

Report

# Selected Quality Measure Performance

# Continuity of Pharmacotherapy for Opioid Use Disorder (OUD)

– National Quality Strategy Domain: Effective Clinical Care

– Meaningful Measure Area: Prevention and Treatment of Opioid and Substance Use Disorders



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### Who we are

IQVIA (NYSE: IQV) is a leading global provider of advanced analytics, technology solutions, and clinical research services to the life sciences industry. IQVIA creates intelligent connections across all aspects of healthcare through its analytics, transformative technology, big data resources, and extensive domain expertise. IQVIA Connected Intelligence<sup>™</sup> delivers powerful insights with speed and agility — enabling customers to accelerate the clinical development and commercialization of innovative medical treatments that improve healthcare outcomes for patients. With approximately 90,000 employees, IQVIA conducts operations in more than 100 countries.

IQVIA is a global leader in protecting individual patient privacy. The company uses a wide variety of privacy-enhancing technologies and safeguards to protect individual privacy while generating and analyzing information on a scale that helps healthcare stakeholders identify disease patterns and correlate with the precise treatment path and therapy needed for better outcomes. IQVIA's insights and execution capabilities help biotech, medical device, and pharmaceutical companies, medical researchers, government agencies, payers, and other healthcare stakeholders tap into a deeper understanding of diseases, human behaviors, and scientific advances, to advance their path toward cures. To learn more, visit www.iqvia.com.



## About the Qualified Entity Certification Program

The Centers for Medicare & Medicaid Services (CMS) Qualified Entity Program (also known as the Medicare Data Sharing for Performance Measurement Program) enables Qualified Entities (QEs) to receive Medicare Parts A and B claims data and Part D prescription claims data to facilitate the evaluation of healthcare quality and provider performance (more information here). Organizations approved as QEs are required to use the Medicare data to produce and publicly disseminate CMSapproved reports.

### The purpose of this report

This report presents a summary of IQVIA's findings on the persistence of pharmacotherapy use among patients with Opioid Use Disorder (OUD), a modified clinical quality measure that is based off the National Quality Forum (NQF) endorsed measure, "Continuity of Pharmacotherapy for Opioid Use Disorder"1. The alternative performance measure described in this report has been modified by expanding on its codebased definitions of inclusion criteria, revising the exclusion criteria (See Appendix 1 for full code lists) and performance met; these modifications are in line with the measure's previously endorsed specifications and do not materially change the measure. IQVIA's definitional modifications broaden the population, offering a more inclusive picture of the provider performance across a diverse group of patients in terms of age, gender, and geographic location. Combining CMS data with IQVIA's adjudicated administrative claims data can provide a more complete view of healthcare quality performance metrics, and to better measure and quantify vital healthcare processes.

### What this report measures

This report measures the percentage of adults who have at least 180 days of continuous pharmacotherapy for OUD from January 1, 2019, through December 31, 2020; results are presented separately for 2019 (Cohort 1) and 2020 (Cohort 2). Continuous therapy was defined as dispensed medications to treat OUD without a gap of seven or more days in treatment. Only patients aged ≥18 years within measurement year(s) (2019 and 2020) with a diagnosis of OUD were eligible.

The measure evaluates provider performance around continuity of pharmacotherapy for OUD which is associated with improved patient outcomes. A lower performance score suggests providers have more room for improvement in their treatment of patients with OUD; however, clinical management of these patients is complex and administrative claims data lack information on what informed clinical decisions.

# Why this measure is important

This measure addresses the extent to which there is appropriate clinical management of patients with OUD. Continuous pharmacotherapy for OUD (e.g., methadone, buprenorphine, naltrexone) reduces the risk of morbidity and mortality associated with opioid abuse, overdose, and related outcomes. Clinical guidelines support a minimum six-month treatment period as the risk of relapse is the highest in the period after start of opioid abstinence (DHHS, 2015)<sup>2</sup>. Long-term followup studies suggest that ongoing pharmacotherapy, and generally longer treatment duration, is associated with opioid abstinence and better outcomes (Sofuoglu, 2019<sup>3</sup>; Bolivar, 2021<sup>4</sup>). Additionally, mortality risk is highest in the first several weeks after OUD treatment cessation (Sordo, 2017)<sup>5</sup>. This performance measure can help inform where providers may need to improve engagement and continuity of care, and where targeted interventions may be needed to better treat patients with OUD.

# Data sources

### **IQVIA PharMetrics Plus® for MedTech**

IQVIA PharMetrics<sup>®</sup> Plus for MedTech (PMTX-M) is a health plan claims database comprised of adjudicated medical and pharmacy claims for more than 100 million unique enrollees since 2006. Data contributors to PMTX-M are largely commercial health plans. PMTX-M is representative of the commercially insured U.S. national population for patients under 65 years of age. PMTX-M contains a longitudinal view of inpatient and outpatient services, prescription and office/outpatient administered drugs, costs, and detailed enrollment information. All data are compliant to the Health Insurance Portability and Accountability Act (HIPAA) to protect patient privacy.

### **Comingled data asset**

IQVIA comingled Medicare Fee-for-Service (FFS) data and IQVIA PMTX-M from 2018 through 2021. CMS makes all Parts A, B, and D Medicare FFS data available to approved QEs. Enrollees' data from both CMS and approved PMTX-M suppliers with Parts A & B or Med/Rx were combined, and common patients were linked using unique, de-identified patient IDs. One caveat: CMS beneficiaries who were enrolled with Medicare Advantage (alternative to FFS Medicare parts A, B, and D) for a given month were considered unenrolled for that month since we do not have corresponding medical claims.



### How the measure was calculated

IQVIA identified the eligible population by selecting patients 18 years of age with OUD diagnoses and pharmacotherapy for OUD (See Table 1) in the measurement years(s), 2019 and 2020. Patients were excluded if pharmacotherapy for OUD was initiated after June 30th of measurement year, if they had <13 months of continuous enrollment, or if days' supply data were unavailable in their administrative claims.

#### Table 1. Included medications to treat OUD

Primary active pharmaceutical ingredient	Product(s)	
buprenorphine	buprenorphine HCl, buprenorphine HCl – naloxone HCl dihydrate	
naltrexone	naltrexone HCl, naltrexone HCl – triamcinolone	
methadone	methadone HCl	

Performance was evaluated based on the proportion of eligible patients meeting one of the conditions below:

PERFORMANCE MET	PERFORMANCE NOT MET
<ul> <li>Patient with at least 180-days of continuous</li></ul>	<ul> <li>Patient with 180 days of pharmacotherapy for</li></ul>
pharmacotherapy for OUD over the	OUD, but with a >7-day gap, or <li>Patient without 180 days of pharmacotherapy</li>
measurement period	for OUD

A >7-day gap in continuous days was defined using the day of dispensing and the days' supply, accounting for stockpiling (i.e., early refills commence after the previous days' supply is exhausted). In line with the technical specifications, this analysis did not require risk adjustment or use of an outlier method.



In the prior and current specification documents for "Continuity of Pharmacotherapy for Opioid Use Disorder (OUD)," some of the inclusion/exclusion criteria, and the performance measure itself, was defined using nonbillable HCPCS G-codes. These non-payable G-codes are sparsely populated in most commercial claims databases, so creating the denominator and measuring performance would not be possible in IQVIA commercial claims and would provide no added value over CMS FFS claims alone. Therefore, it was necessary to make proxy definitions/rules for inclusion/exclusion criteria and the performance measure using only ICD10, CPT codes, and/or dispensing records (See Appendix 1 code lists). Minor changes were also made to the value sets and medication lists to reflect current practice. IQVIA's definitions provide more up-to-date clinical characterizations that are not reliant on non-payable G-codes; these codes have transportability across most commercial claims databases.

To define of continuous pharmacotherapy for medications that are not administered daily (i.e., intermittent dosing schedules), IQVIA created medication-specific "coverage" periods where patients were defined as continuous users post-dispensing (See Appendix 1 for days' supply assumptions). Additionally, with respect to using the M1035 code ("adults who are deliberately phased out of Medication Assisted Treatment (MAT) prior to 180 days of continuous treatment") as a denominator exclusion like a previous version of this measure, due to the complex clinical decisions that inform phasing out medications to treat OUD and the inability of ICD codes, and administrative claims more broadly to capture reason(s) behind ending a therapy, this exclusion was removed from the alternative specifications.



### Results

In cohort 1, there were 45,931,231 unique patients 18 years of age or older within the measurement period (2019), of which 137,776 (0.30%) met inclusion criteria (See Figure 1). After applying exclusions related to when pharmacotherapy was initiated, enrollment, and valid claims data, 24,142 patients met the criteria for eligibility for cohort 1 (2019). In cohort 2, there were 46,005,754 unique patients within the measurement period (2020) of which 173,300 (0.38%) met inclusion criteria, and 17,306 patients met the criteria for eligibility.

#### Figure 1. Identification of the measure population (cohort 1 and cohort 2)



# Population overview and demographics

Among those  $\ge$ 18 years old within the selection period in Cohort 1, 58.71% (n=26,966,313) were 65-84 years old and 54.78% were female (n=25,161,376) in the combined CMS and PMTX-M dataset; in cohort 2, 59.35% (n=27,306,689) were 65-84 years old and 54.27% were female (n=24,970,118). Among the eligible population in both cohorts, >40% were 45-64 years old (Cohort 1: n=11,269; 46.68%; Cohort 2: n=7,120; 41.14%), and a greater proportion were male (Cohort 1: n=12,397; 51%; Cohort 2: n=9,094; 53%) (See Figures 2 and 3).

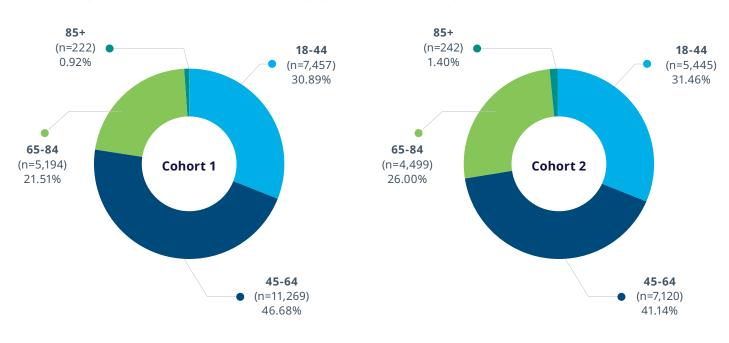
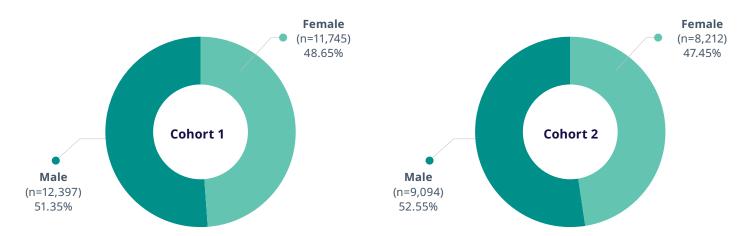
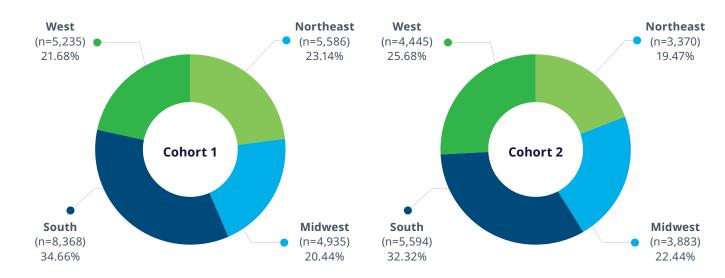


Figure 2. Frequency distribution of the eligible population by age group in both cohorts

Figure 3. Frequency distribution of the eligible population by patient sex in both cohorts



Overall ( $\geq$ 18 years old within the selection period), more than 37% (Cohort 1: n=17,028,546; Cohort 2: n=17,049,682) of patients reside in the South region, which was also the region with the greatest representation among the eligible population (Cohort 1: n=8,368; 34.66%; Cohort 2: n=5,594; 32.32%) (See Figure 4).



#### Figure 4. Frequency distribution of the eligible population by patient region for both cohorts

### Overall performance rates by cohort year

In cohort 1, 13.52% (95% Confidence Interval [CI] = 13.06-13.99%) met the performance definition, with at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD. In cohort 2, 13.62% (95% CI = 13.08-14.18%) met the performance definition. In both cohorts, >12% of those who did not meet performance had at least 180 days of pharmacotherapy but also a gap of >7 days in prescribed treatment.

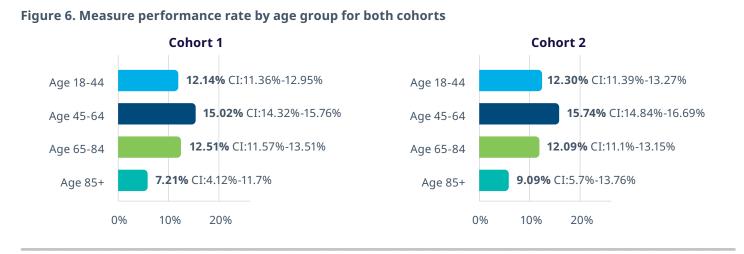
Criteria	Performance definition	Cohort 1		Cohort 2
Performance met	Patient with at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD without a gap of >7 days	3,264 13.5 (13.06-13	2 3 5 7	13.62% (13.08-14.18%)
Performance not met (Primary)	Patient without at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD	20,878 86.4 (85.31-8	14 949	86.38% (85.00-87.78%)
Performance not met (Secondary)	Patient with at least 180 days of continuous pharmacotherapy with a medication prescribed for OUD with a gap >7 days	12.3 2,572 (11.85-12	_ / 0	12.67% (12.11-13.25%) *

#### Figure 5. Overall performance rates

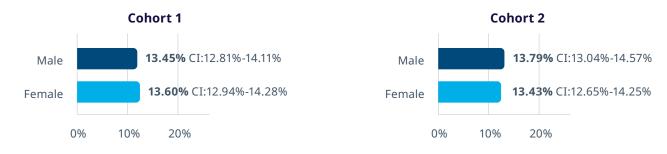
\* = of those not meeting performance

## Performance rates by age, sex, region, and state

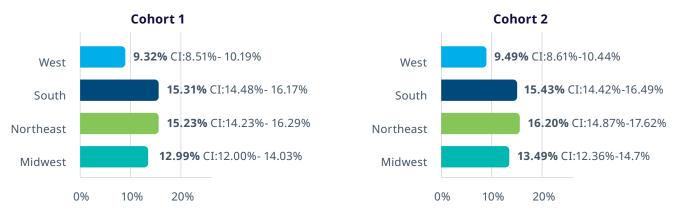
The performance rate was highest in the 45-64 year age group (Cohort 1: n=1,693, 15.02% [CI:14.32-15.76%]; Cohort 2: n=1,121, 15.74% [CI: 14.84%-16.69%) and lowest in the 85+ year age group (Cohort 1: n=16, 7.21% [CI:4.12-11.70%]; Cohort 2: n=22, 9.09% [CI: 5.70-13.76%]) (See Figure 6), and roughly equivalent between male and female patients (See Figure 7).



#### Figure 7. Measure performance rate by sex for both cohorts

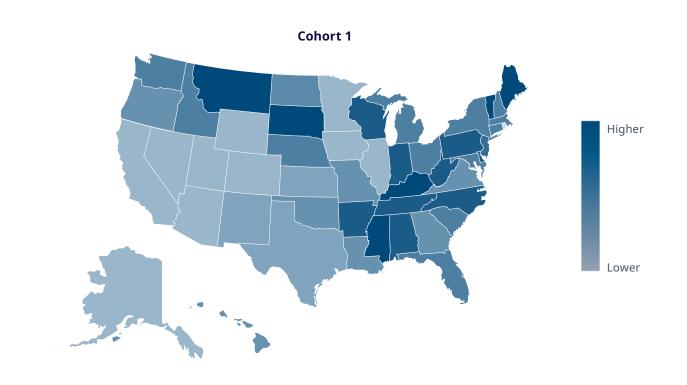


#### Figure 8. Measure performance rate by region for both cohorts

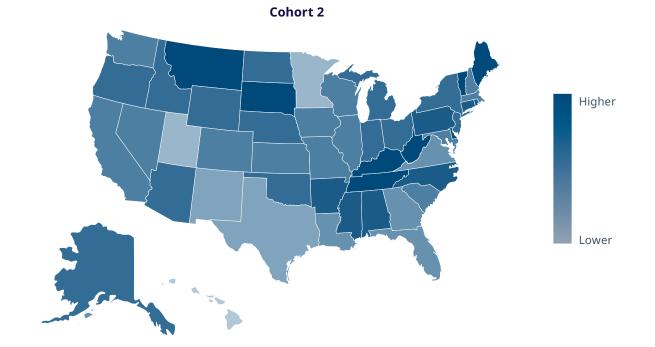


The performance rate was highest in the South region (n=1,281; 15.31% [CI: 14.48-16.17%]) in Cohort 1, and the Northeast region in Cohort 2 (n=546; 16.20% [CI: 14.87-17.62%]); and lowest in the West region in both cohorts (Cohort 1: n=488, 9.32% [CI: 8.51-10.19%]; Cohort 2: n=422, 9.49% [CI: 8.61-10.44%]) (See Figure 8).

Figure 9 shows the performance rate by state, which varied minimally between cohorts (See Appendix 2). Higher performance rates were generally observed in the Southeast, Midwest, and Northeast parts of the United States.



### Figure 9. Measure performance rate by state for both cohorts





### Discussion of findings

After comingling 2019 and 2020 CMS data with IQVIA administrative claims, this study determined that >13% of patients with OUD have continuous pharmacotherapy for OUD (>180 days in a year); of those who did not have continuous pharmacotherapy, roughly one in eight patients have 180-days of dispensing with a gap of >7 days during the study period. Rates of continuous pharmacotherapy were similar between males and females, and across age groups, outside of 85+ years old which was notably lower but with less precision in the performance estimate due to the smaller sample size. Regional variability in performance was minimal but continuous pharmacotherapy for OUD was lowest in the West, also impacted by sample size.

These findings suggest that there is considerable room for improvement in pharmacotherapy treatment across all patients with OUD, both in long-term engagement overall and in providing continuous coverage without treatment gaps. Undertreatment or gaps in treatment could lead to increased morbidity and mortality associated with OUD, and providers should encourage long-term adherence to OUD pharmacotherapy to improve outcomes.

Of note, information on the patient factors that go into clinical decisions to prescribe or not prescribe long-term pharmacotherapy for OUD are unavailable in these data; therefore, there could be valid clinical reasons for never starting or discontinuing these medications in some patients. Nevertheless, long-term pharmacotherapy for OUD is one effective clinical tool among many treatment modalities and better adoption can help mitigate the serious consequences associated with OUD.

## Appendix 1: Code-based clinical definitions

#### Table 1: Opioid Use Disorder (OUD) ICD10 codes

Variable	Codes	
OUD	<ul> <li>F11, F11.1, F11.10, F11.11, F11.12, F11.120, F11.121, F11.122, F11.129, F11.13, F11.14</li> <li>F11.15, F11.150, F11.151, F11.159, F11.18, F11.181, F11.182, F11.188, F11.19, F11.2,</li> <li>F11.20, F11.21, F11.22, F11.220, F11.221, F11.222, F11.229,</li> <li>F11.23, F11.24, F11.25, F11.250, F11.251, F11.259, F11.28, F11.281, F11.282, F11.2</li> <li>F11.29, F11.9, F11.90, F11.91, F11.92, F11.920, F11.921, F11.922, F11.929, F11.93,</li> <li>F11.94, F11.95, F11.950, F11.951, F11.959, F11.98, F11.981, F11.982, F11.988, F11.959</li> </ul>	88,

#### Table 2: Encounter CPT codes

Variable	Codes
Patient encounter(s) during performance period	99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99291, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99341, 99342, 99344, 99345, 99347, 99348, 99349, 99350, G0402, G0438, G0439

### Table 3: Days' supply of medications to treat OUD

Drug	Days' supply
BUPRENORPHINE SC_ BRIXADI 28 DAYS	28
BUPRENORPHINE SC_ BRIXADI 7 DAYS	7
BUPRENORPHINE SC_ BRIXADI_USE	USE NDC ON CLAIM TO DETERMINE DAYS' SUPPLY
BUPRENORPHINE SC_ PROBUPHINE	168
BUPRENORPHINE SC_ SUBLOCADE	28

Drug	Days' supply
BUPRENORPHINE SL	DEFAULT TO QUANTITY ON CLAIM
BUPRENORPHINE- NALOXONE 6-10MG	DEFAULT TO QUANTITY ON CLAIM
BUPRENORPHINE- NALOXONE 10+MG	DEFAULT TO QUANTITY ON CLAIM
BUPRENORPHINE- NALOXONE 3-6MG	DEFAULT TO QUANTITY ON CLAIM
BUPRENORPHINE- NALOXONE 3MG OR LESS	DEFAULT TO QUANTITY ON CLAIM
METHADONE ORAL	DEFAULT TO QUANTITY ON CLAIM
NALTREXONE IM	28

# Appendix 2: Results tables

### Table 1: Performance by age group

By age group	n		%	Performance rate
	Coho	rt 1		
18-44	7,457		30.89%	12.14%
45-64	11,269		46.68%	15.02%
65-84	5,194		21.51%	12.51%
85+	222		0.92%	7.21%
Total	24,142		100%	

By age group	n		%		Performance Rate
	Coho	rt 2			
18-44	5,445		31.46%	8 8 8 8 8 8 8	12.30%
45-64	7,120	-	41.14%	0 9 9 9 9 9	15.74%
65-84	4,499		26.00%	0 0 0 0	12.09%
85+	242		1.40%	9 6 8 9 9 9	9.09%
Total	17,306		100%	6 9 9 9 9	

### Table 2: Performance by sex

By sex	n	%	Performance rate
	Coho	rt 1	
Female	11,745	49%	13.60%
Male	12,397	51%	13.45%
Total	24,142	100%	
	Coho	rt 2	
Female	8,212	47%	13.43%
Male	9,094	53%	13.79%
Total	17,306	100%	

By geographic location	n	%	Performance rate			
	Cohort 1					
Northeast	5,586	23.14%	15.23%			
ст	405	1.68%	12.84%			
МА	1,391	5.76%	14.09%			
ME	386	1.60%	21.50%			
NH	430	1.78%	14.19%			
NJ	510	2.11%	13.73%			
NY	1,041	4.31%	13.64%			
PA	1,143	4.73%	16.71%			
RI	105	0.43%	18.10%			
VT	175	0.72%	21.14%			
Midwest	4,935	20.44%	12.99%			
IA	61	0.25%	8.20%			
IL	450	1.86%	9.56%			
IN	826	3.42%	16.34%			
KS	98	0.41%	10.20%			
МІ	1,030	4.27%	12.72%			
MN	491	2.03%	8.76%			
МО	490	2.03%	13.67%			

### Table 3: Completeness and performance by U.S. Census Bureau designations

By geographic location	n	%	Performance rate
	Cohort 1		
ND	39	0.16%	10.26%
NE	56	0.23%	3.57%
ОН	1,035	4.29%	14.40%
SD	37	0.15%	18.92%
WI	322	1.33%	13.98%
South	8,368	34.66%	15.31%
AL	559	2.32%	18.25%
AR	144	0.60%	17.36%
DC	70	0.29%	10.00%
DE	127	0.53%	15.75%
FL	804	3.33%	12.56%
GA	401	1.66%	12.22%
КҮ	907	3.76%	22.16%
LA	312	1.29%	14.74%
MD	671	2.78%	13.41%
MS	250	1.04%	19.60%
NC	875	3.62%	16.57%
ок	639	2.65%	11.58%
sc	286	1.18%	14.34%

By geographic location	n	%	Performance rate
	Cohort 1		
TN	475	1.97%	16.63%
тх	747	3.09%	9.37%
VA	636	2.63%	14.47%
wv	465	1.93%	19.35%
West	5,235	21.68%	9.32%
АК	88	0.36%	7.95%
AZ	260	1.08%	6.15%
CA	2,280	9.44%	7.72%
со	303	1.26%	8.25%
ні	37	0.15%	16.22%
ID	141	0.58%	14.18%
МТ	114	0.47%	20.18%
NM	216	0.89%	8.80%
NV	154	0.64%	7.14%
OR	643	2.66%	10.42%
UT	165	0.68%	7.27%
WA	788	3.26%	13.07%
WY	46	0.19%	6.52%

By geographic location	n	%	Performance rate	
	Cohort 2			
Northeast	3,370	19.47%	16.20%	
СТ	231	1.33%	17.32%	
МА	824	4.76%	14.20%	
ME	240	1.39%	23.33%	
NH	265	1.53%	14.72%	
NJ	341	1.97%	12.61%	
NY	703	4.06%	15.65%	
PA	628	3.63%	17.52%	
RI	46	0.27%	21.74%	
VT	92	0.53%	22.83%	
Midwest	3,883	22.44%	13.49%	
IA	57	0.33%	14.04%	
IL	335	1.94%	13.43%	
IN	611	3.53%	16.37%	
KS	66	0.38%	12.12%	
MI	616	3.56%	15.91%	
MN	644	3.72%	5.90%	
МО	324	1.87%	12.04%	
ND	28	0.16%	17.86%	

By geographic location	n	%	Performance rate
	Cohort 2		
NE	67	0.39%	17.86%
ОН	831	4.80%	16.42%
SD	37	0.21%	21.62%
WI	267	1.54%	11.61%
South	5,594	32.32%	15.43%
AL	236	1.36%	17.80%
AR	127	0.73%	18.90%
DC	44	0.25%	6.82%
DE	83	0.48%	21.69%
FL	547	3.16%	9.87%
GA	307	1.77%	10.42%
КҮ	796	4.60%	23.12%
LA	197	1.14%	9.64%
MD	515	2.98%	12.82%
MS	142	0.82%	19.01%
NC	598	3.46%	14.72%
ок	294	1.70%	14.97%
SC	151	0.87%	11.92%
TN	330	1.91%	22.73%

By geographic location	n	%	Performance rate
	Cohort 2	2	
тх	454	2.62%	7.49%
VA	496	2.87%	14.92%
WV	277	1.60%	22.02%
West	4,445	25.68%	9.49%
АК	98	0.57%	13.27%
AZ	233	1.35%	12.02%
СА	1,958	11.31%	7.15%
со	294	1.70%	11.56%
ні	25	0.14%	0.00%
ID	111	0.64%	14.41%
МТ	87	0.50%	20.69%
NM	152	0.88%	8.55%
NV	142	0.82%	9.15%
OR	544	3.14%	13.24%
UT	161	0.93%	5.59%
WA	603	3.48%	9.95%
WY	37	0.21%	16.22%

# References

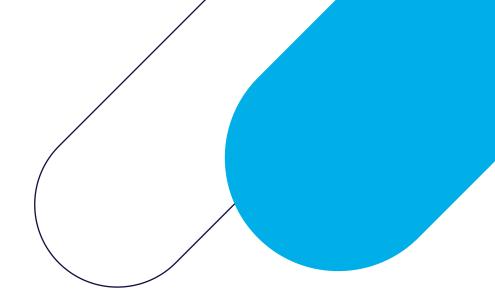
### <sup>1</sup>Quality ID #468: Continuity of Pharmacotherapy for Opioid Use Disorder (OUD)

<sup>2</sup> Substance Abuse and Mental Health Services Administration. Federal Guidelines for Opioid Treatment Programs. HHS Publication No. (SMA) PEP15-FEDGUIDEOTP. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

<sup>3</sup> Pharmacological and Behavioral Treatment of Opioid Use Disorder; Psychiatric Research and Clinical Practice Volume 1, Issue 1 Apr 2019 Pages 1-38

<sup>4</sup>Contingency Management for Patients Receiving Medication for Opioid Use Disorder A Systematic Review and Meta-analysis; JAMA Psychiatry. 2021; 78(10):1092-1102. doi:10.1001/ jamapsychiatry.2021.1969

<sup>5</sup> Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies *BMJ* 2017; 357 doi: <u>https://doi.org/10.1136/bmj.j1550</u> (Published 26 April 2017)



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