2020* **refreshed every six months until after six months following run-out.* <u>Stratification</u> Demographics and Geography Clinical Risk Group (CRG) Previous MRO Use MCE and OMPP Opioid Use ASAM Levels [2.1; 3.1; 3.5; 4; OTP; RS]

3.1 Implementing residential treatment facility provider certification requirements based on ASAM level 3.1 and 3.5 criteria will improve provision of care.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
3.1.1. Does provider certification shift from resident and facility-based criteria to treatment-based certification criteria using ASAM level of care over the length of the waiver?	• Document process to phase in and adopt certification criteria based on ASAM level of care • Number of providers pre-waiver • Number of providers certified • Number of providers denied certification and why	OMPP and DMHA certification policies and procedures. MCEs credentialing policies and procedures	Desk Review of OMPP, DMHA, MCE	• Descriptive Statistics o Examine results of process review and measures and develop trend over waiver
3.1.2. Does the ability to measure utilization by ASAM facility level will improve program monitoring?	• Document that ASAM level captured in EDW • Document reports created to track by ASAM level of care and by which metrics • Document use of reports through waiver period to monitor	OMPP and DMHA reporting measures MCEs reporting measures	Desk Review of OMPP, DMHA, MCE	• Descriptive Statistics o Examine results of process review and measures and develop trend over waiver

3.1 Implementing residential treatment facility provider certification requirements based on ASAM level 3.1 and 3.5 criteria will improve provision of care.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
3.1.3. Does provider awareness and use of ASAM Patient Placement Criteria increase over the length of the waiver?	• Document knowledge of criteria • Number of providers using criteria	Residential services providers	Provider Focus Study or Provider Survey* *subject to CMS approval	• Cross-sectional, online, census provider survey. o Examine results of provider focus study or online provider survey and measures and develop trend over waiver
3.1.4. Do providers offer medication-assisted treatment (MAT)?	• Document process to phase in and adopt MAT. • Number of providers pre-waiver • Number of providers offering MAT onsite. • Number of providers offering access to MAT at an affiliated location	Residential services provider	Provider Survey* or Onsite *subject to CMS approval	• Cross-sectional, online, census provider survey. o Examine results of provider focus study or online provider survey and measures and develop trend over waiver

3.1 Implementing residential treatment facility provider certification requirements based on ASAM level 3.1 and 3.5 criteria will improve provision of care.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
3.1.5. Do residential facilities not currently enrolled in Indiana Medicaid have the opportunity to meet standards for enrollment leading to increased enrollment of residential addictions facilities?	• Document process to outreach to unenrolled providers to make them aware of the new enrollment opportunities. • Number of known providers who were not enrolled pre-waiver • Number of providers that enrolled during the waiver period • Number of providers denied enrollment and why	OMPP and DMHA certification policies and procedures. MCEs credentialing policies and procedures	Desk Reviews of OMPP, DMHA, MCE	• Descriptive Statistics o Examine results of process review and measures and develop trend over waiver

4.1 The quality and use of INSPECT data will improve in the post waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
4.1.1. Were changes to INSPECT made according to the Implementation Plan?	• Number of Changes Implemented as Expected • Number of Changes Implemented, but with less than a year delay • Number of Changes Not Implemented or delayed > 1 year	INSPECT	Desk Review of admin documentation and interview notes	• Desk review of administrative documentation between proposed and actual implementation dates • As needed, conduct supplemental facilitated interviews with OMPP staff, fiscal agent staff, and/or INSPECT users
4.1.2. Did changes to INSPECT result in meaningful reporting capabilities?	• Perceptions of Usefulness of INSPECT Reporting Capabilities • Estimated Frequency of Use • Recommended Improvements	INSPECT	Facilitated Interviews	• Review findings of facilitated interviews with IPLA and Indiana Board of Pharmacy staff. • As needed, conduct supplemental facilitated OMPP interviews with broader group of stakeholders including INSPECT users.
4.1.3. Has the number of prescribers using INSPECT increased over time?	• Number of prescribers using INSPECT	All providers using inspect	INSPECT	• Descriptive Statistics o Review trends in use number of prescribers using INSPECT over time.
4.1.4. Has the volume of inquiries into the INSPECT database increased over time?	• Number of queries against INSPECT	All providers using inspect	INSPECT	• Descriptive Statistics o Review trends in use of querying of INSPECT over time.

5.1 The Child and Adolescent Needs and Strengths (CANS) and Adult Needs and Strengths Assessment (ANSA) tools are being used to place beneficiaries in ASAM levels of care.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
5.1.1. Are clinical criteria for authorization review for services delivered to beneficiaries with SUD being applied consistently across Indiana's Health Coverage Programs (Hoosier Healthwise, Healthy Indiana Plan, Hoosier Care Connect, and Traditional Medicaid)?	• Average turnaround time for authorization decisions • For denied authorizations, the percentage of denials based on application of medical necessity criteria • For denied authorizations, the percentage of denials in which the specific reason/criteria were cited to the requesting provider	MCE and FFS	Onsite Review of MCE and FFS Documentation and System B&A	• Develop standardized data request to the MCEs/OMPP to analyze all authorization records related to SUD services • Develop standardized tool with which to evaluate a sample of authorization records related to SUD services in the field at each MCE and at OMPP • In person interviews with the MCE/OMPP (or its contractor) staff who review authorization requests for SUD services to assess their capacity and training

5.2 Prior authorization (PA) requirements do not negatively impact access to residential or inpatient services (ASAM 3.1, 3.5 and 4.0).				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
5.2.1. Are the rates of prior authorizations (PAs) submitted and PA requests that are denied in the SUD population, controlling for volume, relatively consistent by MCE and over time?	• Number of Prior Authorizations (PA) for ASAM 3.1, 3.5 and 4.0 • Number of PA Denials for ASAM 3.1, 3.5 and 4.0 • Rate of Approved and Denied SUD Authorizations for ASAM 3.1, 3.5 and 4.0	Numerator The total number of prior approved and denied authorizations for ASAM 3.1, 3.5 and 4.0 in a calendar year. Denominator Total number of authorizations for ASAM 3.1, 3.5 and 4.0 in a calendar year. Age All ages	OMPP Enterprise Data Warehouse (EDW)/OMPP Data B&A	• Descriptive Statistics o Examine trends in the rate of prior authorizations and denials among stratified populations, over time and by region and MCE.
5.2.2. Are prior authorization denials predominately for reasons directly related to not meeting clinical criteria as opposed to administrative reasons such as lack of information submitted?	• Frequency of Denial Reasons Codes for ASAM 3.1, 3.5 and 4.0 • Percent of Total Denials for ASAM 3.1, 3.5 and 4.0	Numerator Count of denials with each reason for denial for ASAM 3.1, 3.5 and 4.0 in a calendar year. Denominator Total number of denials for ASAM 3.1, 3.5 and 4.0 in a calendar year. Age All ages	OMPP Enterprise Data Warehouse (EDW)/OMPP Data B&A	• Descriptive Statistics o Examine the frequency of denial codes among stratified populations over time and by region and MCE.

5.2 Prior authorization (PA) requirements do not negatively impact access to residential or inpatient services (ASAM 3.1, 3.5 and 4.0).				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
5.2.3. Is provider administrative burden associated with PA requests cited as a perceived barrier to access to care?	• Rate of participation in the FSSA Gold Card program (status to reduce burden on authorization requests) • Provider satisfaction rates with the Gold Card application process	Residential and inpatient service providers.	Online Survey	• Cross-sectional, census provider of survey. o Examine rate of growth among participating providers in the Gold Card program o Examine results of point in time survey of provider perceptions

6.1 Care coordination and transitions between ASAM levels of care will increase in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
6.1.1. Does the proportion of beneficiaries receiving ASAM designation who had a claim in that ASAM level within the next two consecutive months following the month of ASAM assignment increase over time?	• Rate of beneficiaries who received ASAM service within two months following screening and ASAM designation	<u>Numerator</u> Number of beneficiaries who received an ASAM in a given calendar year and received a service within two months within that ASAM level. <u>Denominator</u> Number of beneficiaries who received each ASAM designation in a calendar year. <u>Age</u> All ages	OMPP Enterprise Data Warehouse (EDW) B&A	• Descriptive Statistics o Examine changes in statewide, regional and payer trends in proportion of beneficiaries with an ASAM designation receiving that level of care within the two following months.

6.1 Care coordination and transitions between ASAM levels of care will increase in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
6.1.2. Does the proportion of beneficiaries with a SUD diagnosis who are receiving care coordination increase over time?	• Number of beneficiaries receiving care coordination • Proportion of SUD population receiving care coordination • Percent of all SUD providers reporting using case management (N-SSATS)	<u>Numerator</u> Number of beneficiaries who received care coordination in a calendar year. <u>Denominator</u> Number of beneficiaries with SUD in a calendar year. <u>Age</u> All ages <u>Numerator</u> Number of providers reporting offering case management services. <u>Denominator</u> Number of SUD providers who responded to the survey.	OMPP Enterprise Data Warehouse (EDW) B&A N-SSATS	• Descriptive Statistics o Examine the absolute number of beneficiaries receiving care by MCE over time o Examine the proportion of the SUD population receiving care by ASAM and MCE over time. o Compare Medicaid trends to those reported in all-payer survey. o Stratify SUD and OUD populations if feasible.

6.1 Care coordination and transitions between ASAM levels of care will increase in the post-waiver period.				
Research Question	**Evaluation Measure(s)**	**Study Population**	**Data Sources and Measure Steward**	**Analytic Methods**
6.1.3. Do Indiana's MCEs facilitate more active engagement in the case/care management process between behavioral health/substance abuse providers and primary care/other physical health providers for their patients with a SUD diagnosis?	• Number of care plan meetings between the MCE, primary care and BH/SA providers for patients with a SUD diagnosis • Number of protocols in place for coordination between providers (required by OMPP contract) • Number of referrals from primary care providers for treatment for SUD members • Number of behavioral health provider notifications to the MCE (required by contract)	MCE and OMPP	Onsite Review of MCE and FFS Documentation and Systems	• Descriptive Statistics o Examine trends in reports of count of care plan meetings documented o Examine trends in behavioral health provider reports submitted per SUD member per year o Examine trends in referrals from primary care providers for treatment for SUD

SECTION IV: METHODOLOGICAL LIMITATIONS

There are inherent limitations to both the study design and its specific application to the SUD waiver evaluation. That being said, the proposed design is feasible, and is a rational explanatory framework for evaluating the impact of the SUD waiver on the SUD population. Moreover, to fill gaps left by the limitations of this study design, a limited number of provider surveys, onsite reviews, desk reviews, and facilitated interviews/focus groups are proposed to provide a more holistic and comprehensive evaluation.

Another limitation is the length of time of the evaluation period. It is not expected that a two-year evaluation period, assuming year one is the benchmark period, would be sufficient time to observe changes in all measures of interest. In some cases, the time period may be insufficient to observe descriptive or statically significant differences in outcomes in the SUD population. Therefore, it is expected that not all outcomes included in the study will show a demonstrable change descriptively, although we do expect some process measures to show a change during this time frame.

Moreover, with any study focused on the SUD population and potentially rare outcome measures, such as overdose rates, insufficient statistical power to detect a difference is a concern. For any observational studies, especially if the exposures and the outcomes being assessed are rare, it is difficult to find statistically significant results. It is not unexpected, therefore, that many of the outcome measure sample sizes will be too small to observe statistically significant results.

Related to the issues mentioned above, many of the outcome measures are multi-dimensional and influenced by social determinants of health. While changes under the waiver related to access to care may be one dimension of various outcomes of interest, and may contribute to improvements, it may be difficult to achieve statistically significant findings in the absence of data on other contributing dimensions, like social determinants of health such as housing, employment, and previous incarcerations.

Section V, Special Considerations, will summarize the unique challenges in this study, reemphasizing the need for a mix-methods approach.

SECTION V: SPECIAL METHODOLOGICAL CONSIDERATIONS

Given that the waiver is new, and there are no identified implementation delays, or any other outstanding concerns, the proposed Evaluation Design Plan provides more than adequate rigor in the observational study design, especially when considering the range of supplemental evaluation methods proposed for inclusion. As described in detail in Section IV, Methodological Limitations, the study mitigates known limitations to the extent feasible drawing upon the range of options to fill gaps in the observational study design. Moreover, this Evaluation Design Plan is consistent with, and expands upon, CMS approved 1115 demonstration waiver SUD evaluation plans available on the CMS State Waivers List.[21]

Another special consideration is in the case of residential treatment in IMDs. While the waiver change is stated as "no coverage" to "coverage for all", B&A identified that IMD residential services may have been provided in the pre-waiver period, but these would be funded by100% state funds as opposed to matched federal dollars. Therefore, it is unclear whether a detectable change will be seen related to IMDs specifically, or whether change is created by the availability of new funds to be invested in other waiver services. This nuance will be considered when evaluating the results.

[21] Medicaid State Waivers List can be accessed at: https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/index.html

ATTACHMENT A: INDEPENDENT EVALUATOR

Process

On February 8, 2018, the Indiana Department of Administration, on behalf of Indiana Family and Social Services Administration, issued a Request for Proposal (RFP) 18-061 to solicit responses from vendors experienced in performing large-scale health care program evaluations to provide an evaluation of Indiana's 1115 Substance Use Disorder (SUD) Waiver based upon the criteria set forth in the waiver's Special Terms and Conditions as approved by the Centers for Medicare and Medicaid Services (CMS). A total of five vendors submitted proposals. After evaluation, and a request for a best and final offer from respondents, Burns & Associates, Inc. (B&A) was selected to act as the independent evaluator based on scores determined by the state review team on April 23, 2018.

Vendor Qualifications

B&A has served as the evaluator for the Independent Assessment for Indiana's 1915(b) waiver for Hoosier Care Connect and has served as the External Quality Review Organization (EQRO) for Indiana since 2007. B&A has written an External Quality Review (EQR) report each year since that time which has been submitted to CMS. With this experience, the B&A team is very familiar with the Indiana Medicaid program, the managed care entities (MCEs) under contract with the Office of Medicaid Policy and Planning (OMPP), and the unique issues related to SUD treatment. The team that developed the Evaluation Design Plan has also worked on numerous EQRs, including a baseline study on the initiation and engagement of treatment for SUD for Indiana Medicaid as part of the EQR 2015 report.

Assuring Independence

As the State EQRO, B&A has already established its independence as required of all EQROs for this engagement. Additionally, in accordance with standard term and condition (STC) Attachment A – Developing the Evaluation Design, B&A has signed "No Conflict of Interest" statements regarding its work as the selected independent evaluator.

ATTACHMENT B: EVALUATION BUDGET

As part of the procurement process, respondents to RFP 18-061 were required to submit a best and final offer. Figure 1 summarizes the total amount agreed to between the State and B&A for each deliverable due to CMS. Figure 2 enumerates the proposed staffing, level of effort by labor category, and total budget. The total estimated cost of the Evaluation Design Plan is $1,196,180.

Figure 1. Cost Proposal Summary

Summary of Cost Proposal	Costs					Hours
Deliverable (Draft and Final)	Contract Year 1	Contract Year 2	Contract Year 3	Contract Year 4	Contract Year 5	Contract Years 1-5
2.4.1 Evaluation Design	$ 27,500.00					132.00
2.4.2 Quarterly Monitoring Reports - Q1		$ 57,325.00	$ 57,325.00			578.00
2.4.2 Quarterly Monitoring Reports - Q2	$ 57,325.00	$ 57,325.00	$ 57,325.00			867.00
2.4.2 Quarterly Monitoring Reports - Q3	$ 57,325.00	$ 57,325.00	$ 57,325.00			867.00
2.4.3 Annual Monitoring Reports		$ 105,595.00	$ 105,595.00	$ 105,595.00		1,620.00
2.4.4 Mid-Point Assessment		$ 121,830.00				621.00
2.4.5 Interim Evaluation Report		$ 132,485.00				663.00
2.4.6 Final Summative Evaluation Report					$ 138,990.00	693.00
Total for all Deliverables	**$ 142,150.00**	**$ 531,885.00**	**$ 277,570.00**	**$ 105,595.00**	**$ 138,990.00**	**6,041.00**

Total Bid Amount	$ 1,196,190.00

Blended Hourly Rate	$ 198.01

Figure 2. Proposed Staffing Costs and Hours Allocation

Position Title	Staff Member	Hourly Rate	Hours	Pct of Hours	Dollars
Project Director	Mark Podrazik	$ 250.00	897.00	15.1%	$224,250
Project Manager	Debbie Saxe	$ 230.00	986.00	16.6%	$226,780
Senior Data Scientist	Kara Morgan, PhD.	$ 255.00	106.00	1.8%	$27,030
Senior Policy Analyst	Kara Suter	$ 230.00	800.00	13.5%	$184,000
Data Manager	Ryan Sandhaus	$ 210.00	756.00	12.8%	$158,760
SAS Programmer	Jesse Eng, Akhilesh Pasupulati	$ 210.00	418.00	7.1%	$87,780
Consultant	Barry Smith	$ 190.00	261.00	4.4%	$49,590
Validation Testing Manager	Bruce Newcome	$ 180.00	50.00	0.8%	$9,000
Validation Testing Programmer	Business Analyst	$ 110.00	676.00	11.4%	$74,360
Business Analyst	Programmer	$ 80.00	200.00	3.4%	$16,000
Policy Analyst / WBE Subcontractor	Kristy Lawrance	$ 190.00	521.00	8.8%	$98,990
Data Analyst / Veteran Subcontractor	Daniel Traub	$ 180.00	148.00	2.5%	$26,640
Focus Group Facilitator / Veteran Subcontractor II	Fred Bingle	$ 125.00	104.00	1.8%	$13,000
			5923.00	**100.0%**	**$1,196,180**

ATTACHMENT C: TIMELINE AND MILESTONES

As part of the procurement process, respondents to RFP 18-061 were required to submit a work plan, including major tasks and milestones to complete the scope of work. B&A submitted a work plan which has been agreed to by the FSSA team. The work plan is divided into Sections A, B and C and has 31 tasks. Following is a high-level summary of each section of the work plan.

- Section A, Project Initiation and Ongoing Project Management, includes Tasks 1, 2 and 3.

- Section B, Ongoing Tasks to Support Deliverables to CMS, includes Tasks 4 through 16. This is where most of the work will occur. Included in these tasks are data analytics, measure development, computing measure results ongoing, and specific focus studies related to aspects of the FSSA SUD Implementation that will be important to the overall waiver evaluation.

- Section C, Prepare Deliverable to CMS, include Tasks 17 through 31 representing each of the deliverables to CMS. It should be noted that B&A intends to build upon the cumulative work captured to date at the time that each CMS deliverable is due.

A listing of the 31 tasks with the timeframe anticipated to perform each task appears in Figure 1.

Figure 1. Proposed Timeline and Milestones

Task Number	Task Name	Contract Year(s)	Estimated Timeframe	CMS Due Date
SECTION A: PROJECT INITIATION AND ONGOING PROJECT MANAGEMENT				
1	Kickoff Meeting	Year 1	1 month	
2	Project Management	Years 1 through 4	Weekly	
3	Obtain and Read in Data for Project	Years 1 through 4	Monthly	
SECTION B: ONGOING TASKS TO SUPPORT DELIVERABLES TO CMS				
4	Introductory Meetings with Stakeholders	Year 1	2 Months	
5	Ongoing Meetings with Stakeholders	Years 1 through 4	1 Month	
6	Track and Maintain Library of Actions within Indiana and Other States	Years 1 through 4	Weekly	
7	Build Databook of Utilization, Members, Provider Network	Years 1 and 2	7 Months	
8	Develop Measures	Year 1	3 Months	
9	Compute Measures and Ongoing Peer Review	Years 1 through 4	3 Months	
10	Systems Testing	Years 1 and 2	4 Months	
11	Focus Study: Review Gold Card Program	Year 1	2 Months	
12	Focus Study: Review Authorization Criteria	Year 1	3 Months	
13	Focus Study: Revisions to Assessment Tools	Years 1 and 2	6 Months	
14	Focus Study: Care Management	Year 2	6 Months	
15	Focus Study: INSPECT	Year 2	6 Months	
16	Focus Study: Reimbursement	Year 2	3 Months	
SECTION C: PREPARE DELIVERABLES TO CMS				
17 - draft	Develop Evaluation Design - draft	Year 1	6 Months	7/31/2018
17 - final	Develop Evaluation Design - final	Year 1	6 Months	60 days after CMS feedback
18	Prepare Quarterly Report DY4 Q2	Year 1	4 Months	8/31/2018
19	Prepare Quarterly Report DY4 Q3	Year 1	4 Months	11/30/2018
20	Prepare Quarterly Report DY5 Q1	Year 2	4 Months	9/30/2019
21	Prepare Quarterly Report DY5 Q2	Year 2	4 Months	10/31/2019
22	Prepare Quarterly Report DY5 Q3	Year 2	4 Months	11/30/2019
23	Prepare Quarterly Report DY6 Q1	Year 3	4 Months	5/31/2020
24	Prepare Quarterly Report DY6 Q2	Year 3	4 Months	8/31/2020
25	Prepare Quarterly Report DY6 Q3	Year 3	4 Months	11/30/2020
26	Prepare Annual Report DY4	Years 1 to 2	6 Months	8/30/2019
27	Prepare Annual Report DY5	Years 2 to 3	6 Months	3/31/2020
28	Prepare Annual Report DY6	Years 3 to 4	6 Months	3/31/2021
29	Prepare Mid Point Assessment	Year 2	8 Months	1/31/2020
30 - draft	Prepare Interim Evaluation - draft	Year 2	6 Months	1/31/2020
30 - final	Prepare Interim Evaluation - final	Year 2	6 Months	60 days after CMS feedback
31 - draft	Prepare Summative Evaluation - draft	Years 4 and 5	10 Months	7/31/2022
31 - final	Prepare Summative Evaluation - final	Years 4 and 5	10 Months	60 days after CMS feedback

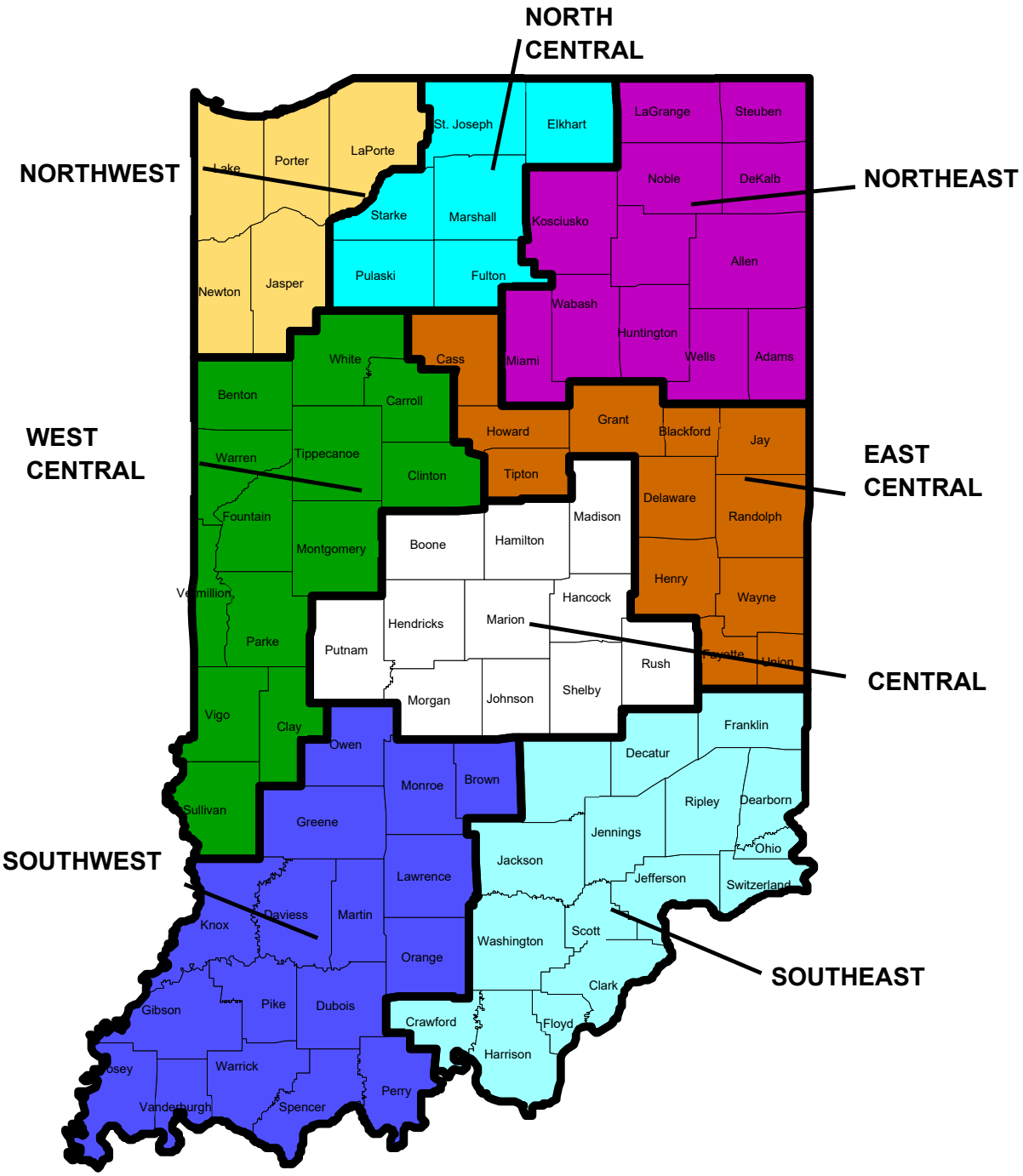
ATTACHMENT D: SUD INDICATOR FLAG DEVELOPED BY FSSA WITH BURNS & ASSOCIATES

Category	Code	Description
ICD-9 Diagnosis		
	303	Alcohol dependence syndrome
	304	Drug dependence
	305	Nondependent abuse of drugs
ICD-10 Diagnosis		
	F10	Alcohol related disorders
	F11	Opioid related disorders
	F12	Cannabis related disorders
	F13	Sedative, hypnotic, or anxiolytic related disorders
	F14	Cocaine related disorders
	F15	Other stimulant related disorders
	F16	Hallucinogen related disorders
	F18	Inhalant related disorders
	F19	Other psychoactive substance related disorders
Revenue Codes		
	116	Detox/Private Room
	126	Detox/Two Beds
	136	Detox/Three to Four Beds
	146	Detox/Deluxe Private Room
	156	Detox/Ward
	906	Behavioral Health Treatment-Intensive Outpatient Services Chemical Dependency
	944	Other Therapeutic Services - Drug Rehabilitation
	945	Other Therapeutic Services - Alcohol Rehabilitation
	1002	Behavioral Health Accomodation Residential Chemical Dependency
ICD-9 Procedure Codes		
	94.61	Alcohol rehabilitation
	94.62	Alcohol detoxification
	94.63	Alcohol rehabilitation and detoxification
	94.64	Drug rehabilitation
	94.65	Drug detoxification
	94.66	Drug rehabilitation and detoxification
	94.67	Combined alcohol and drug rehabilitation
	94.68	Combined alcohol and drug detoxification
	94.69	Combined alcohol and drug rehabilitation and detoxification
ICD-10 Procedure Codes		
	HZ2xx	Detoxification Services
	HZ3xx	Individual Counseling
	HZ4xx	Group Counseling
	HZ5xx	Individual Psychotherapy
	HZ6xx	Family Counseling
	HZ8xx	Medication Management
	HZ9xx	Pharmacotherapy

Category	Code	Description
HCPCS/CPT Procedure Codes		
	G0396	Alcohol and/or substance abuse (other than tobacco) structured assessment, 15-30 minutes
	G0397	Alcohol and/or substance abuse (other than tobacco) structured assessment, >30 minutes
	G0443	Behavioral counseling for alcoholic misuse, 15 mins
	H0001	Alcohol and/or drug assessment
	H0004	Behavioral health counseling and therapy, per 15 mins
	H0005	Alcohol and/or drug services; Group counseling by a clinician
	H0006	Alcohol and/or drug services; case management
	H0007	Alcohol and/or drug services; crisis intervention (outpatient)
	H0008	Alcohol and/or drug services; sub-acute detox (hospital inpatient)
	H0009	Alcohol and/or drug services; Acute detox (hospital inpatient)
	H0010	Alcohol and/or drug services; Sub-acute detox (residential addiction program inpatient)
	H0011	Alcohol and/or drug services; acute detox (residential addiction program inpatient)
	H0012	Alcohol and/or drug services; Sub-acute detox (residential addiction program outpatient)
	H0013	Alcohol and/or drug services; acute detox (residential addiction program outpatient)
	H0014	Alcohol and/or drug services; ambulatory detox
	H0015	Alcohol and/or drug services; intensive outpatient
	H0016	Alcohol and/or drug services; medical intervention in ambulatory setting
	H0017	Behavioral health; residential wout room & board
	H0018	Behavioral health; short-term residential
	H0019	Behavioral health; long-term residential
	H0020	Alcohol and/or drug services; methadone administration and/or service (provisions of the drug by a licensed program)
	H0022	Alcohol and/or drug interven
	H2034	Alcohol and/or Drug Service, Halfway House, per diem
	H2035	Alcohol and/or drug treatment program, per hour
	H2036	Alcohol and/or drug treatment program, per diem
	J0572	BUPRENORPHINE/NALOXONE, <= 3 mg
	J0573	BUPRENORPHINE/NALOXONE, 3- 6 mg
	J0574	BUPRENORPHINE/NALOXONE, 6-10 mg
	J0575	BUPRENORPHINE/NALOXONE, > 10 mg
	J0592	Buprenorphine hydrochloride
	J2315	Naltrexone, depot form
	T1006	Alcohol and/or substance abuse services, family/couple counseling
	T1012	Alcohol and/or substance abuse services, skill development

Category	Code	Description
Generic Product Codes - Pharmacy		
		Vivitrol
		Suboxone
		Subutex
		Acamprosate
		Disulfram
		Methadone (methadose)
DRG Codes		
	770	Drug & Alcohol Abuse or Dependence. Left Against Medical Advise
	772	Alcohol & Drug Dependence with Rehab or Rehab/Detox Therapy
	773	Opioid Abuse & Dependence
	774	Cocaine Abuse & Dependence
	775	Alcohol Abuse & Dependence
	776	Other Drug Abuse & Dependence

Appendix B – Map of Indiana's 92 Counties to FSSA's Eight Regions



Appendix C – Interview Questions to Providers

Outreach to Provider Representatives
Indiana 1115 SUD Summative Evaluation

When the State applied for the Substance Use Disorder (SUD) waiver to gain additional state authorities and additional federal matching dollars, it made assurances to the Centers for Medicare and Medicaid (CMS) that it would have independent evaluations conducted throughout the waiver period. Burns & Associates, a Division of Health Management Associates (HMA-Burns) was hired to conduct these evaluations. Two of the three specific deliverables that HMA-Burns is responsible for have been completed:

- An ***Interim Evaluation***. This is required by CMS to assess if meaningful change is occurring with respect to the waiver's goals. In this report, we looked more at trends to date across multiple measures. The approved report, originally delivered to CMS in October 2019 and finalized in March 2020 after feedback from CMS, is available on the CMS website here: https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/in-healthy-indiana-plan-final-sud-interim-eval-rpt-07092020.pdf
- A ***Mid-Point Assessment***. The Mid-Point Assessment is meant to assess the State's progress-to-date on waiver goals. HMA-Burns was specifically asked to obtain feedback from stakeholders related to what they perceive to be working/not working, what has improved/what still needs to be improved, and the greatest successes/greatest challenges thus far in the waiver. The approved report, originally delivered in January 2020 and finalized in May 2020 after feedback from CMS, is available on the CMS website here: https://www.medicaid.gov/medicaid/section-1115-demonstrations/downloads/in-healthy-indiana-plan-final-sud-mid-point-assessment-rpt-05292020.pdf

The reason for our outreach to you is to obtain feedback for the final deliverable called the ***Summative Evaluation***. Indiana has received approval to renew its SUD waiver for the period January 1, 2021 – December 31, 2025. However, a Summative Evaluation of the first demonstration period from February 1, 2018 – December 31, 2020, is due to CMS by June 30, 2022. In this Summative Evaluation, HMA-Burns will examine the results over multiple years for all measures that CMS and the State have defined as a way to assess if meaningful change has occurred. HMA-Burns will also obtain feedback from stakeholders related to what they perceive to have/have not worked, what improved/what still needs to be improved, and the greatest successes/greatest challenges in the waiver period. We greatly appreciate that your organization has agreed to provide feedback to the HMA-Burns team to assist in completing this portion of the evaluation.

Providers have three options to offer feedback:

1. *Complete the online survey*. This is a 11-question survey where you will be asked to make a choice from a pre-determined list of responses. We expect that this survey will take no more than 15 minutes to complete. Other than indicating the type of services that you offer, you can remain anonymous when completing this survey if you choose.
2. *Participate in a 1:1 interview with the evaluation team*. HMA-Burns team members will lead a facilitated discussion. The team members assigned to your organization are Debbie Saxe and Mark Podrazik. We ask that you review the questions on the next page that will be covered in the discussion so that you have had an opportunity to think through your responses. All feedback provided will be verbal and will not be attributed to an individual or organization by name.
3. *Both*. Providers may choose to complete the online survey and participate in a 1:1 interview.

Questions for the 1:1 Interview

1. Thinking back to the initial implementation of the waiver in early CY2018 through CY 2020, what is your opinion on the guidance provided to you by FSSA related to the waiver and how this impacted your participation in providing SUD services to Medicaid beneficiaries? In hindsight, could FSSA have done more related to some items? What specifically?

2. Is there anything that you believe the FSSA could still do to improve guidance related to SUD waiver implementation efforts?

3. What do you think about the adequacy of the provider network across the spectrum of ASAM levels of care? Were there improvements over the course of the initial waiver period? If you think improvements are needed, where specifically (e.g., certain ASAM levels, certain regions of the state)?

4. What is your opinion of the FSSA changes to the prior authorization process and use of a single form? Has this made prior authorization easier and more understandable? If you think improvements are needed, what specifically?

5. Did you or anyone on your staff attend any ASAM trainings sponsored by the FSSA? If yes, what was the last training you attended? Did you find the trainings helpful?

6. Other than the ASAM training, what is your opinion of other communications that you receive from the FSSA or the MCEs that you have contracts with about SUD services and processes? Examples could include provider bulletins or other trainings such as on billing procedures. What, if anything, has been most helpful? If you think improvements are needed, where specifically?

7. How would you assess your interactions with the MCEs regarding SUD services for contracting, authorization or billing today? How does this compare to the early period of the waiver in CY2018? Are some MCEs easier to work with than others? If there are differences, what are they?

8. How would you assess your interactions with the MCEs regarding care coordination for members today? Do the MCEs assist you with coordinating care for members? How does this compare to the period in CY2018? If you think improvements are needed, where specifically?

9. Do you perceive that there is still confusion on the part of members about covered services for SUD? If yes, what specifically?

10. What, in your opinion, has improved in the delivery of treatment for SUD in CY2020 compared to CY2018?

11. Has any particular item gotten worse during the initial waiver period?

12. Are there unexpected outcomes (positive or negative) that you can cite that resulted from this waiver?

13. Do you have recommendations to the evaluators related to the delivery of treatment for SUD that you would like communicated in the Summative Evaluation?

Appendix D – Online Survey Tool to Providers

Indiana 1115 SUD Summative Evaluation – Online Outreach to Provider Representatives

Your feedback is greatly appreciated. Please note that in the Final Evaluation report delivered to CMS and the State, individual provider names are never mentioned.

Provider Name: [Optional fillable]

Services provided by your organization. Check all that apply.

Opioid Treatment Program	❒
Early Intervention (ASAM 0.5)	❒
Outpatient Services (ASAM 1.0)	❒
Intensive Outpatient Services (ASAM 2.1)	❒
Partial Hospitalization (ASAM 2.5)	❒
Residential: Clinically Managed Low-Intensity (ASAM 3.1)	❒
Residential: Clinically Managed High-Intensity (ASAM 3.5)	❒
Medically Monitored Intensive Inpatient Services (ASAM 3.7)	❒
Medically Managed Intensive Inpatient (ASAM 4.0)	❒
Addiction Recovery Management Services	❒
Supportive Housing Services	❒
Medication Assisted Treatment	❒

Region(s) of the state where you offer services organization.
The counties assigned to each region are shown to the right. Check all that apply.

Northwest	❒ Lake, Porter, LaPorte, Newton, Jasper
North Central	❒ St. Joseph, Elkhart, Starke, Marshall, Pulaski, Fulton
Northeast	❒ LaGrange, Steuben, Noble, DeKalb, Kosciusko, Whitley, Allen, Miami, Wabash, Huntington, Wells, Adams
West Central	❒ Benton, White, Carroll, Warren, Tippecanoe, Clinton, Fountain, Montgomery, Vermillion, Parke, Vigo, Clay, Sullivan
Central	❒ Boone, Hamilton, Madison, Putnam, Hendrick, Marion, Hancock, Morgan, Johnson, Shelby, Rush
East Central	❒ Cass, Howard, Tipton, Grant, Blackford, Jay, Delaware, Randolph, Henry, Wayne Fayette, Union
Southwest	❒ Owen, Monroe, Brown, Greene, Knox, Daviess, Martin, Lawrence, Orange, Gibson, Pike, Dubois, Posey, Vanderburgh, Warrick, Spencer, Perry
Southeast	❒ Bartholomew, Decatur, Franklin, Jackson, Jennings, Ripley, Dearborn, Ohio, Jefferson, Switzerland, Washington, Scott, Clark, Crawford, Harrison, Floyd

Medicaid Managed Care Entities (MCEs) that you contract with. Check all that apply.

Anthem	❒
CareSource	❒
MDwise	❒
MHS (Managed Health Services)	❒
UHC (United Healthcare)	❒

Questions for the Online Survey

1. Thinking back to FSSA's initial implementation of these SUD services in early CY2018 through CY 2020, what is your opinion on the guidance provided to you by FSSA and how this impacted your participation in providing SUD services to Medicaid beneficiaries?
    a. Please select the response that most closely matches your opinion of the guidance.
        - Very helpful and encouraged participation/provision of SUD services ❒
        - Somewhat helpful and supported participation/provision of SUD services ❒
        - Not helpful but still able to participate/provide SUD services ❒
        - Not helpful and made it difficult to participate/provide SUD services ❒
        - Caused my organization to stop providing some SUD services ❒
        - Caused my organization to elect to not provide or expand some SUD services ❒

    b. In hindsight, could FSSA have done more related to some items? ❒Yes ❒ No

    c. If yes, what specifically? Select all that apply.
        - Provider Bulletins ❒
        - Online Training ❒
        - In Person Training ❒
        - Meetings with State Staff ❒
        - Meetings with MCEs ❒

2. Is there anything that you believe the FSSA could still do to improve guidance related to SUD service delivery? ❒Yes ❒ No
    a. [optional] If yes, what specifically? [fillable]

3. Is the provider network across the spectrum of ASAM levels of care adequate? ❒Yes ❒ No
    a. Were there improvements from 2018 to the end of 2020? ❒Yes ❒ No
    b. If you think improvements are needed in the regions where you serve clients, for which services? Select all that apply.

        - Opioid Treatment Program ❒
        - Early Intervention (ASAM 0.5) ❒
        - Outpatient Services (ASAM 1.0) ❒
        - Intensive Outpatient Services (ASAM 2.1) ❒
        - Partial Hospitalization (ASAM 2.5) ❒
        - Residential: Clinically Managed Low-Intensity (ASAM 3.1) ❒
        - Residential: Clinically Managed High-Intensity (ASAM 3.5) ❒
        - Medically Monitored Intensive Inpatient Services (ASAM 3.7) ❒
        - Medically Managed Intensive Inpatient (ASAM 4.0) ❒
        - Addiction Recovery Management Services ❒
        - Supportive Housing Services ❒
        - Medication Assisted Treatment ❒

4. What is your opinion of the FSSA changes to the prior authorization process and use of a single form? ❒Helpful ❒ Somewhat Helpful ❒ Not Helpful
    a. Has this made prior authorization easier and more understandable? ❒Yes ❒ No
    b. [optional] If you think improvements are needed, where specifically? [fillable]

5. Did you or anyone on your staff attend any ASAM trainings sponsored by FSSA? ❒Yes ❒ No

6. Other than the ASAM training, what is your opinion of other communications that you receive from the FSSA or the Medicaid MCEs that you have contracts with about SUD services and processes? Examples could include provider bulletins or other trainings such as on billing procedures.
   ❒Helpful ❒ Somewhat Helpful ❒ Not Helpful

   a. [optional] What, if anything, has been most helpful? [fillable]
   b. [optional] If you think improvements are needed, where specifically? [fillable]

7. How would you assess your interactions with the MCEs regarding SUD services for contracting, authorization or billing <u>today</u>? ❒ Easy ❒ Neutral ❒ Somewhat Difficult ❒ Difficult
   a. Has this improved since the initial implementation in 2018? ❒Yes ❒No
   b. If you contract with more than one MCE, are some MCEs easier to work with than others? ❒Yes ❒No ❒I only contract with one MCE
   c. What areas have you had difficulties with any MCE? Check all that apply.
      ❒ Contracting
      ❒ Authorizations
      ❒ Billing
      ❒ None of the above

8. Do the MCEs assist you with coordinating care for members? Please check the box that best applies.

Anthem	❒ Yes	❒ No
CareSource	❒ Yes	❒ No
MDwise	❒ Yes	❒ No
MHS	❒ Yes	❒ No
UHC	❒ Yes	❒ No

   a. [optional] If you think improvements are needed, where specifically? [fillable]

9. Do you perceive that there is confusion on the part of Medicaid members about covered services for SUD? ❒Yes ❒ No

   [optional] If yes, what specifically? [fillable]

10. What do you perceive is the greatest strength or benefit of Indiana Medicaid's SUD service delivery model?
    [fillable]

11. What do you perceive is the area that there could be the greatest improvement in Indiana Medicaid's SUD service delivery model
    [fillable]

Appendix E – Interview Questions to Beneficiaries

Indiana 1115 SUD Waiver Summative Evaluation Member Questionnaire

Hello. Our company, Health Management Associates, was hired by the State of Indiana to review services for people seeking treatment for alcohol and drugs. The State is trying to expand services available for treatment throughout Indiana. The federal government is providing money to Indiana to help them do that. In return, the federal government wants to hear from citizens of Indiana getting treatment and providers delivering treatment to see how that is going.

We wanted to ask you four questions to see what you think. This will take about 5 minutes for you to complete the questionnaire. **You do not need to give us your name or other personal details on the survey**. Your service provider will be giving you a link to submit this survey to us online. We wanted you to see this hard copy of the survey so that you know in advance the questions that you will be asked.

Place a ☑ in the boxes below that best matches your answer to each question.

1. How did you find out about where you could get treatment? Please check all that apply to you.
   - a. Family member ❒
   - b. Friend ❒
   - c. Sponsor ❒
   - d. Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) meetings ❒
   - e. Healthcare provider (doctor, nurse, physician assistant, hospital, clinic) ❒
   - f. Court/jail/prison/law enforcement/parole office ❒
   - g. Website ❒
   - h. Homeless shelter ❒

2. Was it hard to figure out where to get treatment? ❒Yes ❒ No

If you answered Yes, please check all of the reasons why that apply to you.

   - a. Could not find a provider near my home ❒
   - b. Found a provider, but they have a waiting list ❒
   - c. Provider won't take Medicaid ❒

3. What do you think would help you or others who are seeking treatment about how they can find providers to help them? Please check all that you think would help.
   - a. Social media ❒
   - b. Radio or television ❒
   - c. Billboards ❒
   - d. AA/NA meeting locations ❒
   - e. Healthcare provider (doctor, nurse, physician assistant, hospital, clinic) ❒
   - f. Court/jail/prison/law enforcement/parole office ❒
   - g. Targeted outreach (e.g., schools) ❒
   - h. Government offices (e.g., WIC, welfare, county) ❒
   - i. Homeless shelter ❒
   - ❒

4. Are there services that you need but you cannot find help for? Please provide feedback for all services that apply to you and how much of a problem it is to find the type of provider.

	Type of provider	Big Problem	Small Problem	No Problem	Doesn't Apply to Me
a.	Primary Care Doctor	❑	❑	❑	❑
b.	Psychiatrist or Psychologist	❑	❑	❑	❑
c.	Counselor	❑	❑	❑	❑
e.	Residential treatment	❑	❑	❑	❑
f.	Treatment in an office setting (not residential)	❑	❑	❑	❑
g.	Methadone	❑	❑	❑	❑
h.	Suboxone/Subutex	❑	❑	❑	❑
i.	Transportation to/from services	❑	❑	❑	❑

Questions for Web-based focus group or individual sessions with beneficiaries

Introductory language for session:

Hello. I am xxxxxxx. I am from a company called Health Management Associates. Our company was hired by the State of Indiana to review services for people seeking treatment for alcohol and drugs. The State is trying to expand services available for treatment throughout Indiana. The federal government is providing money to Indiana to help them do that. In return, the federal government wants to hear from citizens of Indiana getting treatment and providers delivering treatment to see how that is going.

We wanted to ask you just a few questions to see what you think. You do not have to give us your name or other personal details. Our questions are more about how you found out about treatment. When we submit our report, we will not put anyone's name in the report. It is all anonymous.

1. How did you find out about where you could get treatment? Was it hard to figure out?

2. What do you think would help you or others who are seeking treatment about how they can find providers to help them?

3. Are there services that you need but you cannot find help for? Can you provide examples?

We greatly appreciate that you have agreed to talk to us.

Appendix F – Interview Questions to Managed Care Entities

Facilitated Discussion with MCE Representatives for SUD Waiver Summative Evaluation

Meeting via Zoom March 29, 2022 (insert time here)

As the State's independent evaluator, Burns & Associates, a Division of Health Management Associates (HMA-Burns) will be completing the Summative Evaluation for Indiana's SUD first demonstration period from February 2018 through December 2020. This evaluation is due to CMS at the end of June 2022.

A requirement for the Summative Evaluation is to obtain feedback from stakeholders specifically related to what they perceive to have/have not worked, what improved/what still needs to be improved, and the greatest successes/greatest challenges in the waiver.

To that end, Mark Podrazik and Debbie Saxe from the HMA-Burns team will lead a facilitated discussion. We ask that you review the questions below to consider (a) who would be appropriate representatives from your organization to participate in this focus group and (b) be prepared to offer responses to these questions. All feedback provided will be verbal and will not be attributed to an individual or an MCE by name.

1. Thinking back to the initial implementation of the waiver in early CY2018 and continuing through the end of this first demonstration at the end of CY2020, what is your opinion on the guidance provided to you by FSSA related to your (the MCE's) responsibilities for implementing waiver activities? In hindsight, could FSSA have done more related to some items? What specifically?

2. Is there anything that you believe the FSSA could still do to improve guidance related to SUD waiver implementation efforts?

3. Do you perceive that the expectations of the MCEs related to the SUD waiver have changed over time? If yes, how so?

4. What is your opinion of the adequacy of the provider network today across the spectrum of ASAM levels of care? Were there improvements over the duration of the waiver demonstration period? If you think improvements are needed, where specifically (e.g., certain ASAM levels, certain regions of the state)?

5. How would you assess provider compliance with contracting, authorization or billing rules today? How does this compare to the early period of the demonstration (such as CY2018)?

6. Do you perceive that there is still confusion on the part of providers about covered services for SUD? If yes, what specifically?

7. Do you perceive that there is still confusion on the part of providers about processes for SUD (e.g., authorization submissions, billing)? If yes, what specifically?

8. What, in your opinion, has improved in the delivery of treatment for SUD from the time period of the end of CY2020 compared to CY2018?

9. Has any particular item gotten worse during the waiver demonstration period?

10. Are there unexpected outcomes (positive or negative) that you can cite that resulted from this waiver?

11. Do you have recommendations to the evaluators related to the delivery of treatment for SUD that you would like communicated in the Summative Evaluation?

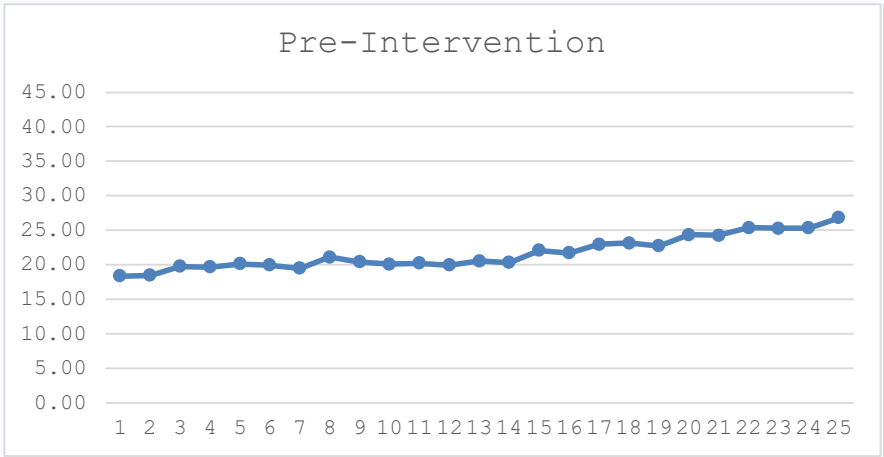
Appendix G – Statistical Tests on Measures

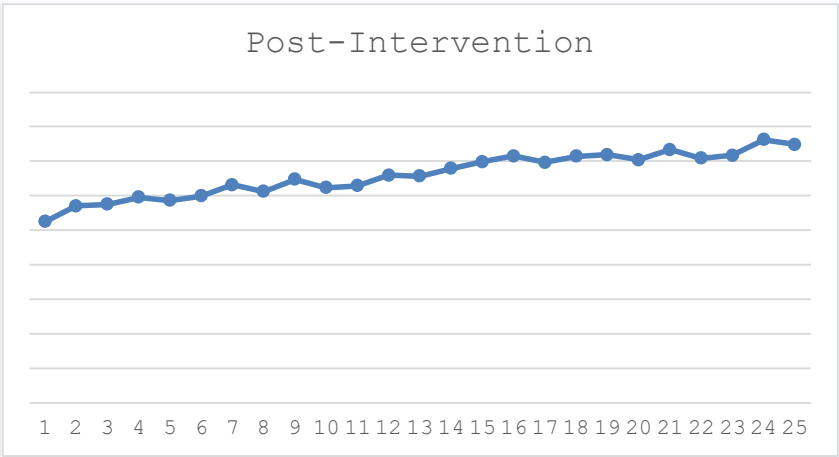
CMS Metric #6 - Any SUD Treatment per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

Pre-Intervention					Post-Intervention				
OUTCOME	time	t	x	tx	OUTCOME	time	t	x	tx
18.36	201601	1	0	0	26.24	201802	26	1	1
18.45	201602	2	0	0	28.49	201803	27	1	2
19.73	201603	3	0	0	28.75	201804	28	1	3
19.64	201604	4	0	0	29.78	201805	29	1	4
20.12	201605	5	0	0	29.29	201806	30	1	5
19.91	201606	6	0	0	29.94	201807	31	1	6
19.48	201607	7	0	0	31.56	201808	32	1	7
21.08	201608	8	0	0	30.61	201809	33	1	8
20.36	201609	9	0	0	32.37	201810	34	1	9
20.05	201610	10	0	0	31.15	201811	35	1	10
20.21	201611	11	0	0	31.41	201812	36	1	11
19.93	201612	12	0	0	32.94	201901	37	1	12
20.53	201701	13	0	0	32.80	201902	38	1	13
20.27	201702	14	0	0	33.92	201903	39	1	14
22.04	201703	15	0	0	34.90	201904	40	1	15
21.68	201704	16	0	0	35.72	201905	41	1	16
22.92	201705	17	0	0	34.80	201906	42	1	17
23.14	201706	18	0	0	35.71	201907	43	1	18
22.68	201707	19	0	0	35.92	201908	44	1	19
24.34	201708	20	0	0	35.18	201909	45	1	20
24.23	201709	21	0	0	36.67	201910	46	1	21
25.34	201710	22	0	0	35.42	201911	47	1	22
25.26	201711	23	0	0	35.83	201912	48	1	23
25.29	201712	24	0	0	38.16	202001	49	1	24
26.79	201801	25	0	0	37.40	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	0.1116	0.0007
post-intervention trend	0.4159	<.0001
pre-intervention trend	0.3042	<.0001





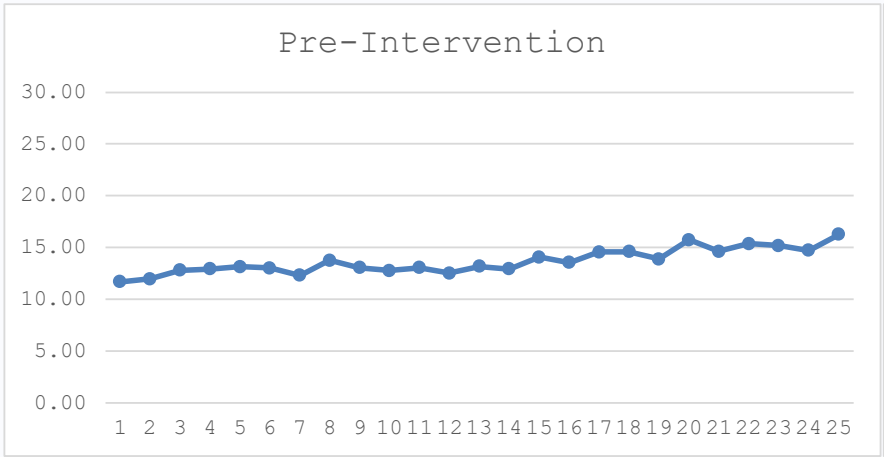
CMS Metric #8 - Outpatient Services per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

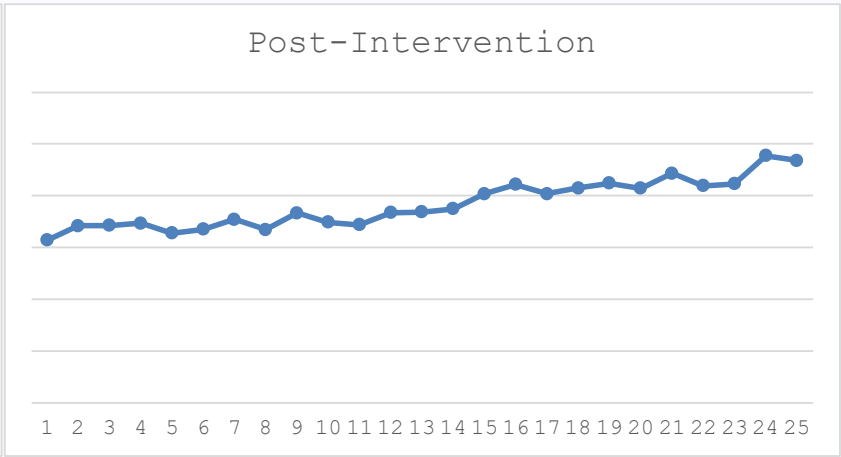
Pre-Intervention				
OUTCOME	time	t	x	tx
11.66	201601	1	0	0
11.96	201602	2	0	0
12.80	201603	3	0	0
12.92	201604	4	0	0
13.12	201605	5	0	0
13.00	201606	6	0	0
12.28	201607	7	0	0
13.75	201608	8	0	0
13.02	201609	9	0	0
12.74	201610	10	0	0
13.04	201611	11	0	0
12.51	201612	12	0	0
13.17	201701	13	0	0
12.91	201702	14	0	0
14.06	201703	15	0	0
13.53	201704	16	0	0
14.56	201705	17	0	0
14.59	201706	18	0	0
13.87	201707	19	0	0
15.71	201708	20	0	0
14.61	201709	21	0	0
15.35	201710	22	0	0
15.17	201711	23	0	0
14.70	201712	24	0	0
16.26	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
15.71	201802	26	1	1
17.09	201803	27	1	2
17.12	201804	28	1	3
17.33	201805	29	1	4
16.37	201806	30	1	5
16.73	201807	31	1	6
17.69	201808	32	1	7
16.71	201809	33	1	8
18.33	201810	34	1	9
17.43	201811	35	1	10
17.18	201812	36	1	11
18.36	201901	37	1	12
18.43	201902	38	1	13
18.74	201903	39	1	14
20.17	201904	40	1	15
21.08	201905	41	1	16
20.17	201906	42	1	17
20.73	201907	43	1	18
21.20	201908	44	1	19
20.70	201909	45	1	20
22.16	201910	46	1	21
20.96	201911	47	1	22
21.13	201912	48	1	23
23.85	202001	49	1	24
23.39	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	0.1482	<.0001
post-intervention trend	0.2917	<.0001
pre-intervention trend	0.1435	<.0001





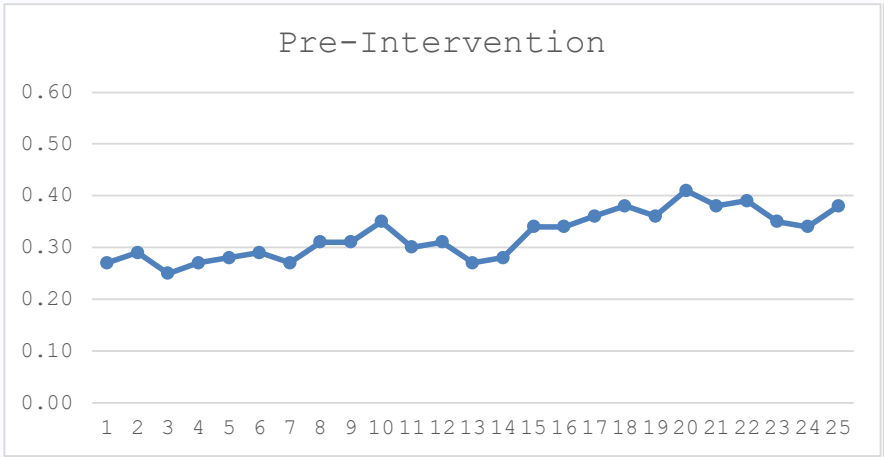
CMS Metric #9 - Intensive Outpatient and Partial Hospitalization Services per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

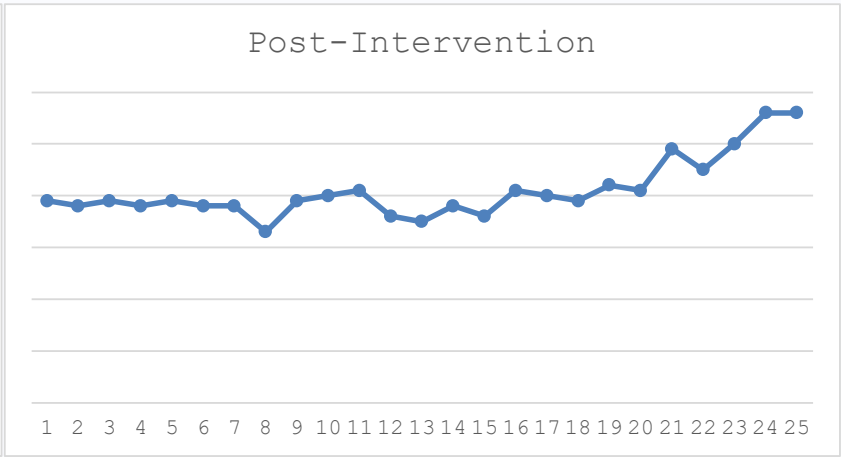
Pre-Intervention				
OUTCOME	time	t	x	tx
0.27	201601	1	0	0
0.29	201602	2	0	0
0.25	201603	3	0	0
0.27	201604	4	0	0
0.28	201605	5	0	0
0.29	201606	6	0	0
0.27	201607	7	0	0
0.31	201608	8	0	0
0.31	201609	9	0	0
0.35	201610	10	0	0
0.30	201611	11	0	0
0.31	201612	12	0	0
0.27	201701	13	0	0
0.28	201702	14	0	0
0.34	201703	15	0	0
0.34	201704	16	0	0
0.36	201705	17	0	0
0.38	201706	18	0	0
0.36	201707	19	0	0
0.41	201708	20	0	0
0.38	201709	21	0	0
0.39	201710	22	0	0
0.35	201711	23	0	0
0.34	201712	24	0	0
0.38	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
0.39	201802	26	1	1
0.38	201803	27	1	2
0.39	201804	28	1	3
0.38	201805	29	1	4
0.39	201806	30	1	5
0.38	201807	31	1	6
0.38	201808	32	1	7
0.33	201809	33	1	8
0.39	201810	34	1	9
0.40	201811	35	1	10
0.41	201812	36	1	11
0.36	201901	37	1	12
0.35	201902	38	1	13
0.38	201903	39	1	14
0.36	201904	40	1	15
0.41	201905	41	1	16
0.40	201906	42	1	17
0.39	201907	43	1	18
0.42	201908	44	1	19
0.41	201909	45	1	20
0.49	201910	46	1	21
0.45	201911	47	1	22
0.50	201912	48	1	23
0.56	202001	49	1	24
0.56	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	0.0005	0.7456
post-intervention trend	0.0056	<.0001
pre-intervention trend	0.0052	<.0001





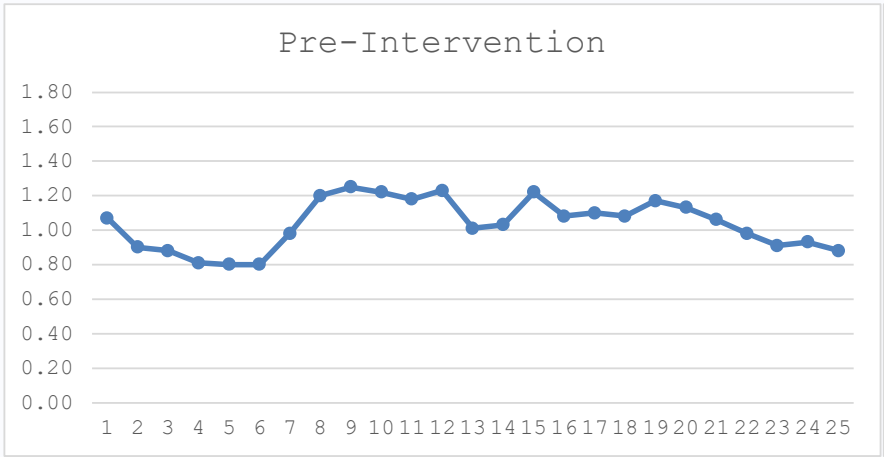
CMS Metric #10 - Residential and Inpatient Services per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

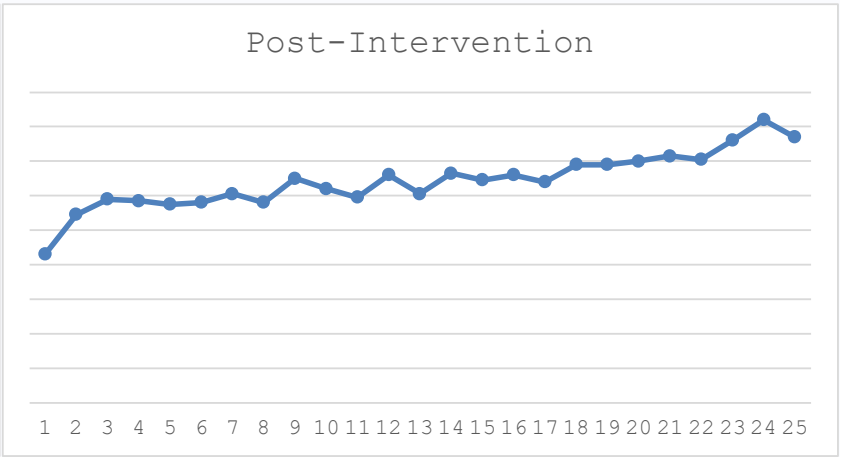
Pre-Intervention				
OUTCOME	time	t	x	tx
1.07	201601	1	0	0
0.90	201602	2	0	0
0.88	201603	3	0	0
0.81	201604	4	0	0
0.80	201605	5	0	0
0.80	201606	6	0	0
0.98	201607	7	0	0
1.20	201608	8	0	0
1.25	201609	9	0	0
1.22	201610	10	0	0
1.18	201611	11	0	0
1.23	201612	12	0	0
1.01	201701	13	0	0
1.03	201702	14	0	0
1.22	201703	15	0	0
1.08	201704	16	0	0
1.10	201705	17	0	0
1.08	201706	18	0	0
1.17	201707	19	0	0
1.13	201708	20	0	0
1.06	201709	21	0	0
0.98	201710	22	0	0
0.91	201711	23	0	0
0.93	201712	24	0	0
0.88	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
0.86	201802	26	1	1
1.09	201803	27	1	2
1.18	201804	28	1	3
1.17	201805	29	1	4
1.15	201806	30	1	5
1.16	201807	31	1	6
1.21	201808	32	1	7
1.16	201809	33	1	8
1.30	201810	34	1	9
1.24	201811	35	1	10
1.19	201812	36	1	11
1.32	201901	37	1	12
1.21	201902	38	1	13
1.33	201903	39	1	14
1.29	201904	40	1	15
1.32	201905	41	1	16
1.28	201906	42	1	17
1.38	201907	43	1	18
1.38	201908	44	1	19
1.40	201909	45	1	20
1.43	201910	46	1	21
1.41	201911	47	1	22
1.52	201912	48	1	23
1.64	202001	49	1	24
1.54	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	0.0173	0.0003
post-intervention trend	0.0201	<.0001
pre-intervention trend	0.0028	0.3755





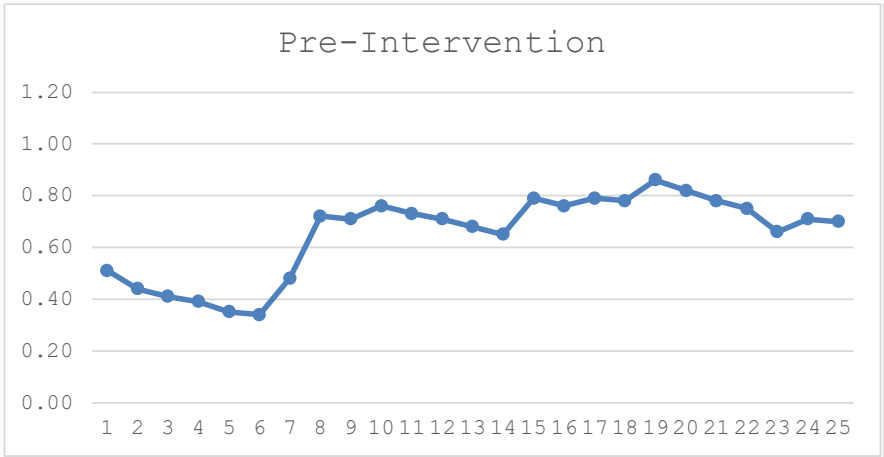
CMS Metric #11 - Withdrawal Management per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

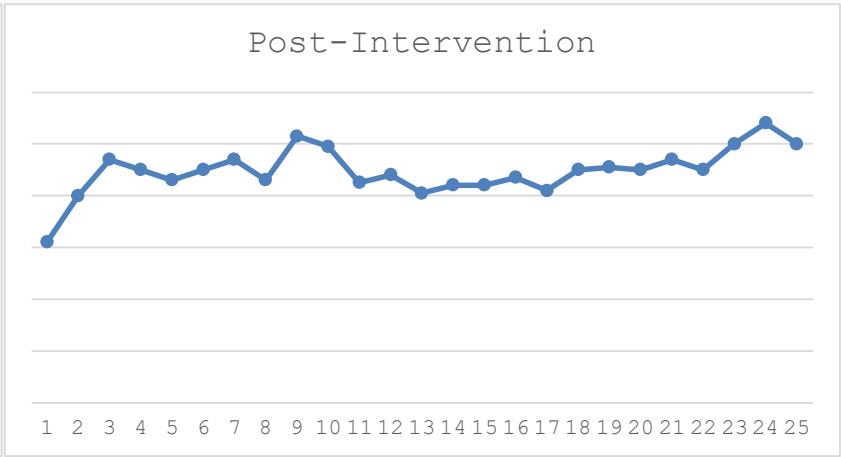
Pre-Intervention				
OUTCOME	time	t	x	tx
0.51	201601	1	0	0
0.44	201602	2	0	0
0.41	201603	3	0	0
0.39	201604	4	0	0
0.35	201605	5	0	0
0.34	201606	6	0	0
0.48	201607	7	0	0
0.72	201608	8	0	0
0.71	201609	9	0	0
0.76	201610	10	0	0
0.73	201611	11	0	0
0.71	201612	12	0	0
0.68	201701	13	0	0
0.65	201702	14	0	0
0.79	201703	15	0	0
0.76	201704	16	0	0
0.79	201705	17	0	0
0.78	201706	18	0	0
0.86	201707	19	0	0
0.82	201708	20	0	0
0.78	201709	21	0	0
0.75	201710	22	0	0
0.66	201711	23	0	0
0.71	201712	24	0	0
0.70	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
0.62	201802	26	1	1
0.80	201803	27	1	2
0.94	201804	28	1	3
0.90	201805	29	1	4
0.86	201806	30	1	5
0.90	201807	31	1	6
0.94	201808	32	1	7
0.86	201809	33	1	8
1.03	201810	34	1	9
0.99	201811	35	1	10
0.85	201812	36	1	11
0.88	201901	37	1	12
0.81	201902	38	1	13
0.84	201903	39	1	14
0.84	201904	40	1	15
0.87	201905	41	1	16
0.82	201906	42	1	17
0.90	201907	43	1	18
0.91	201908	44	1	19
0.90	201909	45	1	20
0.94	201910	46	1	21
0.90	201911	47	1	22
1.00	201912	48	1	23
1.08	202001	49	1	24
1.00	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	-0.0101	0.0109
post-intervention trend	0.0059	0.0288
pre-intervention trend	0.0160	<.0001





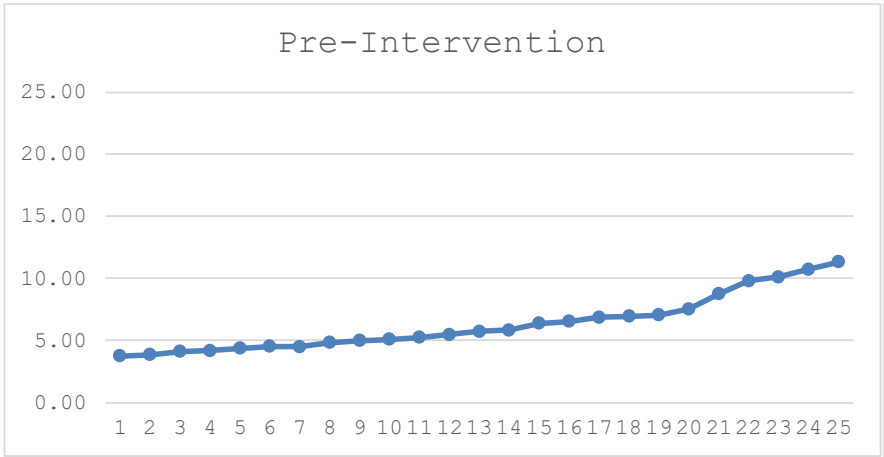
CMS Metric #12 - Medication-Assisted Treatment per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

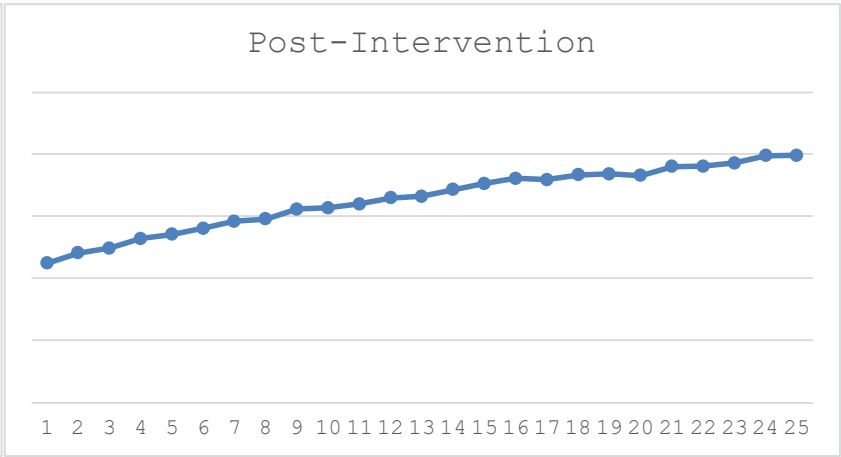
Pre-Intervention				
OUTCOME	time	t	x	tx
3.78	201601	1	0	0
3.85	201602	2	0	0
4.10	201603	3	0	0
4.19	201604	4	0	0
4.37	201605	5	0	0
4.51	201606	6	0	0
4.49	201607	7	0	0
4.83	201608	8	0	0
4.97	201609	9	0	0
5.08	201610	10	0	0
5.24	201611	11	0	0
5.47	201612	12	0	0
5.73	201701	13	0	0
5.83	201702	14	0	0
6.38	201703	15	0	0
6.54	201704	16	0	0
6.87	201705	17	0	0
6.95	201706	18	0	0
7.04	201707	19	0	0
7.54	201708	20	0	0
8.74	201709	21	0	0
9.81	201710	22	0	0
10.11	201711	23	0	0
10.74	201712	24	0	0
11.33	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
11.22	201802	26	1	1
12.04	201803	27	1	2
12.43	201804	28	1	3
13.20	201805	29	1	4
13.53	201806	30	1	5
14.02	201807	31	1	6
14.61	201808	32	1	7
14.78	201809	33	1	8
15.57	201810	34	1	9
15.69	201811	35	1	10
15.98	201812	36	1	11
16.48	201901	37	1	12
16.60	201902	38	1	13
17.16	201903	39	1	14
17.65	201904	40	1	15
18.05	201905	41	1	16
17.95	201906	42	1	17
18.33	201907	43	1	18
18.42	201908	44	1	19
18.28	201909	45	1	20
19.01	201910	46	1	21
19.02	201911	47	1	22
19.30	201912	48	1	23
19.88	202001	49	1	24
19.92	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	0.0560	0.1095
post-intervention trend	0.3435	<.0001
pre-intervention trend	0.2875	<.0001





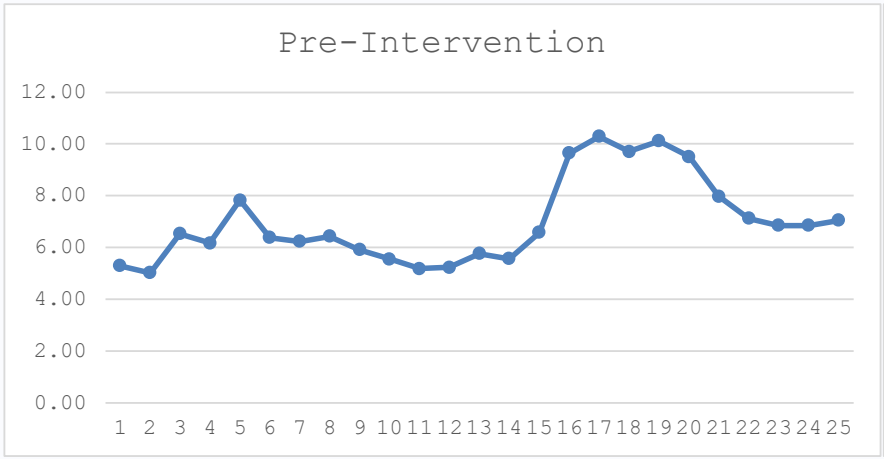
CMS Metric #23 - ED Utilization for SUD per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

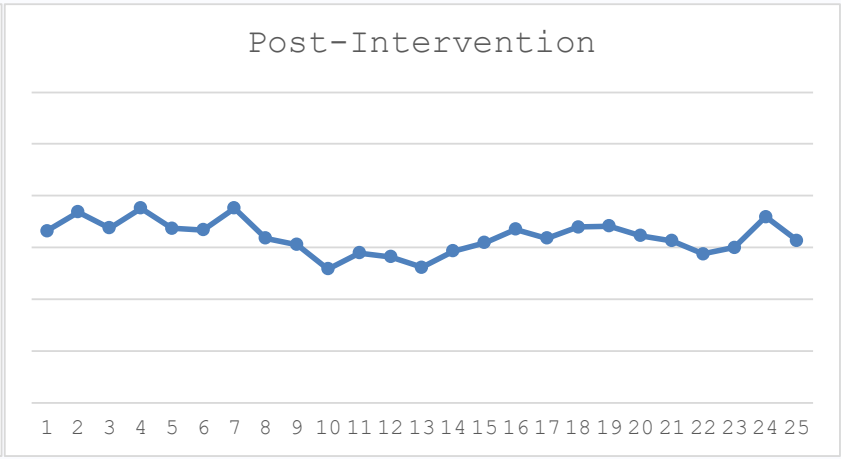
Pre-Intervention				
OUTCOME	time	t	x	tx
5.29	201601	1	0	0
5.01	201602	2	0	0
6.53	201603	3	0	0
6.16	201604	4	0	0
7.82	201605	5	0	0
6.38	201606	6	0	0
6.23	201607	7	0	0
6.42	201608	8	0	0
5.91	201609	9	0	0
5.55	201610	10	0	0
5.18	201611	11	0	0
5.22	201612	12	0	0
5.76	201701	13	0	0
5.56	201702	14	0	0
6.58	201703	15	0	0
9.64	201704	16	0	0
10.29	201705	17	0	0
9.71	201706	18	0	0
10.11	201707	19	0	0
9.51	201708	20	0	0
7.97	201709	21	0	0
7.12	201710	22	0	0
6.84	201711	23	0	0
6.85	201712	24	0	0
7.05	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
6.64	201802	26	1	1
7.36	201803	27	1	2
6.75	201804	28	1	3
7.51	201805	29	1	4
6.74	201806	30	1	5
6.67	201807	31	1	6
7.52	201808	32	1	7
6.35	201809	33	1	8
6.11	201810	34	1	9
5.18	201811	35	1	10
5.78	201812	36	1	11
5.64	201901	37	1	12
5.23	201902	38	1	13
5.86	201903	39	1	14
6.18	201904	40	1	15
6.70	201905	41	1	16
6.35	201906	42	1	17
6.79	201907	43	1	18
6.82	201908	44	1	19
6.45	201909	45	1	20
6.25	201910	46	1	21
5.74	201911	47	1	22
5.99	201912	48	1	23
7.18	202001	49	1	24
6.26	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	-0.1384	0.0028
post-intervention trend	-0.0238	0.4416
pre-intervention trend	0.1145	0.0006





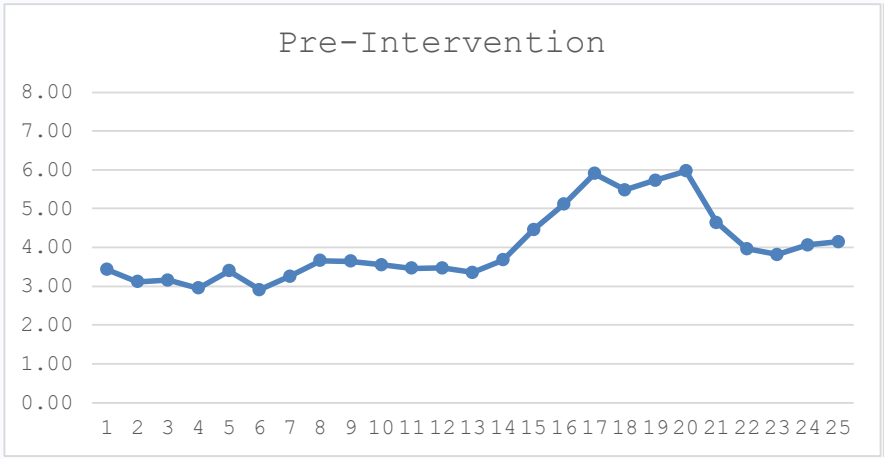
CMS Metric #24 - Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries
Statistical Analysis: Interupted Time Series

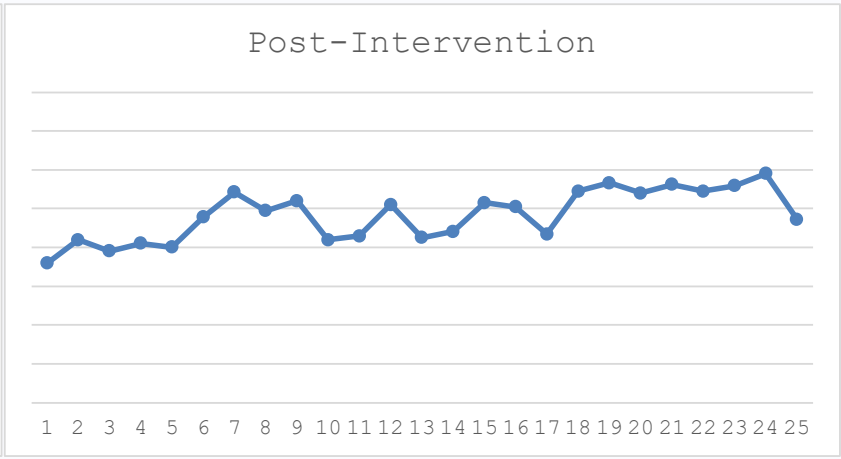
Pre-Intervention				
OUTCOME	time	t	x	tx
3.43	201601	1	0	0
3.11	201602	2	0	0
3.15	201603	3	0	0
2.95	201604	4	0	0
3.39	201605	5	0	0
2.91	201606	6	0	0
3.25	201607	7	0	0
3.66	201608	8	0	0
3.64	201609	9	0	0
3.55	201610	10	0	0
3.46	201611	11	0	0
3.47	201612	12	0	0
3.35	201701	13	0	0
3.67	201702	14	0	0
4.46	201703	15	0	0
5.12	201704	16	0	0
5.90	201705	17	0	0
5.48	201706	18	0	0
5.73	201707	19	0	0
5.97	201708	20	0	0
4.64	201709	21	0	0
3.96	201710	22	0	0
3.81	201711	23	0	0
4.06	201712	24	0	0
4.14	201801	25	0	0

Post-Intervention				
OUTCOME	time	t	x	tx
3.60	201802	26	1	1
4.19	201803	27	1	2
3.90	201804	28	1	3
4.10	201805	29	1	4
4.00	201806	30	1	5
4.78	201807	31	1	6
5.42	201808	32	1	7
4.94	201809	33	1	8
5.20	201810	34	1	9
4.19	201811	35	1	10
4.29	201812	36	1	11
5.10	201901	37	1	12
4.25	201902	38	1	13
4.41	201903	39	1	14
5.15	201904	40	1	15
5.04	201905	41	1	16
4.34	201906	42	1	17
5.45	201907	43	1	18
5.66	201908	44	1	19
5.40	201909	45	1	20
5.62	201910	46	1	21
5.45	201911	47	1	22
5.59	201912	48	1	23
5.91	202001	49	1	24
4.72	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	-0.0178	0.4669
post-intervention trend	0.0637	0.0002
pre-intervention trend	0.0815	<.0001





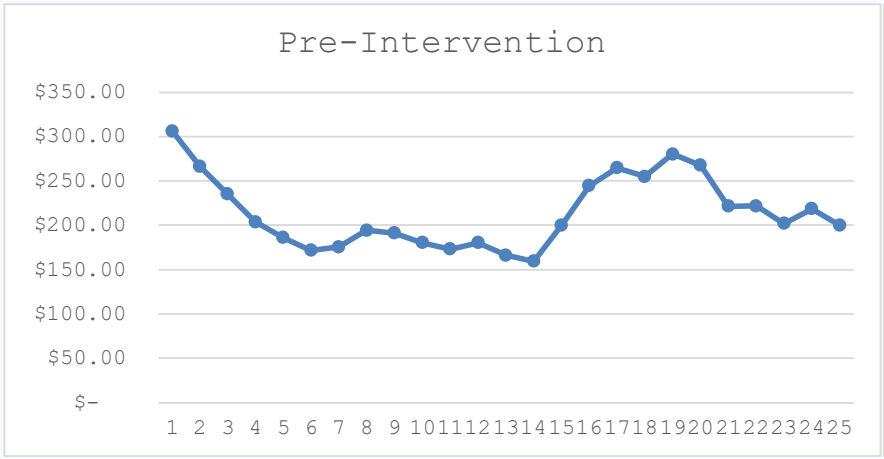
CMS Metric #30 - Per Capita SUD Spending
Statistical Analysis: Interupted Time Series

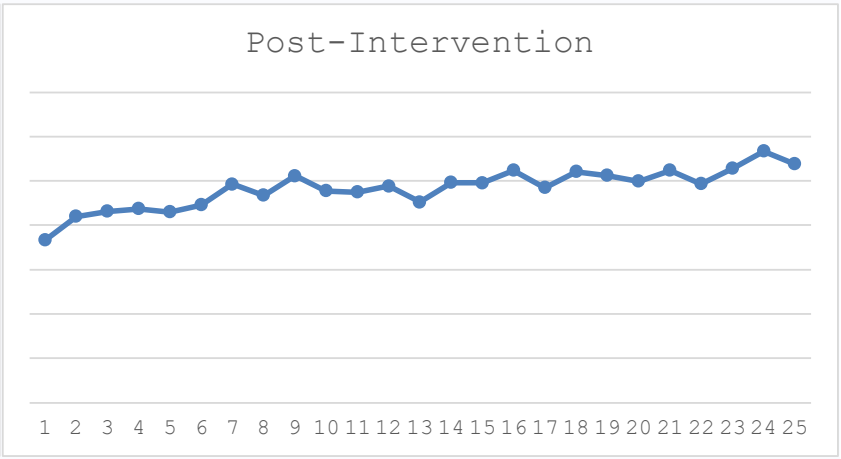
Pre-Intervention					
	OUTCOME	time	t	x	tx
$	305.96	201601	1	0	0
$	266.04	201602	2	0	0
$	235.18	201603	3	0	0
$	203.81	201604	4	0	0
$	186.11	201605	5	0	0
$	171.67	201606	6	0	0
$	175.64	201607	7	0	0
$	194.12	201608	8	0	0
$	190.89	201609	9	0	0
$	180.10	201610	10	0	0
$	172.82	201611	11	0	0
$	180.12	201612	12	0	0
$	166.16	201701	13	0	0
$	159.77	201702	14	0	0
$	200.05	201703	15	0	0
$	244.40	201704	16	0	0
$	264.82	201705	17	0	0
$	254.97	201706	18	0	0
$	280.02	201707	19	0	0
$	267.47	201708	20	0	0
$	221.32	201709	21	0	0
$	221.75	201710	22	0	0
$	201.77	201711	23	0	0
$	218.40	201712	24	0	0
$	199.77	201801	25	0	0

Post-Intervention					
	OUTCOME	time	t	x	tx
$	182.98	201802	26	1	1
$	209.75	201803	27	1	2
$	215.48	201804	28	1	3
$	218.57	201805	29	1	4
$	214.82	201806	30	1	5
$	222.81	201807	31	1	6
$	246.34	201808	32	1	7
$	233.53	201809	33	1	8
$	255.77	201810	34	1	9
$	238.72	201811	35	1	10
$	237.19	201812	36	1	11
$	244.12	201901	37	1	12
$	226.16	201902	38	1	13
$	247.89	201903	39	1	14
$	247.84	201904	40	1	15
$	261.63	201905	41	1	16
$	242.39	201906	42	1	17
$	260.18	201907	43	1	18
$	255.96	201908	44	1	19
$	249.45	201909	45	1	20
$	261.70	201910	46	1	21
$	246.61	201911	47	1	22
$	264.07	201912	48	1	23
$	283.48	202001	49	1	24
$	268.85	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	2.2599	0.1460
post-intervention trend	2.5942	<.0001
pre-intervention trend	0.3343	0.8214





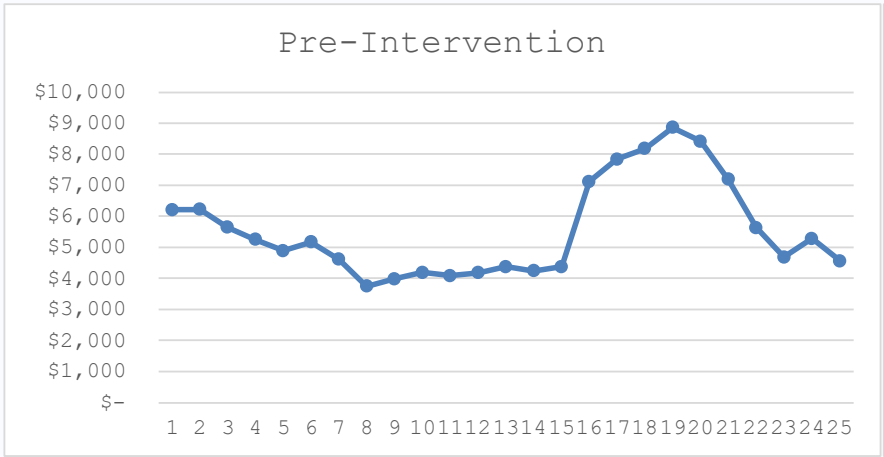
CMS Metric #31 - Per Capita SUD Spending Within IMDs
Statistical Analysis: Interupted Time Series

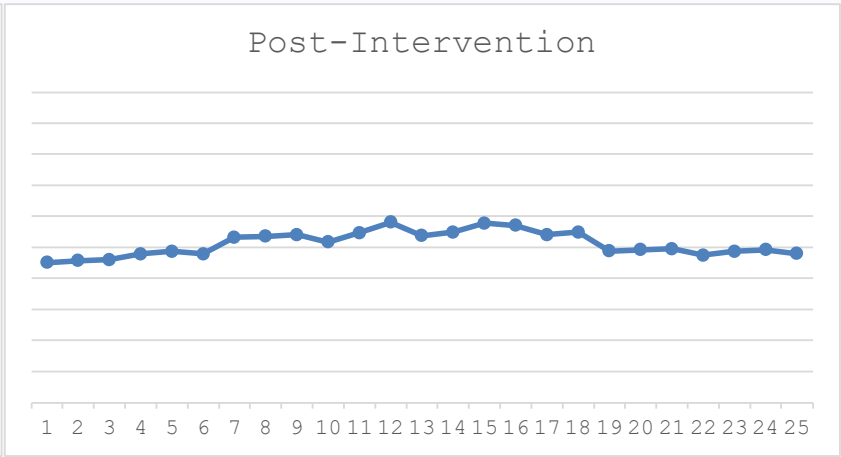
Pre-Intervention					
	OUTCOME	time	t	x	tx
$	6,213.40	201601	1	0	0
$	6,222.67	201602	2	0	0
$	5,645.33	201603	3	0	0
$	5,251.67	201604	4	0	0
$	4,890.96	201605	5	0	0
$	5,168.90	201606	6	0	0
$	4,608.43	201607	7	0	0
$	3,745.79	201608	8	0	0
$	3,986.24	201609	9	0	0
$	4,191.26	201610	10	0	0
$	4,083.07	201611	11	0	0
$	4,180.72	201612	12	0	0
$	4,374.16	201701	13	0	0
$	4,236.04	201702	14	0	0
$	4,372.80	201703	15	0	0
$	7,116.05	201704	16	0	0
$	7,834.73	201705	17	0	0
$	8,179.32	201706	18	0	0
$	8,857.84	201707	19	0	0
$	8,419.22	201708	20	0	0
$	7,186.00	201709	21	0	0
$	5,630.39	201710	22	0	0
$	4,683.38	201711	23	0	0
$	5,284.08	201712	24	0	0
$	4,560.80	201801	25	0	0

Post-Intervention					
	OUTCOME	time	t	x	tx
$	4,516.89	201802	26	1	1
$	4,574.82	201803	27	1	2
$	4,601.91	201804	28	1	3
$	4,785.50	201805	29	1	4
$	4,872.31	201806	30	1	5
$	4,788.88	201807	31	1	6
$	5,319.70	201808	32	1	7
$	5,352.99	201809	33	1	8
$	5,404.41	201810	34	1	9
$	5,164.50	201811	35	1	10
$	5,472.12	201812	36	1	11
$	5,818.93	201901	37	1	12
$	5,379.82	201902	38	1	13
$	5,493.42	201903	39	1	14
$	5,778.01	201904	40	1	15
$	5,703.76	201905	41	1	16
$	5,402.82	201906	42	1	17
$	5,486.98	201907	43	1	18
$	4,880.18	201908	44	1	19
$	4,922.35	201909	45	1	20
$	4,948.64	201910	46	1	21
$	4,745.65	201911	47	1	22
$	4,870.66	201912	48	1	23
$	4,921.14	202001	49	1	24
$	4,799.17	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	-50.9322	0.2443
post-intervention trend	8.4624	0.7817
pre-intervention trend	59.3947	0.0579



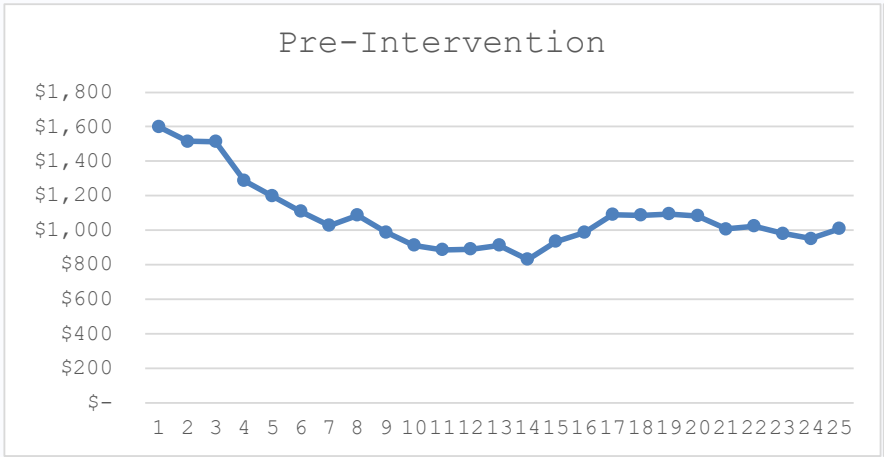


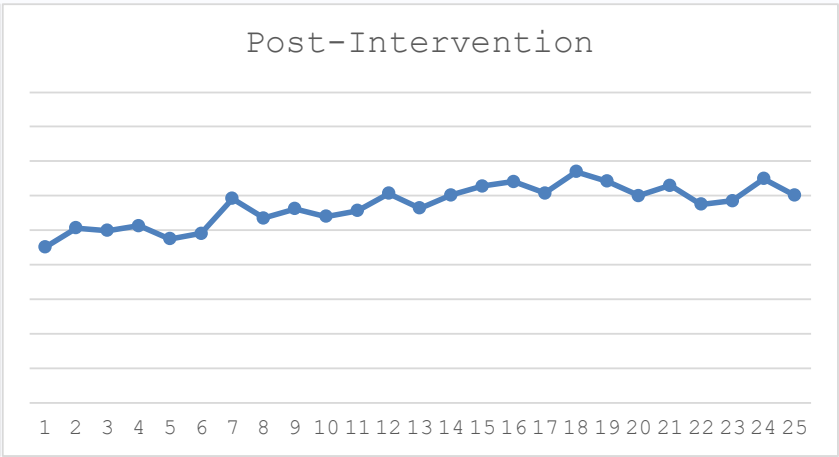
HMA-Burns Metric #1 - Per Capita Total Spending for Individuals with SUD
Statistical Analysis: Interupted Time Series

Pre-Intervention					Post-Intervention				
OUTCOME	time	t	x	tx	OUTCOME	time	t	x	tx
$ 1,599.96	201601	1	0	0	$ 900.09	201802	26	1	1
$ 1,514.70	201602	2	0	0	$ 1,012.75	201803	27	1	2
$ 1,512.46	201603	3	0	0	$ 996.71	201804	28	1	3
$ 1,286.29	201604	4	0	0	$ 1,024.59	201805	29	1	4
$ 1,197.31	201605	5	0	0	$ 949.95	201806	30	1	5
$ 1,108.38	201606	6	0	0	$ 979.82	201807	31	1	6
$ 1,027.77	201607	7	0	0	$ 1,182.26	201808	32	1	7
$ 1,086.90	201608	8	0	0	$ 1,069.12	201809	33	1	8
$ 987.47	201609	9	0	0	$ 1,123.11	201810	34	1	9
$ 911.21	201610	10	0	0	$ 1,079.22	201811	35	1	10
$ 886.63	201611	11	0	0	$ 1,113.14	201812	36	1	11
$ 888.97	201612	12	0	0	$ 1,211.67	201901	37	1	12
$ 912.54	201701	13	0	0	$ 1,127.72	201902	38	1	13
$ 829.34	201702	14	0	0	$ 1,204.06	201903	39	1	14
$ 933.18	201703	15	0	0	$ 1,254.75	201904	40	1	15
$ 985.41	201704	16	0	0	$ 1,281.40	201905	41	1	16
$ 1,090.55	201705	17	0	0	$ 1,214.36	201906	42	1	17
$ 1,086.33	201706	18	0	0	$ 1,339.38	201907	43	1	18
$ 1,093.64	201707	19	0	0	$ 1,282.48	201908	44	1	19
$ 1,082.14	201708	20	0	0	$ 1,200.16	201909	45	1	20
$ 1,006.15	201709	21	0	0	$ 1,258.41	201910	46	1	21
$ 1,024.12	201710	22	0	0	$ 1,149.07	201911	47	1	22
$ 980.22	201711	23	0	0	$ 1,170.51	201912	48	1	23
$ 950.82	201712	24	0	0	$ 1,297.32	202001	49	1	24
$ 1,008.33	201801	25	0	0	$ 1,200.42	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	29.5683	<.0001
post-intervention trend	12.9249	<.0001
pre-intervention trend	-16.6434	0.0091



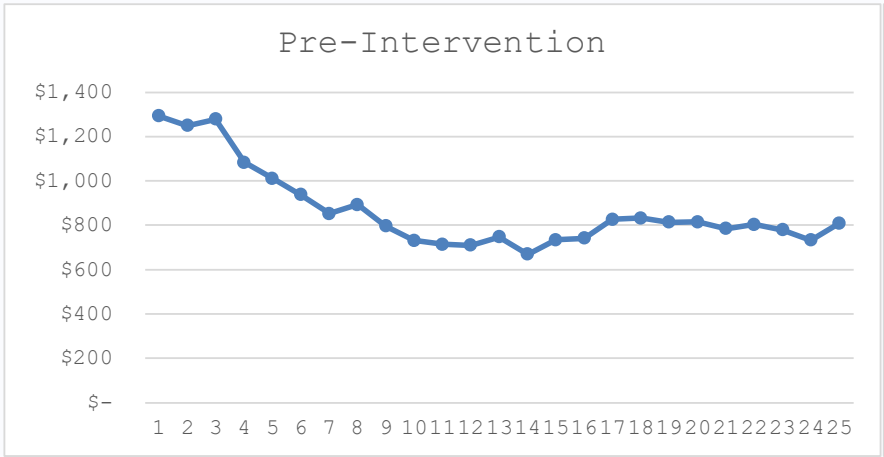


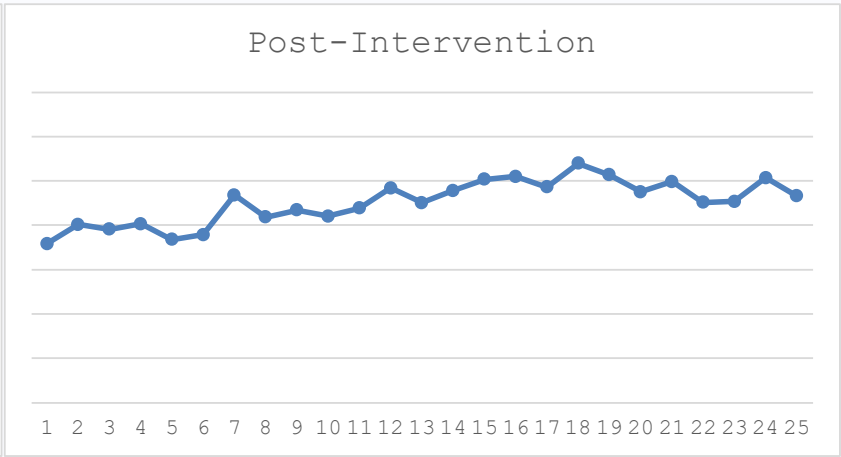
HMA-Burns Metric #2 - Per Capita Total Spending Excluding SUD Spending for Individuals with SUD
Statistical Analysis: Interupted Time Series

Pre-Intervention					Post-Intervention				
OUTCOME	time	t	x	tx	OUTCOME	time	t	x	tx
$ 1,294.00	201601	1	0	0	$ 717.11	201802	26	1	1
$ 1,248.67	201602	2	0	0	$ 803.00	201803	27	1	2
$ 1,277.28	201603	3	0	0	$ 781.23	201804	28	1	3
$ 1,082.48	201604	4	0	0	$ 806.02	201805	29	1	4
$ 1,011.20	201605	5	0	0	$ 735.12	201806	30	1	5
$ 936.71	201606	6	0	0	$ 757.01	201807	31	1	6
$ 852.13	201607	7	0	0	$ 935.92	201808	32	1	7
$ 892.78	201608	8	0	0	$ 835.59	201809	33	1	8
$ 796.58	201609	9	0	0	$ 867.34	201810	34	1	9
$ 731.11	201610	10	0	0	$ 840.49	201811	35	1	10
$ 713.81	201611	11	0	0	$ 875.95	201812	36	1	11
$ 708.85	201612	12	0	0	$ 967.55	201901	37	1	12
$ 746.38	201701	13	0	0	$ 901.56	201902	38	1	13
$ 669.57	201702	14	0	0	$ 956.18	201903	39	1	14
$ 733.13	201703	15	0	0	$ 1,006.92	201904	40	1	15
$ 741.01	201704	16	0	0	$ 1,019.77	201905	41	1	16
$ 825.73	201705	17	0	0	$ 971.98	201906	42	1	17
$ 831.35	201706	18	0	0	$ 1,079.19	201907	43	1	18
$ 813.62	201707	19	0	0	$ 1,026.52	201908	44	1	19
$ 814.67	201708	20	0	0	$ 950.71	201909	45	1	20
$ 784.83	201709	21	0	0	$ 996.71	201910	46	1	21
$ 802.37	201710	22	0	0	$ 902.46	201911	47	1	22
$ 778.45	201711	23	0	0	$ 906.43	201912	48	1	23
$ 732.41	201712	24	0	0	$ 1,013.85	202001	49	1	24
$ 808.56	201801	25	0	0	$ 931.57	202002	50	1	25

ITS Output Table from SAS

Parameter	Estimate	p-value
post-intervention trend compared to pre-intervention trend	27.3087	<.0001
post-intervention trend	10.3308	<.0001
pre-intervention trend	-16.9779	0.0014





CMS Metric #15a1: Chi-Square Test of Association of Initiation of AOD Treatment (Alcohol abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Initiation by Year			
Initiation	Years		
Frequency Col Pct	Pre	Post	Total
No	10091 45.89	10947 47.32	21038
Yes	11899 54.11	12185 52.68	24084
Total	21990	23132	45122

Statistics for Table of Initiation by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	9.3284	0.0023

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.9440	0.9097	0.9796

CMS Metric #15b1: Chi-Square Test of Association of Engagement of AOD Treatment (Alcohol abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Engagement by Year			
Engagement	Years		
Frequency Col Pct	Pre	Post	Total
No	9723 81.71	9300 76.32	19023
Yes	2176 18.29	2885 23.68	5061
Total	11899	12185	24084

Statistics for Table of Engagement by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	105.3489	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.3861	1.3022	1.4755

CMS Metric #15a2: Chi-Square Test of Association of Initiation of AOD Treatment (Opioid abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Initiation by Year			
Initiation	Years		
Frequency Col Pct	Pre	Post	Total
No	6044 43.06	5708 38.02	11752
Yes	7993 56.94	9307 61.98	17300
Total	14037	15015	29052

Statistics for Table of Initiation by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	76.5734	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.2329	1.1764	1.2922

CMS Metric #15b2: Chi-Square Test of Association of Engagement of AOD Treatment (Opioid abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Engagement by Year			
Engagement	Years		
Frequency Col Pct	Pre	Post	Total
No	5172 64.71	5038 54.13	10210
Yes	2821 35.29	4269 45.87	7090
Total	7993	9307	17300

Statistics for Table of Engagement by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	198.8294	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.5535	1.4611	1.6519

CMS Metric #15a3: Chi-Square Test of Association of Initiation of AOD Treatment (Other drug abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Initiation by Year			
Initiation	Years		
Frequency Col Pct	Pre	Post	Total
No	13380 51.61	14706 49.60	28086
Yes	12547 48.39	14946 50.40	27493
Total	25927	29652	55579

Statistics for Table of Initiation by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	22.3813	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.0838	1.0483	1.1205

CMS Metric #15b3: Chi-Square Test of Association of Engagement of AOD Treatment (Other Drug abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Engagement by Year			
Engagement	Years		
Frequency Col Pct	Pre	Post	Total
No	10336 82.38	11479 76.80	21815
Yes	2211 17.62	3467 23.20	5678
Total	12547	14946	27493

Statistics for Table of Engagement by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	129.3724	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.4119	1.3302	1.4986

CMS Metric #15a4: Chi-Square Test of Association of Initiation of AOD Treatment (Total AOD abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Initiation by Year			
Initiation	Years		
Frequency Col Pct	Pre	Post	Total
No	25278 47.76	27117 46.50	52395
Yes	27651 52.24	31205 53.50	58856
Total	52929	58322	111251

Statistics for Table of Initiation by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	17.7646	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.0520	1.0275	1.0771

CMS Metric #15b4: Chi-Square Test of Association of Engagement of AOD Treatment (Total AOD abuse or dependence) by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Engagement by Year			
Engagement	Years		
Frequency Col Pct	Pre	Post	Total
No	20984 75.89	21356 68.44	42340
Yes	6667 24.11	9849 31.56	16516
Total	27651	31205	58856

Statistics for Table of Engagement by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	403.1808	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.4515	1.3996	1.5054

CMS Metric #17a: Follow-Up After EDV for Alcohol and Other Drug Abuse or Dependence within 7 Days by Pre/Post Years
Statistical Analysis: Chi-Square

Table of FollowUp_7day by Year			
FollowUp_7day	Years		
Frequency Col Pct	Pre	Post	Total
No	9224 92.86	8502 89.97	17726
Yes	709 7.14	948 10.03	1657
Total	9933	9450	19383

Statistics for Table of FollowUp_7day by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	51.8769	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.4506	1.3104	1.6059

CMS Metric #17b: Follow-Up After EDV for Alcohol and Other Drug Abuse or Dependence within 30 Days by Pre/Post Years
Statistical Analysis: Chi-Square

Table of FollowUp_30day by Year			
FollowUp_30day	Years		
Frequency Col Pct	Pre	Post	Total
No	8839 88.99	8029 84.96	16868
Yes	1094 11.01	1421 15.04	2515
Total	9933	9450	19383

Statistics for Table of FollowUp_30day by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	69.4200	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.4299	1.3142	1.5559

CMS Metric #17c: Follow-Up After EDV for Mental Health within 7 Days by Pre/Post Years
Statistical Analysis: Chi-Square

Table of FollowUp_7day by Year			
FollowUp_7day	Years		
Frequency Col Pct	Pre	Post	Total
No	3791 69.61	3473 68.11	7264
Yes	1655 30.39	1626 31.89	3281
Total	5446	5099	10545

Statistics for Table of FollowUp_7day by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	2.7620	0.0965

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.0724	0.9875	1.1646

CMS Metric #17d: Follow-Up After EDV for Mental Health within 30 Days by Pre/Post Years
Statistical Analysis: Chi-Square

Table of FollowUp_30day by Year			
FollowUp_30day	Years		
Frequency Col Pct	Pre	Post	Total
No	3078 56.52	2809 55.09	5887
Yes	2368 43.48	2290 44.91	4658
Total	5446	5099	10545

Statistics for Table of FollowUp_30day by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	2.1816	0.1397

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.0597	0.9812	1.1444

CMS Metric #18: Use of Opioids at High Dosage in Persons Without Cancer by Pre/Post Years
Statistical Analysis: Chi-Square

Table of High_Dosage_Use by Year			
High_Dosage_Use	Years		
Frequency Col Pct	Pre	Post	Total
No	99968 94.63	59609 94.92	159577
Yes	5677 5.37	3191 5.08	8868
Total	105645	62800	168445

Statistics for Table of High_Dosage_Use by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	6.7541	0.0094

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.9427	0.9016	0.9856

CMS Metric #19: Use of Opioids from Multiple Providers in Persons Without Cancer by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Multiple_Providers by Year			
Multiple_Providers	Years		
Frequency Col Pct	Pre	Post	Total
No	116567 97.66	69379 98.99	185946
Yes	2791 2.34	707 1.01	3498
Total	119358	70086	189444

Statistics for Table of Multiple_Providers by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	430.7128	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.4256	0.3917	0.4625

CMS Metric #20: Use of Opioids at High Dosage and from Multiple Providers in Persons Without Cancer by Pre/Post Years
Statistical Analysis: Chi-Square

Table of High_Dosage_Use by Year			
High_Dosage_Use	Years		
Frequency Col Pct	Pre	Post	Total
No	105557 99.92	62781 99.97	168338
Yes	88 0.08	19 0.03	107
Total	105645	62800	168445

Statistics for Table of High_Dosage_Use by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	17.4565	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.3630	0.2211	0.5961

CMS Metric #21: Concurrent Use of Opioids and Benzodiazepines by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Concurrent_Use by Year			
Concurrent_Use	Years		
Frequency Col Pct	Pre	Post	Total
No	98386 79.78	61144 84.59	159530
Yes	24932 20.22	11136 15.41	36068
Total	123318	72280	195598

Statistics for Table of Concurrent_Use by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	701.2885	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.7187	0.7013	0.7365

CMS Metric #22: Continuity of Pharmacotherapy by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Continuity by Year			
Continuity	Years		
Frequency Col Pct	Pre	Post	Total
No	11708 80.97	25707 74.48	37415
Yes	2751 19.03	8808 25.52	11559
Total	14459	34515	48974

Statistics for Table of Continuity by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	238.2613	<.0001

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.4582	1.3898	1.5300

CMS Metric #25: Readmissions Among Beneficiaries with SUD by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Readmissions by Year			
Readmissions	Years		
Frequency Col Pct	Pre	Post	Total
No	66513 82.51	71684 82.53	138197
Yes	14100 17.49	15169 17.47	29269
Total	80613	86853	167466

Statistics for Table of Readmissions by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	0.0193	0.8894

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	0.9982	0.9733	1.0237

CMS Metric #32: Access to Preventive/Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD by Pre/Post Years
Statistical Analysis: Chi-Square

Table of Access_Preventive_Svcs by Year			
Access_Preventive_Svcs	Years		
Frequency Col Pct	Pre	Post	Total
No	7501 10.81	8840 10.65	16341
Yes	61869 89.19	74150 89.35	136019
Total	69370	82990	152360

Statistics for Table of Preventive Svcs by Year

The FREQ Procedure

Statistic	DF	Value	Prob
Chi-Square	1	1.0248	0.3114

Odds Ratio and Relative Risks			
Statistic	Value	95% Confidence Limits	
Odds Ratio	1.0170	0.9844	1.0506

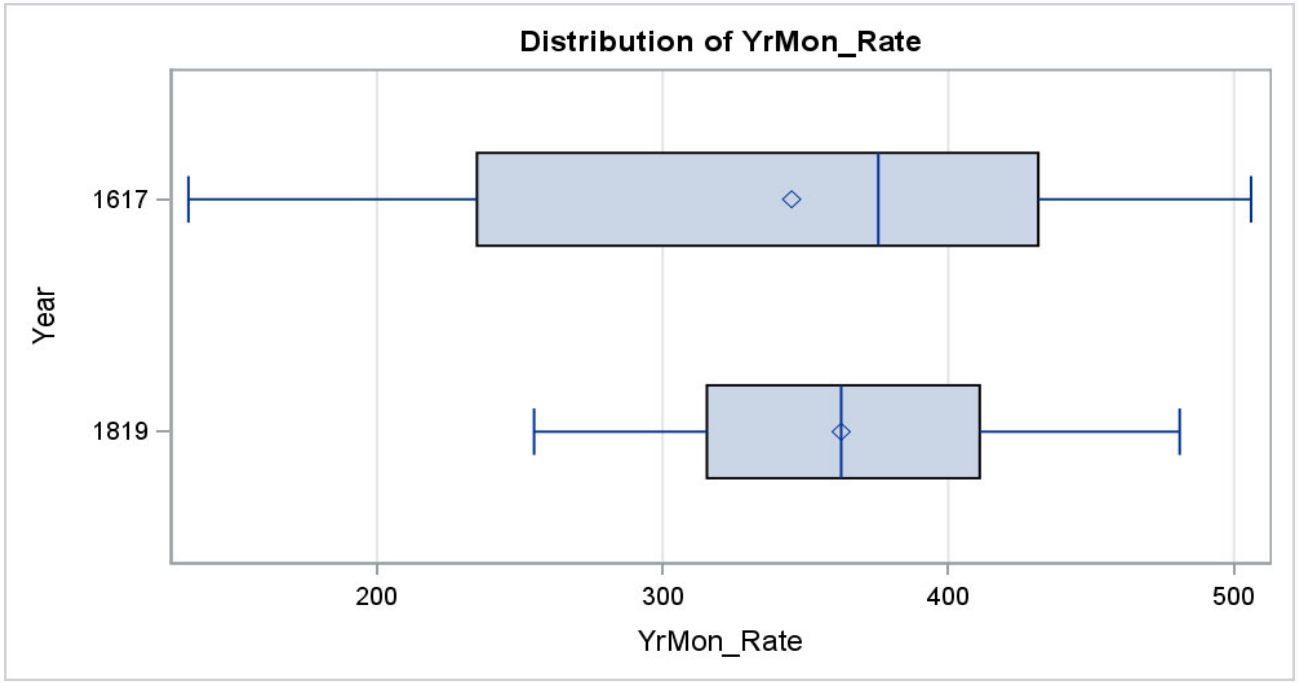
CMS Metric #5 - Medicaid Beneficiaries Treated in an IMD for SUD
Statistical Test: t-Test

Variable: YrMon_Rate

Year	N	Mean	Std Dev	Std Err	Minimum	Maximum
2016/2017	24	345.2	120.3	24.5528	134.0	506.0
2018/2019	24	362.5	60.8998	12.4311	255.0	481.0

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	46	-0.63	0.5319
Satterthwait	Unequal	34.065	-0.63	0.5330

Equality of Variances				
Method	Num	Den	F Value	Pr > F
Folded F	23	23	3.90	0.0018



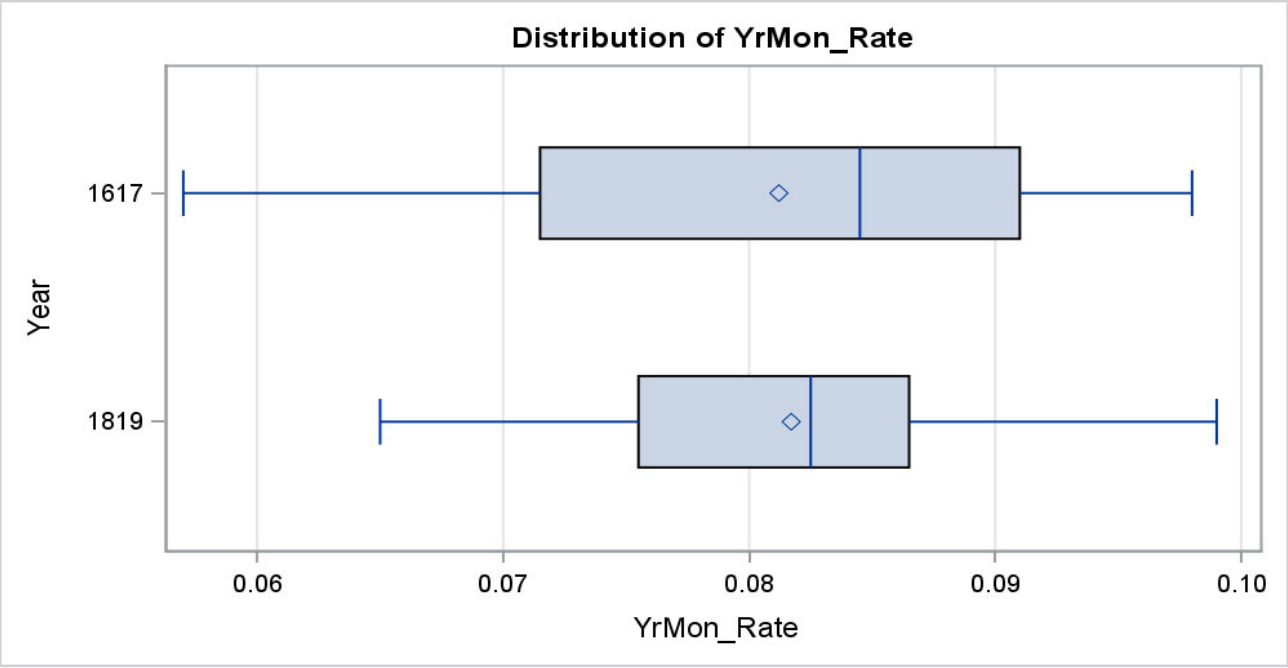
CMS Metric #27 - Overdose Deaths (rate)
Statistical Test: t-Test

Variable: YrMon_Rate

Year	N	Mean	Std Dev	Std Err	Minimum	Maximum
2016/2017	24	0.0812	0.0115	0.00235	0.0570	0.0980
2018/2019	24	0.0817	0.00893	0.00182	0.0650	0.0990

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	46	-0.17	0.8671
Satterthwait	Unequal	43.357	-0.17	0.8671

Equality of Variances				
Method	Num	Den	F Value	Pr > F
Folded F	23	23	1.66	0.2342



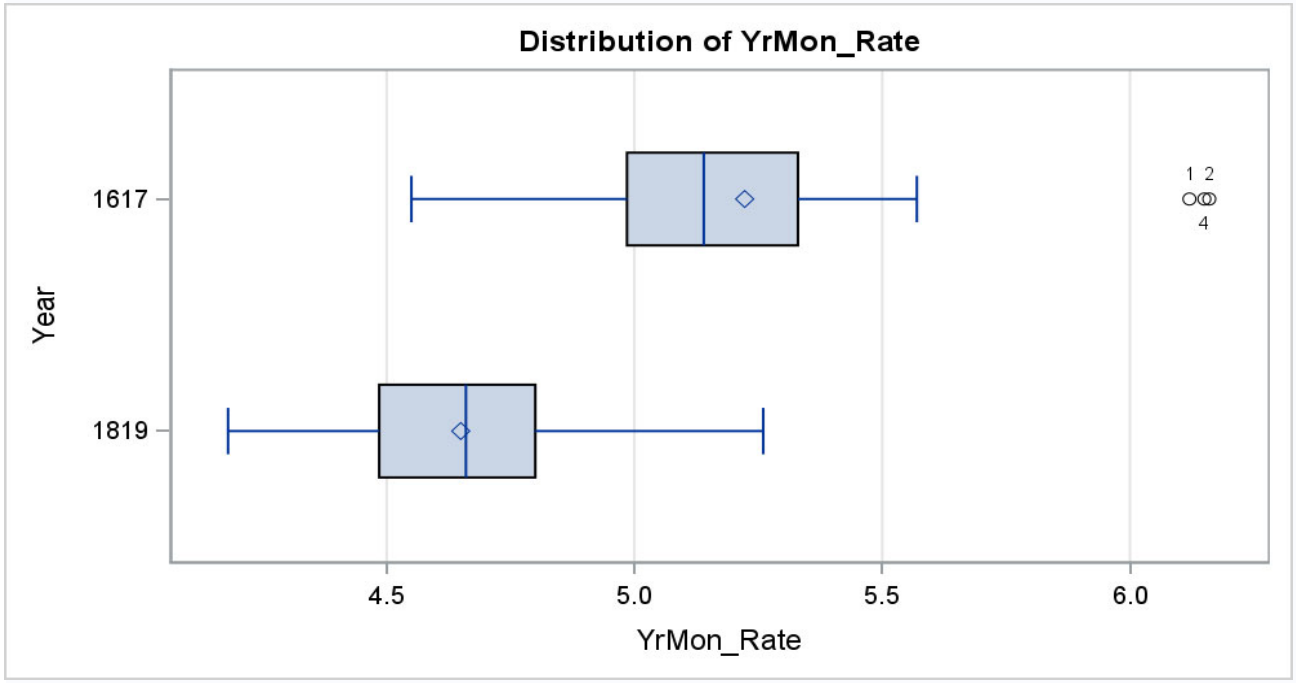
CMS Metric #36 - Average Length of Stay in IMDs
Statistical Test: t-Test

Variable: YrMon_Rate

Year	N	Mean	Std Dev	Std Err	Minimum	Maximum
2016/2017	24	5.2225	0.4125	0.0842	4.5500	6.1600
2018/2019	24	4.6496	0.2479	0.0506	4.1800	5.2600

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	46	5.83	<.0001
Satterthwait	Unequal	37.694	5.83	<.0001

Equality of Variances				
Method	Num	Den	F Value	Pr > F
Folded F	23	23	2.77	0.0179



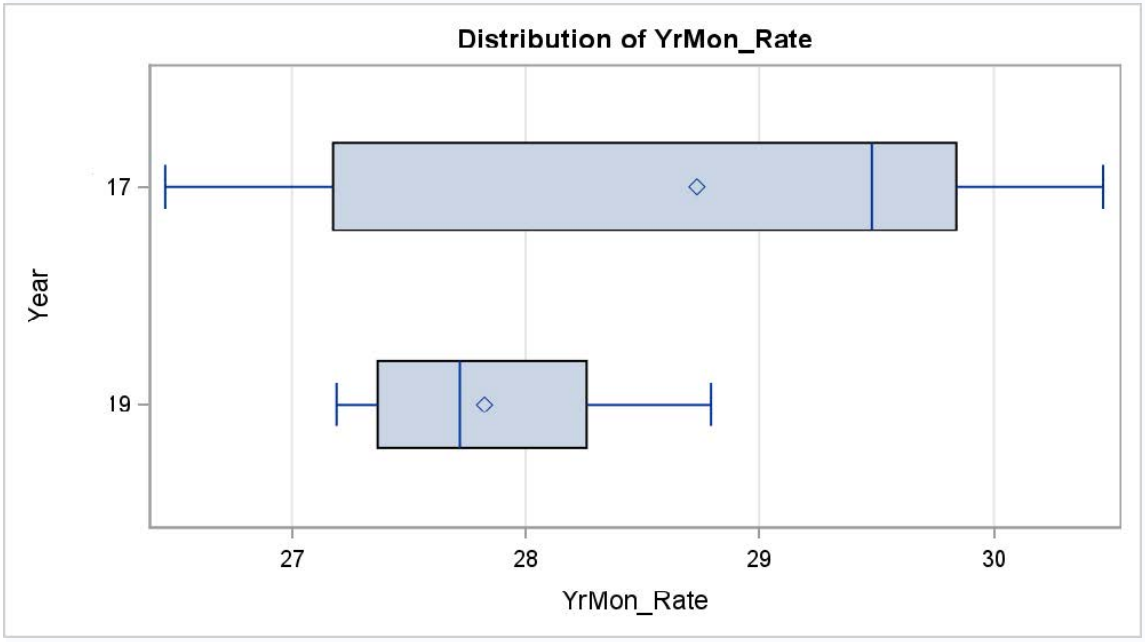
HMA-Burns Provider Capacity Metric: Number of SUD providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
Statistical Test: t-Test

Variable: YrMon_Rate

Year	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
2017		12	28.7300	1.4971	0.4322	26.4600	30.4700
2019		12	27.8250	0.5412	0.1562	27.1900	28.7900
Diff (1-2)	Pooled		0.9050	1.1257	0.4595		
Diff (1-2)	Satterthwaite		0.9050		0.4595		

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	22	1.97	0.0616
Satterthwait	Unequal	13.826	1.97	0.0693

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	11	11	7.65	0.0021



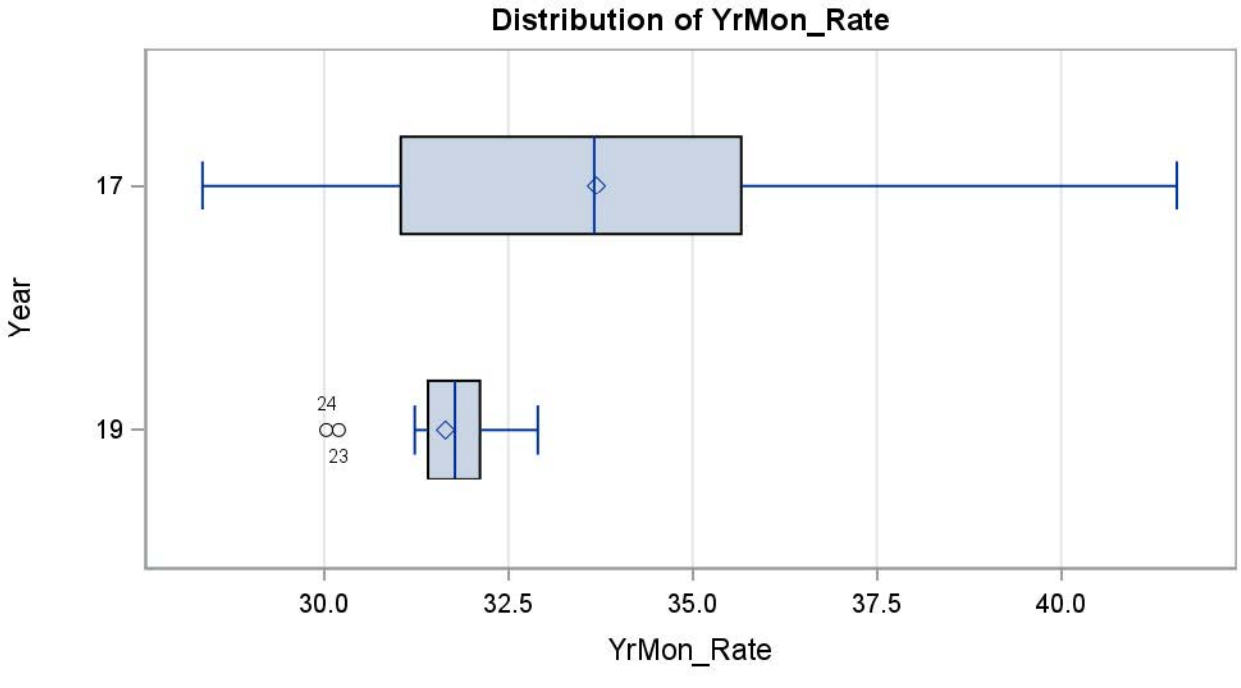
HMA-Burns Provider Capacity Metric: Number of Primary Care providers, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
Statistical Test: t-Test

Variable: YrMon_Rate

Year	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
2017		12	33.6942	3.5985	1.0388	28.3500	41.5700
2019		12	31.6467	0.8271	0.2388	30.0300	32.9000
Diff (1-2)	Pooled		2.0475	2.6108	1.0659		
Diff (1-2)	Satterthwaite		2.0475		1.0659		

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	22	1.92	0.0678
Satterthwait	Unequal	12.159	1.92	0.0785

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	11	11	18.93	<.0001



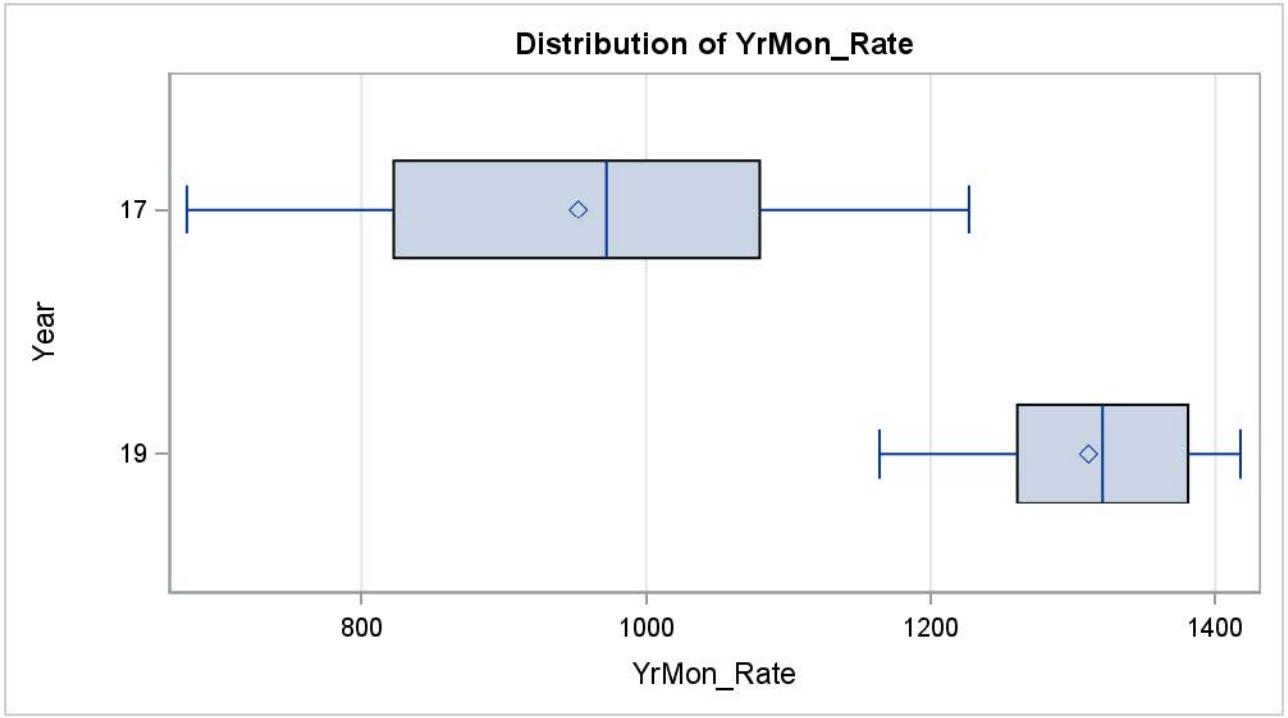
HMA-Burns Provider Capacity Metric: Utilization of SUD services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
Statistical Test: t-Test

Variable: YrMon_Rate

Year	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
2017		12	952.3	173.3	50.0318	677.3	1226.9
2019		12	1310.8	77.2326	22.2951	1164.0	1417.6
Diff (1-2)	Pooled		-358.5	134.2	54.7746		
Diff (1-2)	Satterthwaite		-358.5		54.7746		

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	22	-6.55	<.0001
Satterthwait	Unequal	15.203	-6.55	<.0001

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	11	11	5.04	0.0125



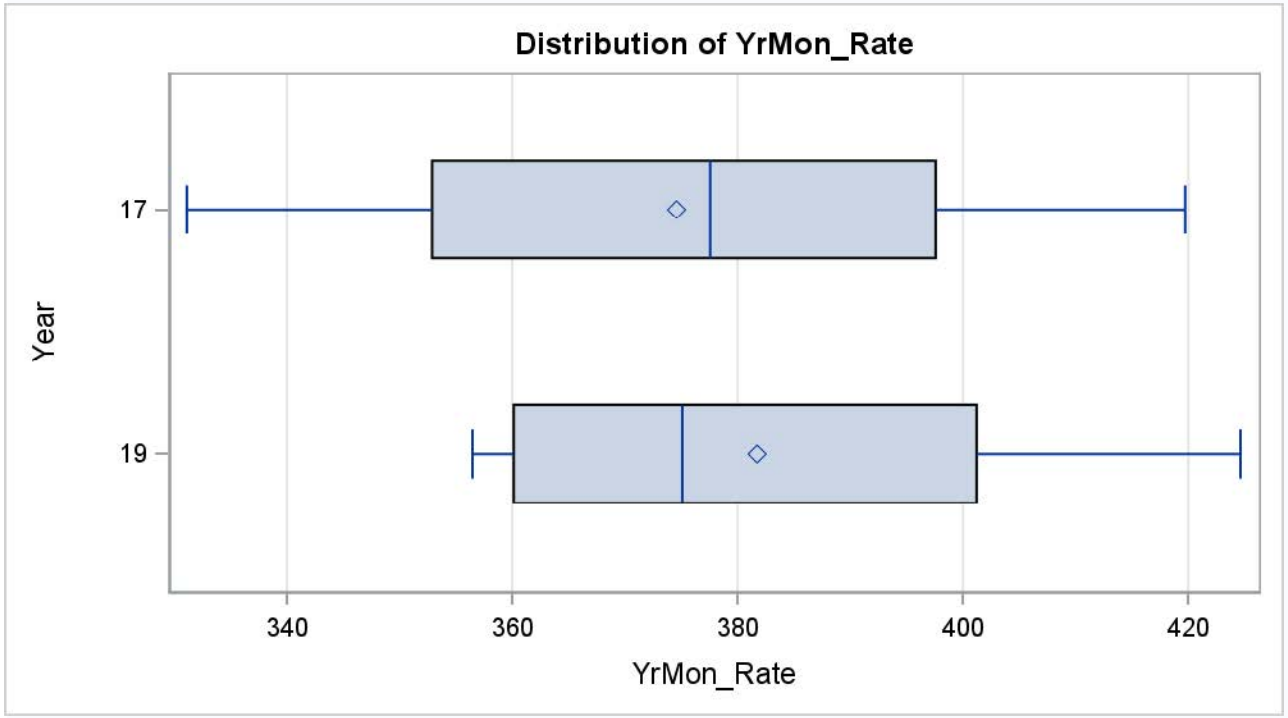
HMA-Burns Provider Capacity Metric: Utilization of Primary Care services, per 1,000 Medicaid Beneficiaries with SUD Diagnosis
Statistical Test: t-Test

Variable: YrMon_Rate

Year	Method	N	Mean	Std Dev	Std Err	Minimum	Maximum
2017		12	374.6	28.5633	8.2455	331.1	419.7
2019		12	381.7	23.5578	6.8005	356.5	424.6
Diff (1-2)	Pooled		-7.1508	26.1804	10.6881		
Diff (1-2)	Satterthwaite		-7.1508		10.6881		

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	22	-0.67	0.5104
Satterthwait	Unequal	21.231	-0.67	0.5107

Equality of Variances				
Method	Num DF	Den DF	F Value	Pr > F
Folded F	11	11	1.47	0.5334



Appendix H – Utilization Measures CY 2016 - CY 2020 Data

Milestone: 1
CMS Metric #: 6
CMS Metric Name: Any SUD Treatment
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	16,260	794	14,883	422	13,768	2,492	261	21	4,780	3,243
2016	Feb	16,358	775	14,977	447	13,818	2,540	273	20	4,797	3,295
2016	Mar	17,717	837	16,273	468	15,049	2,668	300	15	5,388	3,596
2016	Apr	17,718	779	16,389	445	15,122	2,596	298	13	5,529	3,510
2016	May	18,220	817	16,759	518	15,492	2,728	318	21	5,687	3,601
2016	Jun	18,162	743	16,822	481	15,530	2,632	300	22	5,686	3,534
2016	Jul	17,873	701	16,620	433	15,289	2,584	296	15	5,467	3,422
2016	Aug	19,483	821	18,039	499	16,740	2,743	325	22	6,207	3,751
2016	Sept	18,900	800	17,494	483	16,254	2,646	283	22	6,046	3,730
2016	Oct	18,774	781	17,357	490	16,231	2,543	276	39	6,282	3,573
2016	Nov	18,959	770	17,579	474	16,444	2,515	282	35	6,345	3,638
2016	Dec	18,751	727	17,410	484	16,288	2,463	268	39	6,389	3,607
2017	Jan	19,477	760	18,108	468	16,920	2,557	271	39	6,589	3,743
2017	Feb	19,225	782	17,856	478	16,813	2,412	348	37	6,440	3,498
2017	Mar	21,061	779	19,672	513	18,466	2,595	360	57	7,181	3,745
2017	Apr	20,704	768	19,362	475	18,222	2,482	387	38	7,154	3,653
2017	May	21,948	806	20,484	525	19,241	2,707	371	56	7,670	3,749
2017	Jun	22,167	776	20,710	569	19,454	2,713	404	67	7,767	3,824
2017	Jul	21,821	706	20,429	569	19,249	2,572	375	41	7,687	3,603
2017	Aug	23,484	781	21,976	606	20,626	2,858	450	42	8,537	4,181
2017	Sept	23,353	784	21,879	567	20,600	2,753	453	31	9,171	3,976
2017	Oct	24,487	793	22,953	630	21,602	2,885	430	39	10,245	4,230
2017	Nov	24,369	789	22,861	620	21,563	2,806	425	45	10,372	4,197
2017	Dec	24,305	765	22,813	633	21,469	2,836	426	36	10,401	4,036

Milestone: 1
CMS Metric #: 6
CMS Metric Name: Any SUD Treatment
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	25,756	820	24,153	676	22,822	2,934	420	40	11,079	4,356
2018	Feb	25,211	738	23,723	660	22,335	2,876	613	41	10,881	4,140
2018	Mar	27,257	838	25,602	718	24,168	3,089	697	37	11,603	4,515
2018	Apr	27,430	837	25,779	694	24,472	2,958	697	58	11,888	4,380
2018	May	28,185	821	26,507	754	25,091	3,094	684	38	12,304	4,522
2018	Jun	27,401	765	25,828	725	24,394	3,007	681	30	12,260	4,241
2018	Jul	27,790	765	26,214	755	24,815	2,975	680	33	12,442	4,279
2018	Aug	29,430	817	27,695	809	26,195	3,235	746	49	13,138	4,542
2018	Sept	28,121	823	26,450	770	25,093	3,028	712	33	12,906	4,167
2018	Oct	29,762	803	28,060	805	26,554	3,208	737	43	13,862	4,495
2018	Nov	28,932	776	27,284	764	25,765	3,167	719	31	13,900	4,276
2018	Dec	28,842	745	27,291	779	25,702	3,140	687	24	13,934	4,176
2019	Jan	30,309	774	28,678	846	26,992	3,317	699	40	14,785	4,416
2019	Feb	30,436	784	28,813	821	27,206	3,230	725	26	14,810	4,409
2019	Mar	31,621	819	29,872	918	28,199	3,422	694	24	15,073	4,520
2019	Apr	32,621	812	30,850	930	29,163	3,458	732	23	16,276	4,627
2019	May	33,327	846	31,559	908	29,881	3,446	709	16	16,545	4,749
2019	Jun	32,408	731	30,735	929	29,035	3,373	736	6	16,303	4,571
2019	Jul	33,320	743	31,607	943	29,892	3,428	746	11	16,842	4,499
2019	Aug	33,553	695	31,821	993	30,049	3,504	777	10	17,007	4,457
2019	Sept	33,034	746	31,238	1,024	29,595	3,439	752	11	16,953	4,262
2019	Oct	34,545	769	32,706	1,052	30,977	3,568	773	16	17,895	4,513
2019	Nov	33,368	729	31,612	1,010	29,886	3,482	746	12	17,573	4,119
2019	Dec	33,881	727	32,125	1,013	30,386	3,495	769	8	17,967	4,126

Milestone: 1
CMS Metric #: 6
CMS Metric Name: Any SUD Treatment
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	36,329	796	34,342	1,159	32,607	3,722	791	21	19,463	4,418
2020	Feb	36,002	761	34,134	1,089	32,498	3,504	800	21	19,505	4,236
2020	Mar	36,628	772	34,820	1,017	33,249	3,379	802	17	20,011	4,355
2020	Apr	36,287	677	34,681	912	33,214	3,073	817	18	20,037	3,606
2020	May	38,843	679	37,197	932	35,680	3,163	889	32	21,244	3,444
2020	Jun	41,219	677	39,456	1,036	37,897	3,322	978	33	22,358	3,816
2020	Jul	42,435	693	40,630	1,075	39,029	3,406	1,073	39	23,337	4,327
2020	Aug	43,183	685	41,445	1,021	39,798	3,385	1,151	38	23,650	4,622
2020	Sept	43,936	739	42,022	1,127	40,496	3,440	1,249	51	24,384	5,241
2020	Oct	45,369	740	43,339	1,212	41,512	3,857	1,315	47	25,008	5,843
2020	Nov	45,409	712	43,299	1,254	41,417	3,992	1,378	35	25,191	5,614
2020	Dec	46,611	700	44,444	1,290	42,485	4,126	1,467	45	25,873	5,829

Milestone: 1
CMS Metric #: 7
CMS Metric Name: Early Intervention (no hierarchy)
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo
2016	Jan	19
2016	Feb	8
2016	Mar	31
2016	Apr	21
2016	May	15
2016	Jun	9
2016	Jul	14
2016	Aug	18
2016	Sept	24
2016	Oct	31
2016	Nov	30
2016	Dec	15
2017	Jan	37
2017	Feb	23
2017	Mar	35
2017	Apr	43
2017	May	42
2017	Jun	35
2017	Jul	60
2017	Aug	50
2017	Sept	41
2017	Oct	49
2017	Nov	33
2017	Dec	16
2018	Jan	40
2018	Feb	18
2018	Mar	17
2018	Apr	13
2018	May	18
2018	Jun	10
2018	Jul	13
2018	Aug	22
2018	Sept	17
2018	Oct	13
2018	Nov	33
2018	Dec	31

Year	Month	Demo
2019	Jan	41
2019	Feb	28
2019	Mar	29
2019	Apr	38
2019	May	34
2019	Jun	37
2019	Jul	51
2019	Aug	51
2019	Sept	30
2019	Oct	49
2019	Nov	23
2019	Dec	47
2020	Jan	44
2020	Feb	41
2020	Mar	0
2020	Apr	0
2020	May	0
2020	Jun	0
2020	Jul	0
2020	Aug	0
2020	Sept	0
2020	Oct	0
2020	Nov	0
2020	Dec	0

Milestone: 1
CMS Metric #: 8
CMS Metric Name: Outpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	10,332	584	9,536	185	8,554	1,778	167	10	3,465	2,872
2016	Feb	10,606	562	9,826	194	8,756	1,850	166	15	3,599	2,910
2016	Mar	11,491	601	10,612	229	9,527	1,964	189	9	3,944	3,206
2016	Apr	11,659	594	10,778	215	9,758	1,901	193	8	4,092	3,121
2016	May	11,884	611	10,926	274	9,848	2,036	215	11	4,183	3,206
2016	Jun	11,857	543	11,026	223	9,948	1,909	201	12	4,227	3,160
2016	Jul	11,265	514	10,497	189	9,399	1,866	190	6	3,965	3,044
2016	Aug	12,707	610	11,772	250	10,665	2,042	194	11	4,501	3,359
2016	Sept	12,084	597	11,201	234	10,130	1,954	180	13	4,349	3,336
2016	Oct	11,933	575	11,101	217	10,116	1,817	166	27	4,565	3,143
2016	Nov	12,227	586	11,383	229	10,373	1,854	176	21	4,630	3,226
2016	Dec	11,770	546	10,957	227	10,014	1,756	170	25	4,723	3,193
2017	Jan	12,496	554	11,661	236	10,617	1,879	174	24	4,941	3,339
2017	Feb	12,245	572	11,429	207	10,475	1,770	230	24	4,814	3,143
2017	Mar	13,433	579	12,571	549	11,522	1,911	246	36	5,391	3,331
2017	Apr	12,918	547	12,121	208	11,170	1,748	225	27	5,302	3,221
2017	May	13,941	599	13,034	250	12,008	1,933	233	30	5,648	3,306
2017	Jun	13,980	570	13,077	280	12,036	1,944	246	42	5,747	3,372
2017	Jul	13,342	512	12,527	263	11,543	1,799	222	31	5,735	3,184
2017	Aug	15,160	574	14,237	300	13,057	2,103	286	24	6,509	3,727
2017	Sept	14,077	548	13,212	272	12,108	1,969	260	18	6,169	3,495
2017	Oct	14,833	569	13,902	320	12,798	2,035	248	21	6,715	3,702
2017	Nov	14,630	562	13,719	306	12,671	1,959	255	23	6,685	3,673
2017	Dec	14,121	537	13,246	301	12,179	1,942	242	20	6,466	3,556

Milestone: 1
CMS Metric #: 8
CMS Metric Name: Outpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	15,636	589	14,663	317	13,609	2,027	238	22	7,191	3,828
2018	Feb	15,096	540	14,181	324	13,127	1,969	357	21	7,009	3,667
2018	Mar	16,347	597	15,327	359	14,199	2,148	406	20	7,615	3,997
2018	Apr	16,332	595	15,339	333	14,286	2,046	404	35	7,728	3,873
2018	May	16,400	580	15,407	354	14,346	2,054	382	23	7,811	3,957
2018	Jun	15,310	534	14,374	363	13,293	2,017	344	20	7,320	3,700
2018	Jul	15,531	522	14,591	384	13,521	2,010	357	20	7,450	3,728
2018	Aug	16,501	559	15,493	394	14,278	2,223	403	34	7,834	3,973
2018	Sept	15,350	571	14,399	336	13,317	2,033	374	26	7,455	3,597
2018	Oct	16,856	581	15,829	401	14,618	2,238	424	29	8,222	3,937
2018	Nov	16,187	573	15,194	370	13,997	2,190	409	22	8,063	3,752
2018	Dec	15,771	548	14,843	365	13,626	2,145	386	18	7,914	3,668
2019	Jan	16,898	555	15,911	430	14,579	2,319	381	22	8,383	3,864
2019	Feb	17,101	578	16,123	399	14,821	2,280	408	17	8,523	3,864
2019	Mar	17,466	595	16,416	455	15,103	2,363	399	16	8,631	3,965
2019	Apr	18,858	606	17,790	461	16,507	2,351	435	17	9,772	4,030
2019	May	19,665	617	18,612	435	17,319	2,346	429	13	10,401	4,157
2019	Jun	18,784	547	17,790	445	16,486	2,298	450	4	10,138	4,006
2019	Jul	19,341	541	18,367	431	17,041	2,300	479	7	10,435	3,959
2019	Aug	19,803	525	18,810	463	17,448	2,355	494	4	10,673	3,904
2019	Sept	19,439	535	18,410	494	17,117	2,322	480	7	10,586	3,715
2019	Oct	20,876	572	19,769	533	18,411	2,465	498	11	11,443	3,986
2019	Nov	19,748	534	18,738	473	17,406	2,342	461	7	11,149	3,635
2019	Dec	19,975	525	18,974	473	17,660	2,315	485	6	11,380	3,633

Milestone: 1
CMS Metric #: 8
CMS Metric Name: Outpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	22,707	560	21,544	597	20,173	2,534	506	12	12,807	3,885
2020	Feb	22,518	540	21,426	550	20,088	2,430	537	13	12,931	3,751
2020	Mar	23,406	576	22,349	479	21,077	2,329	557	11	13,876	3,856
2020	Apr	23,376	513	22,450	409	21,266	2,110	536	14	13,949	3,228
2020	May	24,555	494	23,668	384	22,466	2,089	616	24	14,698	3,072
2020	Jun	26,540	494	25,585	457	24,286	2,254	718	24	15,716	3,385
2020	Jul	27,269	493	26,267	504	24,966	2,303	781	31	16,406	3,818
2020	Aug	27,732	492	26,760	476	25,441	2,291	827	30	16,528	4,095
2020	Sept	28,536	520	27,463	541	26,184	2,352	894	43	17,181	4,691
2020	Oct	29,479	543	28,294	607	26,762	2,717	931	36	17,595	5,258
2020	Nov	29,301	517	28,045	667	26,426	2,875	990	28	17,716	5,070
2020	Dec	30,277	502	29,034	668	27,357	2,920	1,050	31	18,289	5,291

Milestone: 1
CMS Metric #: 9
CMS Metric Name: Intensive Outpatient and Partial Hospitalization Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	242	7	228	1	218	24	4	0	129	120
2016	Feb	258	10	244	0	236	22	4	0	134	132
2016	Mar	225	5	217	0	205	20	1	0	131	132
2016	Apr	245	5	238	0	225	20	2	1	118	142
2016	May	254	2	242	2	231	23	3	0	124	132
2016	Jun	262	9	248	2	234	28	3	0	133	139
2016	Jul	244	12	224	1	226	18	3	0	109	136
2016	Aug	283	7	266	1	255	28	3	0	140	168
2016	Sept	289	6	266	0	267	22	1	0	153	142
2016	Oct	328	4	310	0	301	27	1	0	183	188
2016	Nov	284	4	272	1	263	21	2	2	165	174
2016	Dec	288	2	276	0	268	20	3	2	162	173
2017	Jan	252	0	233	0	234	18	6	0	141	168
2017	Feb	265	1	255	0	249	16	11	1	152	156
2017	Mar	329	5	322	0	303	26	10	1	192	188
2017	Apr	329	4	324	0	298	31	5	0	182	175
2017	May	349	3	343	0	316	33	12	0	197	182
2017	Jun	364	2	357	2	341	23	10	1	188	180
2017	Jul	346	1	343	1	327	19	9	0	173	156
2017	Aug	399	1	393	2	378	21	9	2	205	172
2017	Sept	366	2	362	2	344	22	6	1	192	188
2017	Oct	374	1	369	2	352	22	7	0	199	186
2017	Nov	334	5	327	1	317	17	7	1	177	153
2017	Dec	322	3	315	1	300	22	7	0	149	149

Milestone: 1
CMS Metric #: 9
CMS Metric Name: Intensive Outpatient and Partial Hospitalization Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	361	7	350	1	342	19	6	0	184	173
2018	Feb	376	4	367	1	361	15	7	0	192	173
2018	Mar	360	6	352	1	344	16	9	0	192	185
2018	Apr	369	7	353	1	356	13	10	0	192	173
2018	May	356	8	345	0	341	15	8	0	172	167
2018	Jun	361	5	354	0	347	14	4	0	173	170
2018	Jul	352	4	348	0	339	13	5	1	158	159
2018	Aug	354	2	351	0	339	15	6	0	150	161
2018	Sept	302	2	299	0	286	16	3	0	134	136
2018	Oct	357	7	346	1	341	16	5	1	163	141
2018	Nov	368	4	360	1	346	22	7	0	161	150
2018	Dec	372	3	367	1	352	20	5	1	172	127
2019	Jan	330	1	327	1	315	15	6	1	151	123
2019	Feb	321	3	317	0	311	10	12	1	149	124
2019	Mar	353	4	348	1	340	13	10	1	170	139
2019	Apr	336	2	333	1	320	16	10	0	161	156
2019	May	384	2	382	0	368	16	15	0	192	170
2019	Jun	369	17	352	0	353	16	9	0	188	170
2019	Jul	364	1	363	0	356	8	9	0	213	54
2019	Aug	388	3	385	0	372	16	11	0	215	59
2019	Sept	387	7	379	1	378	9	13	1	180	52
2019	Oct	457	7	450	0	449	8	14	0	219	57
2019	Nov	428	7	420	1	418	10	10	0	206	49
2019	Dec	474	14	459	1	465	9	12	0	215	51

Milestone: 1
CMS Metric #: 9
CMS Metric Name: Intensive Outpatient and Partial Hospitalization Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	530	10	519	1	516	14	11	0	243	54
2020	Feb	536	15	517	3	522	14	11	1	216	56
2020	Mar	563	9	552	2	554	9	12	0	228	56
2020	Apr	347	5	340	2	341	6	8	1	130	49
2020	May	449	6	441	2	444	5	9	1	184	58
2020	Jun	512	9	502	1	504	8	13	1	207	64
2020	Jul	589	14	573	2	578	11	19	1	244	74
2020	Aug	656	20	633	3	640	16	21	2	274	96
2020	Sept	711	20	688	3	689	22	25	1	313	98
2020	Oct	735	16	713	4	713	22	25	1	327	102
2020	Nov	736	20	711	4	706	30	28	2	320	115
2020	Dec	782	17	757	6	750	32	21	3	341	118

Milestone: 1
CMS Metric #: 10
CMS Metric Name: Residential and Inpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	945	10	859	36	842	103	5	2	321	47
2016	Feb	798	8	706	44	708	90	6	0	261	45
2016	Mar	793	13	715	39	706	87	5	0	282	46
2016	Apr	727	10	672	32	636	91	5	0	235	35
2016	May	726	10	665	45	614	112	4	1	227	50
2016	Jun	726	10	674	35	629	97	4	1	199	49
2016	Jul	896	14	829	39	796	100	5	0	290	48
2016	Aug	1,110	9	1,064	34	1,022	88	6	2	495	75
2016	Sept	1,163	7	1,112	31	1,077	86	6	1	509	50
2016	Oct	1,143	11	1,068	28	1,048	95	2	2	504	55
2016	Nov	1,108	6	1,036	29	1,027	81	4	3	487	56
2016	Dec	1,157	5	1,088	31	1,070	87	2	5	512	66
2017	Jan	959	7	893	27	878	81	3	3	464	56
2017	Feb	977	6	926	27	903	74	6	1	459	40
2017	Mar	1,168	5	1,119	31	1,087	81	6	2	563	67
2017	Apr	1,031	5	984	32	939	92	36	1	502	44
2017	May	1,050	7	987	34	963	87	24	4	529	56
2017	Jun	1,033	6	983	35	957	76	33	3	502	60
2017	Jul	1,122	2	1,061	37	1,034	88	23	1	555	52
2017	Aug	1,087	4	1,030	32	994	93	21	2	549	63
2017	Sept	1,022	5	967	29	948	74	22	2	522	72
2017	Oct	950	3	907	27	875	75	15	3	470	51
2017	Nov	877	7	835	30	803	74	18	0	470	49
2017	Dec	894	4	851	27	821	73	29	2	460	59

Milestone: 1
CMS Metric #: 10
CMS Metric Name: Residential and Inpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	849	6	809	27	773	76	24	1	443	65
2018	Feb	824	8	789	24	747	77	30	2	421	47
2018	Mar	1,046	4	994	37	958	88	42	6	474	68
2018	Apr	1,126	9	1,068	32	1,044	82	38	4	546	56
2018	May	1,103	8	1,040	34	1,022	81	25	4	490	70
2018	Jun	1,075	4	1,029	28	1,003	72	29	2	516	60
2018	Jul	1,075	8	1,018	37	1,002	73	26	2	495	92
2018	Aug	1,128	5	1,075	38	1,043	85	32	3	508	81
2018	Sept	1,067	3	1,015	43	975	92	31	2	460	71
2018	Oct	1,199	3	1,142	37	1,116	83	17	4	550	88
2018	Nov	1,154	9	1,082	42	1,060	94	14	3	534	80
2018	Dec	1,094	7	1,044	39	1,019	75	10	1	499	77
2019	Jan	1,214	7	1,167	37	1,130	84	6	2	560	89
2019	Feb	1,119	6	1,065	47	1,024	95	5	2	494	66
2019	Mar	1,242	4	1,181	56	1,130	112	8	2	524	87
2019	Apr	1,203	6	1,139	56	1,094	109	16	2	505	94
2019	May	1,229	10	1,165	53	1,122	107	7	2	519	90
2019	Jun	1,193	7	1,128	58	1,088	105	17	0	492	100
2019	Jul	1,284	8	1,222	53	1,189	95	22	0	567	103
2019	Aug	1,290	3	1,230	55	1,198	92	23	1	553	90
2019	Sept	1,316	7	1,248	60	1,220	96	15	0	553	91
2019	Oct	1,344	6	1,283	55	1,241	103	31	1	566	83
2019	Nov	1,324	4	1,269	50	1,229	95	24	1	562	93
2019	Dec	1,440	2	1,390	47	1,341	99	27	0	626	114

Milestone: 1
CMS Metric #: 10
CMS Metric Name: Residential and Inpatient Services
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	1,566	0	1,506	59	1,450	116	29	0	722	123
2020	Feb	1,482	1	1,431	50	1,378	104	23	1	673	122
2020	Mar	1,532	4	1,476	51	1,421	111	37	2	719	133
2020	Apr	1,373	8	1,315	50	1,280	93	32	2	638	107
2020	May	1,766	6	1,713	47	1,672	94	40	1	849	118
2020	Jun	1,992	3	1,927	61	1,873	119	44	2	1,004	117
2020	Jul	2,091	7	2,026	56	1,977	114	39	4	1,025	138
2020	Aug	2,057	5	1,995	57	1,919	138	47	2	985	180
2020	Sept	2,065	5	2,003	57	1,953	112	41	4	1,011	178
2020	Oct	2,278	7	2,215	53	2,149	129	57	5	1,138	176
2020	Nov	2,194	7	2,123	61	2,057	137	46	2	1,094	185
2020	Dec	2,126	4	2,060	55	1,992	134	54	6	1,033	176

Milestone: 1
CMS Metric #: 11
CMS Metric Name: Withdrawal Management
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	454	1	415	3	423	31	1	1	305	22
2016	Feb	392	4	344	3	377	15	0	0	229	17
2016	Mar	366	0	342	2	347	19	4	1	228	17
2016	Apr	348	0	335	1	318	30	2	0	202	14
2016	May	313	0	302	5	273	40	0	1	170	25
2016	Jun	307	0	300	0	280	27	2	0	155	19
2016	Jul	444	0	435	0	416	28	0	0	265	14
2016	Aug	661	0	652	3	638	23	3	2	454	43
2016	Sept	657	1	643	1	636	21	2	2	462	30
2016	Oct	709	1	676	1	673	36	0	2	488	30
2016	Nov	685	0	651	2	656	29	4	3	464	38
2016	Dec	670	1	641	2	644	26	0	5	472	34
2017	Jan	641	1	610	2	622	19	1	2	443	36
2017	Feb	617	1	600	1	603	14	2	2	428	23
2017	Mar	752	0	735	2	729	23	0	2	512	37
2017	Apr	723	0	708	5	693	30	1	0	472	29
2017	May	757	0	734	4	730	27	1	4	499	35
2017	Jun	747	1	738	5	728	19	1	2	481	31
2017	Jul	824	0	804	5	794	30	0	1	532	32
2017	Aug	791	1	766	3	756	35	1	2	511	37
2017	Sept	748	1	726	2	731	17	0	1	488	37
2017	Oct	722	0	710	1	706	16	3	2	447	35
2017	Nov	635	0	628	6	618	17	4	0	429	33
2017	Dec	686	0	680	0	669	17	6	2	442	43

Milestone: 1
CMS Metric #: 11
CMS Metric Name: Withdrawal Management
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	676	3	664	3	649	27	5	0	442	34
2018	Feb	596	3	589	2	577	19	5	1	399	15
2018	Mar	766	1	748	6	738	28	10	5	462	45
2018	Apr	893	0	875	2	870	23	8	4	555	45
2018	May	856	2	834	3	838	18	5	4	477	49
2018	Jun	806	0	796	3	791	15	8	2	469	45
2018	Jul	832	1	814	5	815	17	10	2	468	74
2018	Aug	874	1	856	5	846	28	9	3	486	67
2018	Sept	791	0	781	5	767	24	6	2	433	53
2018	Oct	947	0	930	5	926	21	10	3	531	71
2018	Nov	923	1	896	4	897	26	12	2	532	63
2018	Dec	776	2	768	3	759	17	8	1	435	57
2019	Jan	807	0	804	1	788	19	4	1	477	62
2019	Feb	748	0	744	1	732	16	3	1	421	49
2019	Mar	787	3	782	3	759	28	6	2	441	54
2019	Apr	789	1	785	2	761	28	15	2	438	64
2019	May	811	2	805	3	772	39	4	2	449	66
2019	Jun	762	0	758	3	738	24	13	0	412	68
2019	Jul	843	1	833	6	822	21	12	0	473	72
2019	Aug	849	1	839	4	825	24	15	1	475	64
2019	Sept	847	0	839	7	821	26	10	0	461	67
2019	Oct	882	1	873	5	861	21	23	0	475	59
2019	Nov	844	0	840	3	820	24	15	1	456	55
2019	Dec	950	0	945	4	920	30	19	0	511	66

Milestone: 1
CMS Metric #: 11
CMS Metric Name: Withdrawal Management
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	1,024	1	1,015	6	995	29	19	0	569	79
2020	Feb	963	0	960	2	938	25	19	0	541	76
2020	Mar	1,017	2	1,010	4	986	31	34	0	594	81
2020	Apr	955	0	949	3	930	25	28	0	538	61
2020	May	1,267	0	1,263	2	1,246	21	34	1	755	77
2020	Jun	1,432	1	1,421	8	1,394	38	39	1	875	79
2020	Jul	1,524	1	1,513	6	1,490	34	35	2	905	92
2020	Aug	1,530	0	1,520	8	1,481	49	45	2	886	123
2020	Sept	1,531	1	1,520	7	1,492	39	40	3	894	130
2020	Oct	1,700	1	1,693	4	1,655	45	53	5	1,022	130
2020	Nov	1,644	2	1,632	8	1,600	44	38	2	966	147
2020	Dec	1,586	0	1,572	8	1,534	52	44	5	903	135

Milestone: 1
CMS Metric #: 12
CMS Metric Name: Medication-Assisted Treatment (MAT)
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2016	Jan	3,352	95	3,254	3	3,341	11	67	0	1,807	298
2016	Feb	3,417	107	3,308	2	3,411	6	79	0	1,788	328
2016	Mar	3,684	96	3,586	2	3,675	9	84	0	2,075	383
2016	Apr	3,780	77	3,701	2	3,771	9	93	1	2,171	357
2016	May	3,954	89	3,863	2	3,941	13	104	1	2,282	353
2016	Jun	4,109	92	4,015	2	4,097	12	105	1	2,386	377
2016	Jul	4,119	81	4,035	3	4,109	10	95	3	2,324	375
2016	Aug	4,463	85	4,375	3	4,450	13	114	5	2,573	422
2016	Sept	4,614	88	4,522	4	4,602	12	113	8	2,634	439
2016	Oct	4,755	89	4,663	2	4,747	8	101	9	2,857	481
2016	Nov	4,913	91	4,820	2	4,907	6	95	9	2,969	493
2016	Dec	5,147	91	5,050	4	5,140	7	92	8	3,062	497
2017	Jan	5,439	97	5,336	3	5,432	7	93	10	3,235	538
2017	Feb	5,525	95	5,426	2	5,516	9	116	12	3,192	500
2017	Mar	6,100	88	6,008	3	6,089	11	131	14	3,620	585
2017	Apr	6,249	102	6,143	3	6,242	7	127	10	3,696	589
2017	May	6,580	108	6,469	2	6,575	5	133	15	3,983	619
2017	Jun	6,660	98	6,553	8	6,648	12	131	16	4,055	649
2017	Jul	6,774	97	6,673	4	6,763	11	132	10	4,034	605
2017	Aug	7,280	103	7,173	4	7,271	9	153	7	4,546	778
2017	Sept	8,427	102	8,299	19	8,340	87	197	9	5,581	782
2017	Oct	9,479	111	9,335	23	9,358	121	200	16	6,635	868
2017	Nov	9,757	120	9,600	29	9,627	130	200	18	6,843	901
2017	Dec	10,323	125	10,153	37	10,155	168	207	12	7,149	857

Milestone: 1
CMS Metric #: 12
CMS Metric Name: Medication-Assisted Treatment (MAT)
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2018	Jan	10,895	132	10,724	33	10,722	173	195	12	7,683	984
2018	Feb	10,781	119	10,620	36	10,613	168	323	16	7,503	900
2018	Mar	11,524	136	11,342	40	11,345	179	353	14	8,023	989
2018	Apr	11,858	131	11,684	38	11,667	191	366	15	8,306	1,006
2018	May	12,489	129	12,315	44	12,260	229	391	10	8,834	1,070
2018	Jun	12,660	132	12,483	44	12,412	248	396	11	9,002	1,018
2018	Jul	13,012	125	12,829	53	12,757	255	419	10	9,185	1,092
2018	Aug	13,630	146	13,419	55	13,357	273	445	15	9,726	1,128
2018	Sept	13,575	127	13,380	62	13,303	272	454	11	9,779	1,044
2018	Oct	14,321	128	14,127	62	14,043	278	466	9	10,362	1,162
2018	Nov	14,571	110	14,392	59	14,293	278	451	12	10,656	1,079
2018	Dec	14,669	106	14,501	59	14,383	286	431	7	10,795	1,045
2019	Jan	15,161	111	14,983	64	14,875	286	440	16	11,297	1,148
2019	Feb	15,400	107	15,221	68	15,115	285	437	7	11,353	1,104
2019	Mar	15,996	122	15,798	73	15,698	298	416	8	11,506	1,177
2019	Apr	16,502	111	16,317	68	16,197	305	425	7	12,612	1,275
2019	May	16,839	114	16,650	75	16,514	325	423	4	12,831	1,275
2019	Jun	16,716	106	16,529	81	16,393	323	446	4	12,672	1,274
2019	Jul	17,104	106	16,908	86	16,769	335	475	4	13,084	1,264
2019	Aug	17,211	91	17,029	90	16,872	339	467	4	13,284	1,247
2019	Sept	17,162	90	16,972	95	16,824	338	465	3	13,295	1,222
2019	Oct	17,911	85	17,731	91	17,568	343	483	9	13,962	1,276
2019	Nov	17,919	88	17,734	93	17,566	353	478	5	13,904	1,133
2019	Dec	18,249	90	18,064	93	17,876	373	483	3	14,210	1,216

Milestone: 1
CMS Metric #: 12
CMS Metric Name: Medication-Assisted Treatment (MAT)
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	Medicaid Only	Dual Eligible	Pregnant	Criminally Involved	OUD	MRO
2020	Jan	18,925	99	18,733	86	18,572	353	491	8	15,311	1,270
2020	Feb	19,176	105	18,991	77	18,847	329	520	10	15,410	1,147
2020	Mar	19,806	102	19,635	68	19,565	241	546	9	15,821	1,211
2020	Apr	20,504	101	20,337	64	20,271	233	533	9	16,281	1,005
2020	May	21,493	87	21,338	62	21,263	230	553	14	17,165	979
2020	Jun	22,302	89	22,138	64	22,107	195	594	17	17,960	1,089
2020	Jul	23,033	94	22,867	67	22,846	187	651	15	18,777	1,284
2020	Aug	23,690	97	23,512	77	23,522	168	715	20	19,262	1,449
2020	Sept	24,323	100	24,132	79	24,127	196	774	21	19,868	1,695
2020	Oct	24,798	102	24,621	72	24,629	169	842	17	20,160	1,808
2020	Nov	25,282	103	25,064	88	25,076	206	905	21	20,290	1,706
2020	Dec	26,001	113	25,734	94	25,759	242	971	20	20,846	1,792

Milestone: 5
CMS Metric #: 23
CMS Metric Name: Emergency Department Utilization for SUD per 1,000 Medicaid Beneficiaries
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	OUD	MRO
2016	Jan	5	0.2	11	2	168	16
2016	Feb	5	0.2	10	2	119	13
2016	Mar	7	0.3	14	2	141	19
2016	Apr	6	0.2	13	2	126	16
2016	May	8	0.3	16	2	142	18
2016	Jun	6	0.2	13	2	100	16
2016	Jul	6	0.2	13	2	91	17
2016	Aug	6	0.3	13	2	94	14
2016	Sept	6	0.2	12	2	78	15
2016	Oct	6	0.2	11	2	75	15
2016	Nov	5	0.2	11	2	67	14
2016	Dec	5	0.2	11	2	66	14
2017	Jan	6	0.3	12	1	68	14
2017	Feb	6	0.3	11	2	62	13
2017	Mar	7	0.3	13	2	74	17
2017	Apr	10	0.4	20	2	117	25
2017	May	10	0.3	21	2	126	22
2017	Jun	10	0.4	20	2	103	23
2017	Jul	10	0.4	21	3	107	26
2017	Aug	10	0.3	19	4	107	28
2017	Sept	8	0.4	16	2	84	18
2017	Oct	7	0.3	14	2	74	18
2017	Nov	7	0.3	14	2	69	19
2017	Dec	7	0.2	14	2	62	17
2018	Jan	7	0.2	14	3	65	18
2018	Feb	7	0.4	13	3	59	16
2018	Mar	7	0.3	15	2	64	16
2018	Apr	7	0.2	14	2	60	16
2018	May	8	0.3	15	2	61	17
2018	Jun	7	0.2	14	2	57	16
2018	Jul	7	0.2	14	3	56	15
2018	Aug	8	0.3	15	3	65	16
2018	Sept	6	0.3	13	3	51	14
2018	Oct	6	0.2	12	3	48	14
2018	Nov	5	0.2	11	2	43	11
2018	Dec	6	0.2	12	2	44	11

Milestone: 5
CMS Metric #: 23
CMS Metric Name: Emergency Department Utilization for SUD per 1,000 Medicaid Beneficiaries
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	OUD	MRO
2019	Jan	6	0.2	12	2	45	13
2019	Feb	5	0.2	11	2	42	10
2019	Mar	6	0.2	12	2	46	13
2019	Apr	6	0.2	13	3	49	15
2019	May	7	0.2	14	3	54	16
2019	Jun	6	0.2	13	3	50	15
2019	Jul	7	0.2	14	3	56	17
2019	Aug	7	0.2	14	3	55	15
2019	Sept	6	0.2	13	3	49	15
2019	Oct	6	0.2	13	3	48	14
2019	Nov	6	0.2	12	2	46	12
2019	Dec	6	0.2	12	2	45	13
2020	Jan	7	0.3	15	3	56	15
2020	Feb	6	0.2	13	2	50	13
2020	Mar	6	0.2	12	2	49	11
2020	Apr	5	0.1	10	2	37	12
2020	May	7	0.2	13	2	54	14
2020	Jun	7	0.2	14	3	60	14
2020	Jul	7	0.2	14	3	61	16
2020	Aug	7	0.2	14	3	65	15
2020	Sept	7	0.3	14	3	60	16
2020	Oct	7	0.2	12	4	55	14
2020	Nov	6	0.2	11	4	51	15
2020	Dec	6	0.2	11	4	46	12

Milestone: Other SUD-related metrics
CMS Metric #: 24
CMS Metric Name: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	OUD	MRO
2016	Jan	3	0.1	7	4	143	8
2016	Feb	3	0.1	6	4	107	7
2016	Mar	3	0.1	6	4	89	8
2016	Apr	3	0.1	6	4	76	6
2016	May	3	0.1	7	4	79	8
2016	Jun	3	0.1	6	4	58	7
2016	Jul	3	0.1	6	5	65	7
2016	Aug	4	0.1	7	5	79	9
2016	Sept	4	0.1	7	5	72	8
2016	Oct	4	0.1	7	6	69	8
2016	Nov	3	0.1	6	6	63	8
2016	Dec	3	0.1	6	6	65	8
2017	Jan	3	0.2	6	5	63	9
2017	Feb	4	0.3	7	5	63	9
2017	Mar	4	0.2	8	6	82	12
2017	Apr	5	0.2	10	5	97	12
2017	May	6	0.2	11	6	111	12
2017	Jun	5	0.2	11	6	97	13
2017	Jul	6	0.1	11	7	100	13
2017	Aug	6	0.2	11	8	103	15
2017	Sept	5	0.2	9	6	72	11
2017	Oct	4	0.2	7	7	53	9
2017	Nov	4	0.1	7	8	47	8
2017	Dec	4	0.1	7	8	52	8
2018	Jan	4	0.2	7	9	49	8
2018	Feb	4	0.1	6	8	43	6
2018	Mar	4	0.1	7	9	47	8
2018	Apr	4	0.1	7	9	45	6
2018	May	4	0.1	7	11	43	7
2018	Jun	4	0.1	7	10	43	6
2018	Jul	5	0.1	8	14	47	7
2018	Aug	5	0.1	9	16	51	8
2018	Sept	5	0.1	8	15	44	7
2018	Oct	5	0.1	8	16	44	7
2018	Nov	4	0.1	7	12	39	6
2018	Dec	4	0.1	7	10	39	6

Milestone: Other SUD-related metrics
CMS Metric #: 24
CMS Metric Name: Inpatient Stays for SUD per 1,000 Medicaid Beneficiaries
Metric Type: CMS-constructed
Reporting Category: Other monthly and quarterly metrics

Year	Month	Demo	Age <18	Age 18-64	Age 65+	OUD	MRO
2019	Jan	5	0.1	8	15	43	6
2019	Feb	4	0.1	7	13	37	6
2019	Mar	4	0.1	7	13	39	6
2019	Apr	5	0.1	8	17	39	7
2019	May	5	0.1	8	16	41	7
2019	Jun	4	0.1	7	13	35	6
2019	Jul	5	0.1	9	18	43	7
2019	Aug	6	0.1	9	19	42	7
2019	Sept	5	0.1	8	20	38	6
2019	Oct	6	0.1	9	20	40	7
2019	Nov	5	0.1	8	20	38	6
2019	Dec	6	0.1	8	20	38	7
2020	Jan	6	0.2	9	22	42	8
2020	Feb	5	0.1	7	16	35	6
2020	Mar	6	0.1	8	23	38	5
2020	Apr	4	0.1	6	17	30	8
2020	May	5	0.1	7	18	38	9
2020	Jun	5	0.1	7	14	37	8
2020	Jul	5	0.1	8	19	40	8
2020	Aug	5	0.1	8	18	42	7
2020	Sept	5	0.1	8	19	43	8
2020	Oct	5	0.1	8	19	44	7
2020	Nov	5	0.1	7	18	40	8
2020	Dec	5	0.1	7	20	42	8

Milestone: Other SUD-related metrics
CMS Metric #: 28
CMS Metric Name: SUD Spending
Metric Type: CMS-constructed
Reporting Category: Other annual metrics

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Rate	360,740,457	529,748,093	542,967,092	622,589,840	795,621,989

Milestone: Other SUD-related metrics
CMS Metric #: 29
CMS Metric Name: SUD Spending within IMDs
Metric Type: CMS-constructed
Reporting Category: Other annual metrics

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Rate	14,280,127	33,772,269	24,110,368	20,209,259	20,749,248

Milestone: Other SUD-related metrics
CMS Metric #: 30
CMS Metric Name: Per Capita SUD Spending
Metric Type: CMS-constructed
Reporting Category: Other annual metrics

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	360,740,457	529,748,093	542,967,092	622,589,840	795,621,989
Denominator	83687	93778	102749	108265	119121
Rate	4,311	5,649	5,284	5,751	6,679

Milestone: Other SUD-related metrics
CMS Metric #: 31
CMS Metric Name: Per Capita SUD Spending within IMDs
Metric Type: CMS-constructed
Reporting Category: Other annual metrics

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	14,280,127	33,772,269	24,110,368	20,209,259	20,749,248
Denominator	2662	4271	4052	3271	3482
Rate	5,364	7,907	5,950	6,178	5,959

Milestone: Other SUD-related metrics

CMS Metric #: 32

CMS Metric Name: Access to Preventive/ Ambulatory Health Services for Adult Medicaid Beneficiaries with SUD [Adjusted HEDIS measure]

Metric Type: Established quality measure

Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	28,884	32,985	34,588	39,562	52,509
Denominator	32,168	37,202	38,768	44,222	60,316
Rate	89.8%	88.7%	89.2%	89.5%	87.1%

Milestone: 2
CMS Metric #: 36
CMS Metric Name: Average Length of Stay in IMDs
Metric Type: CMS-constructed
Reporting Category: Other annual metrics

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	29,653	50,932	27,417	21,128	23,616
Denominator	5,484	10,246	5,783	4,631	5,014
Rate	5.4	5.0	4.7	4.6	4.7

Milestone: 5

CMS Metric #: 18

CMS Metric Name: Use of Opioids at High Dosage in Persons Without Cancer (OHD-AD), [PQA, NQF #2940; Medicaid Adult Core Set]

Metric Type: Established quality measure

Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	3,268	2,409	1,773	1,418	1,354
Denominator	57,634	48,011	33,811	28,989	30,649
Rate	5.7%	5.0%	5.2%	4.9%	4.4%

Milestone: 5
CMS Metric #: 19
CMS Metric Name: Use of Opioids from Multiple Providers in Persons Without Cancer (OMP), [PQA; NQF #2950]
Metric Type: Established quality measure
Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	1,624	1,167	400	307	262
Denominator	65,218	54,140	37,467	32,619	34,505
Rate	2.5%	2.2%	1.1%	0.9%	0.8%

Milestone: 5

CMS Metric #: 20

CMS Metric Name: Use of Opioids at High Dosage and from Multiple Providers in Persons Without Cancer (OHDMP) [PQA, NQF #2951]

Metric Type: Established quality measure

Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	53	35	9	10	8
Denominator	57,634	48,011	33,811	28,989	30,649
Rate	0.09%	0.07%	0.03%	0.03%	0.03%

Milestone: 5

CMS Metric #: 21

CMS Metric Name: Concurrent Use of Opioids and Benzodiazepines (COB-AD), [PQA, NQF #3389; Medicaid Adult Core Set]

Metric Type: Established quality measure

Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	14,404	10,528	6,606	4,530	4,114
Denominator	67,492	55,826	38,746	33,534	36,480
Rate	21.3%	18.9%	17.0%	13.5%	11.3%

Milestone: 1
CMS Metric #: 22
CMS Metric Name: Continuity of Pharmacotherapy for Opioid Use Disorder, [USC; NQF #3175]
Metric Type: Established quality measure
Reporting Category: Annual metrics that are established quality measures

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	1,012	1,739	3,775	5,033	6,861
Denominator	5,118	9,341	15,291	19,224	25,225
Rate	19.8%	18.6%	24.7%	26.2%	27.2%

Milestone: 1
CMS Metric #: 15a
CMS Metric Name: Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD) - Initiation of AOD Treatment
Metric Type: Established quality measure
Reporting Category: Annual metrics that are established quality measures

Metric 15a1 Initiation of AOD Treatment - Alcohol abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	5,505	6,394	6,065	6,120	6,946
Denominator	10,624	11,366	11,374	11,758	13,150
Rate	51.8%	56.3%	53.3%	52.0%	52.8%

Metric 15a2 Initiation of AOD Treatment - Opiod abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	3,405	4,588	4,668	4,639	5,958
Denominator	6,502	7,535	7,373	7,642	9,245
Rate	52.4%	60.9%	63.3%	60.7%	64.4%

Metric 15a3 Initiation of AOD Treatment - Other drug abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	5,415	7,132	7,312	7,634	8,964
Denominator	12,033	13,894	14,610	15,042	17,440
Rate	45.0%	51.3%	50.0%	50.8%	51.4%

Metric 15a4 Initiation of AOD Treatment - Total AOD abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	12,314	15,337	15,420	15,785	18,401
Denominator	24,956	27,973	28,688	29,634	33,838
Rate	49.3%	54.8%	53.8%	53.3%	54.4%

Milestone: 1
CMS Metric #: 15b
CMS Metric Name: Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (IET-AD) - Engagement of AOD Treatment
Metric Type: Established quality measure
Reporting Category: Annual metrics that are established quality measures

Metric 15b1 Engagement of AOD Treatment - Alcohol abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	980	1,196	1,383	1,502	1,731
Denominator	5,505	6,394	6,065	6,120	6,946
Rate	17.8%	18.7%	22.8%	24.5%	24.9%

Metric 15b2 Engagement of AOD Treatment - Opiod abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	996	1,825	2,003	2,266	3,254
Denominator	3,405	4,588	4,668	4,639	5,958
Rate	29.3%	39.8%	42.9%	48.8%	54.6%

Metric 15b3 Engagement of AOD Treatment - Other drug abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	919	1,292	1,564	1,903	2,222
Denominator	5,415	7,132	7,312	7,634	8,964
Rate	17.0%	18.1%	21.4%	24.9%	24.8%

Metric 15b4 Engagement of AOD Treatment - Total AOD abuse or dependence

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	2,686	3,981	4,612	5,237	6,443
Denominator	12,314	15,337	15,420	15,785	18,401
Rate	21.8%	26.0%	29.9%	33.2%	35.0%

Milestone: 1

CMS Metric #: 17(1)

CMS Metric Name: Follow-up after Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence: Age 18 and Older (FUA-AD)

Metric Type: Established quality measure

Reporting Category: Annual metrics that are established quality measures

Metric 17(1)(a) Percentage of ED visits for which the beneficiary received follow-up within 30 days of

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	497	597	644	777	1,168
Denominator	4,740	5,193	4,527	4,923	6,508
Rate	10.5%	11.5%	14.2%	15.8%	17.9%

Metric 17(1)(a) Percentage of ED visits for which the beneficiary received follow-up within 7 days of

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	323	386	435	513	787
Denominator	4,740	5,193	4,527	4,923	6,508
Rate	6.8%	7.4%	9.6%	10.4%	12.1%

Milestone: 1
CMS Metric #: 17(2)
CMS Metric Name: Follow-up after Emergency Department Visit for Mental Illness: Age 18 and Older (FUM-AD)
Metric Type: Established quality measure
Reporting Category: Annual metrics that are established quality measures

Metric 17(1)(a) Percentage of ED visits for which the beneficiary received follow-up within 30 days of

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	1,219	1,149	1,104	1,186	1,482
Denominator	2,722	2,724	2,458	2,641	3,256
Rate	44.8%	42.2%	44.9%	44.9%	45.5%

Metric 17(1)(a) Percentage of ED visits for which the beneficiary received follow-up within 7 days of

	CMS Measurement Period				
	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020
Numerator	850	805	786	840	1,112
Denominator	2,722	2,724	2,458	2,641	3,256
Rate	31.2%	29.6%	32.0%	31.8%	34.2%