

**Continuity of Care After Inpatient or Residential Treatment  
for Substance Use Disorder (SUD)  
(NQF 3453)**

Technical Specifications and Resource Manual

April 2019

Center for Medicaid and CHIP Services  
Centers for Medicare & Medicaid Services



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## **ACKNOWLEDGMENTS**

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## **I. BACKGROUND**

These technical specifications focus on a measure for adult Medicaid beneficiaries, ages 18–64, who are discharged from an inpatient or residential treatment for substance use disorder (SUD) during the measurement year. Specifically, this manual is for the following measure:

- NQF 3453: Percentage of discharges from inpatient or residential treatment for substance use disorder (SUD) for Medicaid beneficiaries, ages 18–64, which were followed by a treatment service for SUD. SUD treatment services include having an outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth encounter, or filling a prescription or being administered or dispensed a medication for SUD. (After an inpatient discharge only, residential treatment also counts as continuity of care.) Two rates are reported, continuity within 7 and 14 days after discharge.

This measure was developed for the CMS Medicaid Innovation Accelerator Program (IAP) area for promoting continuity of care after discharge from inpatient or residential treatment to improve quality of care for beneficiaries with a SUD. This measure can be used by states, providers, and other stakeholders for quality improvement purposes.

The measure steward is CMS and this measure is constructed from Medicaid administrative claims and eligibility files. The technical specifications in Chapter III of this manual provide additional details of the measure.

## II. DATA COLLECTION

To support consistency in reporting NQF 3453, this chapter provides general guidelines for data collection, preparation, and reporting. The technical specifications are presented in Chapter III and provide detailed information on how to calculate the measure.

### Data Collection and Preparation for Reporting

- **Version of specifications.** This manual includes the most applicable version of the measure specifications available to CMS as of April 2019.
- **Value Set.** This measure specification references value sets used for calculating the measure. A value set is the complete set of codes used to identify a service or condition included in a measure. See the posted value sets.
- **Data collection time frames for measure.** This measure requires a data collection period of 12 months in total, from January 1 to December 15 of the measurement year.
- **Continuous enrollment.** This refers to the time frame during which a beneficiary must be eligible for benefits to be included in the measure denominator. This measure requires enrollment during the date of inpatient or residential treatment discharge through the end of the following month to be included in the denominator.
- **Allowable gap.** Some measures specify an allowable gap that can occur during continuous enrollment. This measure does not have an allowable gap.
- **Retroactive eligibility.** This refers to the time between the actual date when Medicaid became financially responsible for a member and the date when it received notification of the new member's eligibility. This measure does not apply retroactive eligibility.
- **Anchor date.** Some measures include an anchor date, which is the date that an individual must be enrolled and have the required benefit to be eligible for the measure. This measure does not have an anchor date.
- **Date specificity.** A date must be specific enough to determine that an event occurred during the time frame in the measure. There are instances when documentation of the year alone is adequate; e.g., most optional exclusions and measures look for events in the "measurement year or the year prior to the measurement year." Terms such as "recent," "most recent," or "at a prior visit" are not acceptable.
- **Reporting unit.** The reporting unit is the state.
- **Eligible population for measurement.** The measure includes fee-for-service (FFS) and managed care (MC) Medicaid beneficiaries who satisfy measure-specific eligibility criteria (e.g., age, benefit, and event).
- **Members with partial benefits.** States should include only the Medicaid beneficiaries who are eligible to receive the services assessed in the numerator. If a member is not eligible to receive the services assessed in the measure, the

member should not be included in the denominator for the measure. Individuals receiving inpatient or residential treatment services should be eligible to receive continuity of care services for SUDs including telehealth services and the prescription or receipt of a medication to treat a SUD. Each state should assess the specific benefit packages of the beneficiaries in their state.

- **Aggregating information for state-level reporting.** To obtain a state-level rate for a measure that is developed from the rates of multiple units of measurement (such as multiple managed care organizations [MCOs]), the state should calculate a weighted average of the individual rates. How much any one entity (e.g., individual MCOs) will contribute to the weighted average is based on the size of its eligible population for the measure. This means that reporting units with larger eligible populations will contribute more toward the rate than those with smaller eligible populations.
- **Age criteria.** This measure applies to Medicaid FFS and managed care beneficiaries who are ages 18–64 as of the first date of the measurement period (January 1).
- **Exclusions.** Exclude from the denominator for both rates:
  - Discharges with hospice services during the measurement year.
  - Exclude both the initial discharge and the admission/direct transfer discharge if the admission/direct transfer discharge occurs after December 15 of the measurement year.
  - Discharges followed by admission or direct transfer to any inpatient (regardless of diagnosis) or SUD residential treatment setting within 7- or 14-day continuity of care period. These discharges are excluded from the measure because transfer, hospitalization, or admission to inpatient or SUD residential treatment within 7 or 14 days after discharge may prevent a continuity of care visit from taking place.
  - An exception is admission to residential treatment following discharge from inpatient treatment; these admissions are not excluded, because continuity into residential treatment after inpatient treatment is considered appropriate treatment.
- **Representativeness of data.** States should use the most complete data available and ensure that the rates reported are representative of the entire eligible population for the measure.
- **Data collection methods.** The data for this measure are collected from Medicaid administrative claims and eligibility files.
- **Sampling.** The denominator for this measure includes all FFS and managed care Medicaid beneficiaries ages 18–64 who meet the denominator criteria. The measure does not require a separate sampling methodology.
- **Small numbers.** If a measure has a denominator that is less than 11, the state may choose not report the measure due to small numbers.
- **Risk adjustment.** This measure does not require risk adjustment.



### **III. TECHNICAL SPECIFICATIONS**

This chapter presents the technical specifications for the measure of continuity of care after inpatient or residential treatment for substance use disorder (SUD). The specification includes a description of the measure and information about the eligible population, key definitions, data collection method, instructions for calculating the measure, and any other relevant measure information.

## **NQF 3453: CONTINUITY OF CARE AFTER INPATIENT OR RESIDENTIAL TREATMENT FOR SUBSTANCE USE DISORDER (SUD)**

### **Centers for Medicare & Medicaid Services**

#### **A. DESCRIPTION**

Percentage of discharges from inpatient or residential treatment for substance use disorder (SUD) for Medicaid beneficiaries, ages 18–64, which were followed by a treatment service for SUD. SUD treatment services include having an outpatient visit, intensive outpatient encounter or partial hospitalization, telehealth encounter, or filling a prescription or being administered or dispensed a medication for SUD. (After an inpatient discharge only, residential treatment also counts as continuity of care.) Two rates are reported, continuity within 7 and 14 days after discharge.

Data Collection Method: Administrative

#### **Guidance for Reporting:**

- Two rates are reported: continuity of care within 7 days and within 14 days after inpatient or residential treatment discharge.
- The denominator for this measure will differ slightly for the 7-day rate and the 14-day rate due to admission or direct transfer that might occur between 7 and 14 days after discharge. Thus, the denominator for the 14-day rate will always be equal to or less than the 7-day rate.
- The 14-day continuity of care rate should be greater than (or equal to) the 7-day continuity of care rate.
- This measure uses the following administrative claims or encounter data and pharmacy claims:
  - State Medicaid Management Information System (MMIS), MSIS, or T-MSIS files: eligible (EL), inpatient (IP), other services (OT), long-term care (LT) and drug (RX) files.
  - The other services file contains facility and individual provider services data. Most notably, it may contain both residential and other stayover service claims data as claims are assigned to claims file types based upon the category of service provided.
  - The inpatient file only contains inpatient hospital, sterilization, abortion and religious non-medical health care institution claims.

The following coding systems are used in this measure: Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases (ICD-10-CM, ICD-10-PCS), National Drug Codes (NDC), Place of Service (POS), and Uniform Billing (UB) Revenue Codes. Refer to the Acknowledgments section at the beginning of the manual for copyright information.

## B. DEFINITIONS

Continuity of care period	7-days and 14-days after discharge from inpatient or residential treatment.
Measurement period	January 1 to December 15 of the measurement year.
Primary diagnosis	In medical coding, the condition that requires the most resources and care.

## C. ELIGIBLE POPULATION

Age	18–64 years. Age is calculated as of January 1 of the measurement year.
Continuous enrollment	Beneficiaries must be enrolled in Medicaid during the month of inpatient or residential treatment discharge and the following month. For example, for a discharge in March, the beneficiary must be enrolled for March and April.
Allowable gap	No gaps in enrollment.
Anchor date	None.
Benefits	Medical and chemical dependency.
Exclusions	<ul style="list-style-type: none"><li>• Discharges with hospice services during the measurement year.</li><li>• Exclude both the initial discharge and the admission/direct transfer discharge if the admission/direct transfer discharge occurs after December 15 of the measurement year.</li><li>• Discharges followed by admission or direct transfer to any inpatient (regardless of diagnosis) or to SUD residential treatment setting within 7- or 14-day continuity of care period. These discharges are excluded from the measure because transfer, hospitalization, or admission to inpatient or SUD residential treatment within 7 or 14 days may prevent a continuity of care visit from taking place.</li><li>• An exception is admission to residential treatment following discharge from inpatient treatment; these admissions are not excluded, because continuity into residential treatment after inpatient treatment is considered appropriate treatment.</li></ul>
Event/diagnosis	<p>Adult Medicaid beneficiaries with discharges from inpatient or residential treatment with a primary diagnosis of SUD on or between January 1 and December 15 of the measurement year.</p> <p><u>Step 1: Identify denominator</u></p> <ul style="list-style-type: none"><li>• Step 1A: Eligible population: Identify non-dual eligible beneficiaries ages 18–64. Keep beneficiaries with any discharges from inpatient or residential treatment with a</li></ul>

	<p>primary diagnosis of SUD on or between January 1 and December 15 of the measurement year. Beneficiaries must meet enrollment criteria, defined as Medicaid as the first payer and enrolled in the month of discharge and the following month. Age is calculated as of January 1 of the measurement year.</p> <p>Throughout Steps 1 and 2, diagnoses of SUD are identified using a primary diagnosis from the 2016 “HEDIS AOD Dependence” value set (Tab 1) or any procedure code from the 2016 “HEDIS AOD Procedures” value set (Tab 2).</p> <ul style="list-style-type: none"> <li>• Step 1B: Flag claims as inpatient or as residential treatment with a primary diagnosis of SUD: Among the Medicaid beneficiaries in Step 1A, flag claims as being either in an inpatient or residential setting using all inpatient, outpatient, and ambulatory claims files or tables that contain HCPCS, ICD-10 procedure or diagnosis codes, place of service, or UB revenue codes. Residential treatment is identified using the codes in the SUD Residential Treatment value set (Tab 3). If a beneficiary has more than one discharge in a year, treat each discharge as a separate episode, e.g., an inpatient hospital discharge in January and a residential treatment discharge in July count as two episodes.</li> <li>• Step 1B.1: Consolidate episodes: Multiple inpatient or residential treatment claims that are up to 2 days apart should be combined into a single episode. Use all inpatient and residential treatment claims, regardless of diagnosis, to create episodes.</li> <li>• Step 1C: Assign treatment location to episodes: Use HCPCS, ICD-10 procedure or diagnosis codes, place of service, or UB revenue codes in the SUD Residential Treatment value set (Tab 3) and the SUD diagnosis value sets as noted in Step 1A to assign each episode as inpatient, residential treatment, or a mix of both (also indicating the first setting of each episode and the last setting of each episode).</li> <li>• Step 1D: Exclusions: Exclude discharges that meet the exclusion criteria as specified in the “Denominator Exclusion Details” section. <ul style="list-style-type: none"> <li>○ Exclude discharges for patients who receive hospice services during the measurement year.</li> <li>○ Exclude discharges after December 15 of the measurement year.</li> <li>○ Exclude discharges followed by admission or direct transfer to an inpatient or SUD residential treatment setting within the 7- or 14-day continuity of care period regardless of the primary diagnosis (with</li> </ul> </li> </ul>
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	<p>exception of admission to residential treatment following discharge from inpatient treatment).</p> <ul style="list-style-type: none"> <li>○ Exclude episodes that do not include at least one claim with primary diagnosis of SUD.</li> </ul> <p>The denominator for the 7- and 14-day continuity of care rates will differ because of the different exclusions based on transfer or admission to a hospital or residential treatment for 7 versus 14 days. For example, a beneficiary admitted to a residential setting on day 10 after discharge will be excluded from the 7-day rate but not from the 14-day rate.</p> <p><u>Step 2: Identify numerator</u></p> <ul style="list-style-type: none"> <li>• Step 2A: From the denominator defined above, identify discharges with qualifying continuity of care for SUD (primary or secondary diagnosis) within 7 or 14 days after discharge.</li> <li>• Step 2A.1: Visits: Identify visits meeting continuity of care criteria using outpatient claims files or tables that contain diagnosis, procedure, or revenue codes, procedure code modifiers, or place of service codes. For visits to count as continuity there must be an SUD diagnosis in any position – primary or secondary. Visits have to occur the day after discharge through day 7 or 14. We identify visits as: <ul style="list-style-type: none"> <li>1. Any procedure code or UB revenue code from “HEDIS IET Stand Alone Visits” value set (Tab 4); or</li> <li>2. Any procedure code from “HEDIS IET Visits Group 1” value set (Tab 5) along with place of service from “HEDIS IET POS Group 1” value set (Tab 6); or</li> <li>3. Any procedure code from “HEDIS IET Visits Group 2” value set (Tab 7) along with place of service from “HEDIS IET POS Group 2” value set (Tab 8).</li> </ul> <p>To ensure that the claims is for a visit (and not telehealth), the claim must also have procedure code modifier that is missing or in not a telehealth modifier (Tab 9).</p> </li> <li>• Step 2.A.2: Telehealth: Identify visits for telehealth meeting continuity of care criteria using outpatient claims files or tables that contain diagnosis, procedure, or revenue codes, procedure code modifiers, or place of service codes. For telehealth treatment to count as continuity, there must be an SUD diagnosis in any position – primary or secondary. Telehealth has to occur the day after discharge through 7 or 14 days after discharge. We identify telehealth as:</li> </ul>
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	<ol style="list-style-type: none"> <li>1. Any procedure code from the “HEDIS Telephone Visit” value set (Tab 12); or</li> <li>2. Any procedure code or UB revenue code from “HEDIS IET Stand Alone Visits” value set (Tab 4); or</li> <li>3. Any procedure code from “HEDIS IET Visits Group 1” value set (Tab 5) along with place of service from “HEDIS IET POS Group 1” value set (Tab 6); or</li> <li>4. Any procedure code from “HEDIS IET Visits Group 2” value set (Tab 7) along with place of service from “HEDIS IET POS Group 2” value set (Tab 8).</li> </ol> <p>Claims identified using logic in #2-4 must also have procedure code modifier from the “HEDIS Telehealth Modifier” value set (Tab 9).</p> <p>Step 2A.3: Identify pharmacotherapy events: Pharmacotherapy includes naltrexone (short or long acting), acamprosate, or disulfiram for alcohol dependence treatment and buprenorphine for opioid dependence treatment, as well HCPCS codes to identify procedures related to injectable pharmacotherapy (e.g., long-acting injectable naltrexone) and dispensing of methadone.</p> <p>Code lists for this measure are in the posted value sets. States may need to adapt the list of codes to include state-specific codes.</p> <ul style="list-style-type: none"> <li>• Indications of pharmacotherapy can occur in outpatient or pharmacy files or tables that contain procedure codes or NDCs. Pharmacotherapy events could be provided on the same day as the discharge through day 7 or 14. Pharmacotherapy continuity claims are identified as follows: <ol style="list-style-type: none"> <li>1. In OT file, a) any procedure code from “HEDIS Medication Assisted Treatment” value set (Tab 10); or b) any HCPCS procedure code from “MAT Additional Codes” value set (Tab 11); or c) any state-specific procedure code from “MAT Additional Codes” value set (Tab 11) for the two states listed in the value set (these codes were identified through consultation with these states).</li> <li>2. In RX file, any NDC from “AOD Pharmacotherapy” value set (Tab 13).</li> </ol> </li> </ul> <p><u>Step 3: Calculate rate</u></p> <ul style="list-style-type: none"> <li>• Step 3A: Calculate the overall 7- or 14-day continuity of care rate by dividing the number of discharges with evidence of a qualifying continuity of care visit or pharmacotherapy event (Step 2A) by the denominator (after exclusions) (Step 1D).</li> </ul>
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	Calculate the rates separately for 7 and 14 days after discharge.
Care settings	Ambulatory care: Clinician Office/Clinic, ambulatory care: outpatient rehabilitation, behavioral health/psychiatric: inpatient, behavioral health/psychiatric: outpatient, hospital/acute care facility, other (residential addiction program, outpatient addiction program).

## D. ADMINISTRATIVE SPECIFICATIONS

### Denominator

Measure data will be reported annually (12 months). To account for the 14-day time period after discharge from inpatient or residential treatment, the measurement period will start January 1 and end December 15 of the measurement year.

Inpatient or residential treatment was considered to be SUD-related if it had a primary SUD diagnosis or a procedure indicating SUD. SUD diagnoses are identified through ICD-10 codes. Procedures are defined using a combination of Healthcare Common Procedure Coding System (HCPCS) codes, Uniform Billing (UB) Revenue Codes, and ICD-10 procedure codes.

Eligible population meets the following conditions:

- Medicaid beneficiaries ages 18–64 as of January 1 of the measurement year.
- Benefit: Medical and Behavioral Health Services.
- Continuous Enrollment: The month that includes the date of the inpatient or residential SUD treatment discharge through end of the following month. The enrollment requirement is to ensure that beneficiaries are enrolled for sufficient time to allow for the continuity activities, particularly for a discharge that occurs near the end of a month.
- Discharges from inpatient or residential treatment with a primary diagnosis of SUD on any claim during the stay. Residential treatment is identified using the value sets in Tabs 1-3. SUD diagnoses are identified using the value sets in Tabs 1-2.
- The denominator is based on discharges, not individuals. If a beneficiary has more than one discharge, include all discharges on or between January 1 and December 15 of the measurement year.
- Inpatient and residential treatment is identified using a combination of HCPCS codes, UB Revenue codes and ICD-10 procedure codes. A list of codes is in the value sets: SUD Residential Treatment value set - Tab 3. States will likely need to modify the specifications to include their state-specific codes.

## **Numerator**

The measure will report two rates, continuity of care within 7 days and within 14 days after discharge.

The numerator includes discharges from inpatient or residential treatment settings that were followed by:

- Outpatient visit, intensive outpatient encounter, or partial hospitalization with a primary or secondary SUD diagnosis on the day after discharge through day 7 or 14.
- Telehealth encounter for SUD on the day after discharge through day 7 or 14.
- Pharmacotherapy (filling a prescription or being administered or dispensed a medication) on day of discharge through day 7 or 14.
- For inpatient discharges only, residential admissions on day 3 through day 7 or day 14.

If an overdose diagnosis code appears on the same outpatient or inpatient claim that is being viewed as follow-up, that claim does not qualify as follow-up.

## **E. ADDITIONAL NOTES**

None.

## **F. OPTIONAL STRATIFICATIONS**

States have the option to stratify by location of the inpatient or residential discharge. To do this stratification:

Calculate the inpatient continuity of care rate by dividing the number of discharges with evidence of a qualifying continuity of care visit or pharmacotherapy event (Step 2A) by the denominator (after exclusions) (Step 1D), only including discharges with a treatment location assigned as residential (Step 1C). Calculate the inpatient continuity rates separately for 7 and 14 days after discharge.

Calculate the residential continuity of care rate by dividing the number of discharges with evidence of a qualifying continuity of care visit or pharmacotherapy event (Step 2A) by the denominator (after exclusions) (Step 1D), only including discharges with a treatment location assigned as residential (Step 1C). Calculate the residential continuity rates separately for 7 and 14 days after discharge.

For episodes assigned to a mix of both settings, for the purposes of stratification, assign the episode to one setting based on the last setting of the episode.