Measure ID: PP10

Measure Name/Title

Measurement-Based Care Processes: Index Assessment, Monitoring and Care Plan Review

1. Descriptive Information

1.1 Measure Type
Process

1.2 National Quality Strategy (NQS) domain
Effective Clinical Care

1.3 Meaningful Measure Area
Prevention, Treatment, and Management of Mental Health

1.4 Brief Description of Measure
Percentage of adults 18 years of age and older with a mental and/or substance use disorder, who had a comprehensive index assessment in the measurement period, with monitoring and care plan review.

2. Measure Specifications

2.1 Data Dictionary, Code Table, or Value Sets
See Appendix A

2.2 For an instrument-based measure:

Standardized Tools – The name of the appropriate tool utilized must be documented in the medical record. For Rate 1 (Numerator 1), assessment must be done using one or a combination of two or more symptom tools that cover three of the following six domains: depression, anxiety, substance use, suicide ideation, functioning, and recovery. For Rate 2 (Numerator 2), assessment for monitoring should be done using one or more symptom tools relevant to the diagnosis documented at the encounter(s) with the comprehensive index assessment (functioning and recovery tools are relevant for all diagnoses). The validated tools for this measure include:

- DSM-5 Cross-cutting measure (Assessment for 13 domains including, depression, anxiety, alcohol and substance use, suicide, and psychosis)
  - [Note: This tool is only acceptable for Numerator 1, and is not considered a diagnosis-specific tool in Numerator 2.]
OR

- **Computerized Adaptive Testing (CAT) - MH** (Assessment in multiple domains including, depression, anxiety, alcohol and substance use, suicide, and psychosis).
  - [Note: This tool is only acceptable for Numerator 1, and is not considered a diagnosis-specific tool in Numerator 2.]

OR

- Any combination of validated assessment tools from the lists below:

  **Depression**
  - Patient Health Questionnaire (PHQ-9)
  - Patient Health Questionnaire-2 (PHQ-2)
  - Geriatric Depression Scale (GDS)
  - Beck Depression Inventory (BDI or BDI-II)
  - Hamilton Rating Scale for Depression (HAM-D)
  - Computerized Adaptive Testing Depression Inventory (CAT-DI)
  - **PROMIS – Depression Short Form or PROMIS – Computerized Adaptive Testing, Depression Module**
  - Quick Inventory of Depressive Symptomatology

  **Anxiety**
  - Generalized Anxiety Disorder Assessment (GAD-7)
  - **PROMIS – Anxiety Short Form or PROMIS – Computerized Adaptive Testing, Anxiety Module**

  **Alcohol and Substance Use**
  - Alcohol Use Disorders Identification Test Consumption screening tool (Audit-C)
  - Modified NIDA-ASSIST
  - Drug Abuse Screening Test (DAST-10)
  - Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS) Tool I & II
  - Substance Abuse Outcomes Module
  - Brief Addiction Monitor (BAM)
  - Rapid Opioid Dependence Screen (RODS)
  - **CAGE Questionnaire (CAGE)**

  **Suicidal Ideation and Behavior**
▪ Columbia-Suicide Severity Rating Scale (C-SSRS)
▪ Suicidal Behaviors Questionnaire-Revised (SBQ-R)
▪ Acquired Capability for Suicide Scale (ACSS)
▪ Sad Persons Scale (SPS) or Modified Sad Persons Scale (MSPS)
▪ Sheehan Suicidality Tracking Scale (S-STS)
▪ Nurses’ Global Assessment of Suicide Risk Assessment scale (NGASR)
▪ Patient Health Questionnaire (PHQ-9)
  • [Note: This tool is only acceptable as a suicidal ideation and behavior assessment for Numerator 1 (i.e., screening), and is not acceptable as a suicidal ideation and behavior assessment for Numerator 2 (i.e., monitoring)].

Functioning

▪ World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0) - 12-item Version
▪ Sheehan Disability Scale (SDS)

Recovery

▪ Recovery Assessment Scale (RAS)
2.3 Numerator Statement

**Numerator 1:** Patients who had a comprehensive index assessment using standardized tools to assess at least three of the following six domains: (1) functioning, (2) recovery, (3) depression symptom severity, (4) anxiety symptom severity, (5) substance use symptoms severity, or (6) suicidal ideation and behavior symptoms severity. The assessment is performed either within a single encounter, or across multiple encounters within a 30-day period. For either option, assessments may be completed either 24 hours prior to the encounter, or during the encounter.

**Numerator 2:** Patients who have a follow-up assessment for mental and/or substance use disorder performed using a validated tool at 90 days (+/- 30 days) after the comprehensive index assessment.

**Numerator 3:** Patients who had documentation of an adjustment to their care between 7 and 180 days following the encounter with the comprehensive index assessment and documentation of care.

2.4 Numerator Details

**Numerator 1:** The comprehensive index assessment is defined as the first comprehensive assessment performed at an encounter within Measurement Period 1. (Measurement Period 1 is defined as the 12-month window beginning on July 1 of the year prior to the measurement year, through June 30 of the measurement year.) The comprehensive assessment is defined as an assessment using validated tool(s) to cover 3 of the following 6 domains: functioning, recovery, and symptom severity in depression, anxiety, substance use, and suicidal ideation and behavior (see Section 3.4 for list of accepted, validated tools). The comprehensive assessment must be performed either within a single encounter, or across 2 encounters no more than 30 days apart, both occurring within Measurement Period 1. For either option, assessments may be completed either 24 hours prior to the encounter, or during the encounter. The assessment must utilize validated tools (see Section 3.4). The names of the tools utilized, and the results, must be documented in the medical/health record.

**Numerator 2:** Monitoring is defined as the administration of validated tools(s) to the individual within 24 hours prior to or on the date of a follow-up encounter within Measurement Period 2. (Measurement Period 2 is defined as the 14-month window beginning on Aug 30 of the year prior to the measurement year, through Oct 28 of the measurement year.) Follow-up encounters should occur at 90 days (+/- 30 days) after the comprehensive index assessment. The follow-up assessment should include either:

a) a tool specific to the patient’s mental and/or substance use disorder diagnosis* (i.e., depression, anxiety, alcohol or substance use, or suicidal ideation and behavior), as documented at the encounter(s) with the comprehensive index assessment*, OR;

b) an assessment for functioning*, OR;

c) an assessment for recovery*.

*Note: See section 3.4 for accepted validated tools, and their associated diagnosis domains.

The names of the tool(s) utilized, and the results must be documented in the medical/health record.
(Note: For Numerator 2, the PHQ-9 is only acceptable for monitoring depression symptoms, and not acceptable for monitoring suicidal ideation and behavior.)

**Numerator 3:** Care review must occur between 7 and 180 days following the encounter with the comprehensive index assessment and documentation of care, within Measurement Period 3. (Measurement Period 3 is defined as the 18-month window beginning Jul 8 of the year prior to the measurement year, through Dec 27 of the measurement year.) Care review reflects a clinician’s judgment, which may include care adjustment (a proxy for the clinician’s decision-making process), or the decision for no care adjustment.

**Care Plan Adjustment Methods:** The care plan adjustment data set consists of 37,537 deidentified clinician attestations categorized as follows: medication management, medication increase, physician review, and referral. Medication management was defined as any stop or start of medications and/or decrease of medication dosage. Medication increase was defined as increase in medication dosage. Physician review or treatment plan, or creation of a treatment plan and goals that include medication and/or psychotherapy. Referral was defined as any referral to or for psychotherapy and/or a psychiatric professional.

A list of keywords and phrases that are commonly used when referring to various care plan adjustment methods were created prior to performing text mining across five PsychPRO data repository tables including three EHR note tables. Text features such as capitalization, text-wrap properties, indentation, and white space that created critical problems as it relates to search uniformity, were addressed using string re-formatting prior to performing text search and extractions. Each table was searched for keywords/phrases and a substring with the keyword/phrase as the starting position was extracted at a length of 200 characters. The extracted keywords/phrases were then coded as a Y/N variable. The final care plan adjustment table included patient id, unique encounter date, and Y/N attestation of a care plan adjustment per observation.

2.5 Denominator Statement

**Denominator 1:** Patients aged 18 years and older with a mental and/or substance use disorder with at least one outpatient encounter during the intake period.

**Denominators 2 & 3:** Patients aged 18 and older with a mental and/or substance use disorder with at least one encounter during the intake period and assessment data from a comprehensive index assessment performed during the measurement period covering at least three of the following six domains: (1) functioning, (2) recovery, (3) depression symptom severity, (4) anxiety symptom severity, (5) substance use symptoms severity, or (6) suicidal ideation and behavior symptoms severity.

2.6 Denominator Details

**Denominator 1, 2 and 3:**

**Intake Period:** 12-month window beginning July 1 of the year prior to the measurement year, through June 30 of the measurement year.

**Age Range:** Individuals aged 18 and older as of the date of the encounter with the comprehensive index assessment.
AND

Mental and/or substance use disorder diagnosis during the measurement period (ICD-10-CM; [*=1-9]):


AND

Patient encounter during the measurement period (CPT or HCPCS):

59400, 59510, 59610, 59618, 90791, 90792, 90801, 90832, 90833, 90834, 90836, 90837, 90838, 90839, 90845, 90846, 90847, 90849, 90853, 90863, 90865, 90867, 90868, 90869, 90870, 90875, 90876, 90880, 92625, 96105, 96110, 96112, 96116, 96121, 96125, 96127, 96130, 96131, 96132, 96133, 96136, 96137, 96138, 96139, 96146, 96150, 96151, 96156, 96158, 96160, 96161, 96372, 97165, 97166, 97167, 99201, 99202, 99203, 99204, 99205, 99206, 99207, 99208, 99309, 99310, 99315, 99316, 99318, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99339, 99340, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99355, 99384, 99385, 99386, 99387, 99394, 99395, 99396, 99397, 99401, 99402, 99403, 99404, 99406, 99407, 99408, 99409, 99483, 99484, 99487, 99490, 99492, 99493, G0101, G0402, G0438, G0439, G0444, G0076, G0077, G0078, G0079, G0080, G0081, G0082, G0083, G0084, G0085, G0086, G0087, G0396, G0397, G0442, G0443, G0447, G0466, G0467, G0468, G0469, G0470, G0511, G0512, G2011, G2012, G2086, G2087, 185463005, 185464004, 185465003, 281036007, 3391000175108, 439740005, 444971000124105 77406008, 84251009, 99241, 99242, 99243, 99244, 99245, 99381, 99382, 99383, 99391, 99392, 99393, 99411, 99412, 99429, 99455, 99456, G0463, T1015, 99443, 99441, 99442, 96101, 99354, 90785, 97163, 90840, G2083, G2082, 99421, 99417, G2212, 90806, 90809, 90805, H2000, Portal

Denominator 2 and 3:

AND

Assessment data from a comprehensive index assessment covering at least 3 of the following 6 domains: functioning, recovery, and symptom severity in depression, anxiety, substance use, and suicidal ideation and behavior.

AND

Documented Care: Documented care can be defined as including one or more of pharmacotherapy, psychosocial therapy, social services referrals, and consultations.
2.7 Denominator Exclusions

**Denominator 1, 2 and 3:**

**Exclusion(s):**
- Situations where the individual’s functional capacity or motivation (or lack thereof) to improve may impact the accuracy of results of validated tools.
- Patient deceased during the measurement period

**Exception(s):**
- None

2.8 Denominator Exclusion Details

Denominator exclusions included situations where the individual’s functional capacity or motivation (or lack thereof) to improve may impact the accuracy of results of validated tools, such as acute medical conditions, delirium, dementia, and development disorders. As neither data source used in testing the outcome measure supplied encounter-level diagnosis data, an individual met criteria for exclusion if there were documentation of an exclusion diagnosis at any point during the denominator intake period.

**ICD-10 codes used to identify denominator exclusions included:**
- F00-09: Mental disorders due to known physiological conditions
- F70-79: Intellectual disabilities
- F80-89: Developmental Disorders

2.9 High Priority Status

No

2.10 Type of Score
rate/proportion

2.11 Telehealth
Yes

2.12 Number of performance rates
3; Overall performance rate is a simple average of 3 rates

2.13 Traditional vs. inverse measure
Traditional

2.14 Interpretation of Score
Better quality = higher score

2.15 Calculation Algorithm/Measure Logic

**Submission Criteria 1:**
STEP 1.1: Identify initial denominator population. Identify individuals aged 18 and older with a mental health and/or substance use disorder who had an encounter during the intake period, as defined in sections 3.8 and 3.9 (denominator 1).

STEP 1.2: Identify exclusions from denominator. For all individuals included in the denominator in Step 1 above, identify all individuals that meet the exclusion criteria as defined in sections 3.10 and 3.11 (denominator 1).

STEP 1.3: Identify final numerator population. Identify all individuals who had a comprehensive index assessment with documentation of care during Measurement Period 1 and meet criteria defined in sections 3.6 and 3.7 (numerator 1).

STEP 1.4: Document exceptions. For all individuals who did not meet numerator criteria, check for documented exceptions as defined in criteria in sections 3.10 and 3.11.

STEP 1.5: Calculate performance. Calculate the performance score for the given measurement period as follows:

\[
\text{Performance Score} = \frac{\text{Final Numerator Population (Step 1.3)}}{\text{Final Denominator Population [Step 1.1 - (Step 1.2 and Step 1.4)]}}
\]

Submission Criteria 2:

STEP 2.1: Identify initial denominator population. Identify individuals aged 18 and older with a mental health and/or substance use disorder who had a comprehensive index assessment with documentation of care during an encounter during the intake period, as defined in sections 3.8 and 3.9 (denominator 2).

STEP 2.2: Identify exclusions from denominator. For all individuals included in the denominator in Step 1 above, identify all individuals that meet the exclusion criteria as defined in sections 3.10 and 3.11 (denominator 2).

STEP 2.3: Identify final numerator population. Identify all individuals who were monitored with follow-up using standardized tools to assess symptom severity of patient diagnosis, functioning, or recovery, at 90 days (+/- 30 days) after the encounter with the comprehensive index assessment during Measurement Period 2, defined in sections 3.6 and 3.7 (numerator 2).

STEP 2.4: Document exceptions. For all individuals who did not meet numerator criteria, check for documented exceptions as defined in criteria in sections 3.10 and 3.11 (denominator 2).

STEP 2.5: Calculate performance. Calculate the performance score for the given measurement period as follows:

\[
\text{Performance Score} = \frac{\text{Final Numerator Population (Step 2.3)}}{\text{Final Denominator Population [Step 2.1 - (Step 2.2 and Step 2.4)]}}
\]

Submission Criteria 3:

STEP 3.1: Identify initial denominator population. Identify individuals aged 18 and older with a mental health and/or substance use disorder who had a comprehensive index assessment with documentation of care during an encounter during the intake period, as defined in sections 3.8 and 3.9 (denominator 3).
STEP 3.2: Identify exclusions from denominator. For all individuals included in the denominator in Step 1 above, identify all individuals that meet the exclusion criteria as defined in sections 3.10 and 3.11 (denominator 3).

STEP 3.3: Identify final numerator population. Identify all individuals who had documentation of an adjustment to (or review of) their care during Measurement Period 3, including an adjustment to their medication OR therapy; OR referral OR consultation, defined in sections 3.6 and 3.7 (numerator 3).

STEP 3.4: Document exceptions. For all individuals who did not meet numerator criteria, check for documented exceptions as defined in criteria in sections 3.10 and 3.11 (denominator 3).

STEP 3.5: Calculate performance. Calculate the performance score for the given measurement period as follows:

$$\text{Performance Score} = \frac{\text{Final Numerator Population (Step 3.3)}}{\text{Final Denominator Population (Step 3.1 - (Step 3.2 and Step 3.4))}}.$$
## Appendix A: Suggested Data Elements

<table>
<thead>
<tr>
<th>Data element (DE)</th>
<th>Element Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>patient_unique_ID</td>
<td>Unique ID assigned to the Patient (may or may not be MRN or EMR number)</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>patient_gender</td>
<td>Administrative Gender of the patient</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>patient_age</td>
<td>Calculated from Patient’s dob in years</td>
<td>date</td>
</tr>
<tr>
<td>patient_sex</td>
<td>Patient’s sex</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>patient_guardian</td>
<td>If patient has a guardian who will be assisting with completing patient reported</td>
<td>varchar (50)</td>
</tr>
<tr>
<td></td>
<td>outcome scales (Y/N)</td>
<td></td>
</tr>
<tr>
<td>relationship_to_patient</td>
<td>Guardian’s relationship with the patient</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>patient_deceased</td>
<td>Whether the patient is deceased (Y/N)</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>death_date</td>
<td>If Deceased, Death date of patient</td>
<td>date</td>
</tr>
<tr>
<td>patient_unique_ID</td>
<td>Unique ID assigned to the Patient (may or may not be MRN or EMR number)</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>unique_encounter_code</td>
<td>Unique ID assigned to the encounter</td>
<td>varchar (20)</td>
</tr>
<tr>
<td>encounter_type_code</td>
<td>CPT code used to indicate type of encounter</td>
<td>varchar (100)</td>
</tr>
<tr>
<td>encounter_type_code_desc</td>
<td>Description for CPT code to indicate type of encounter</td>
<td>varchar (500)</td>
</tr>
<tr>
<td>encounter_start_date</td>
<td>Encounter start date or date of patient visit</td>
<td>dateTime</td>
</tr>
<tr>
<td>encounter_start_time</td>
<td>Encounter start time or time of patient visit</td>
<td>dateTime</td>
</tr>
<tr>
<td>encounter_end_date</td>
<td>Encounter end date (same as start date for outpatient visits)</td>
<td>dateTime</td>
</tr>
<tr>
<td>encounter_end_time</td>
<td>Encounter end time (same as start time for outpatient visits)</td>
<td>dateTime</td>
</tr>
<tr>
<td>reason_for_visit</td>
<td>The reason the patient sought treatment</td>
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</tr>
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<td>Unique ID assigned to the Patient (may or may not be MRN or EMR number)</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>enc_service_prov_npi</td>
<td>Provider NPI who is attending the patient</td>
<td>varchar (20)</td>
</tr>
<tr>
<td>enc_service_prov_locID</td>
<td>LocationId uniquely identify the service location</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>patient_unique_ID</td>
<td>Unique ID assigned to the Patient (may or may not be MRN or EMR number)</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>diagnosis_code</td>
<td>Diagnosis code that describes the problem, condition or diagnosis</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>diagnosis_code_system</td>
<td>The coding system used for the diagnosis code (i.e., SNOMED, ICD-9, ICD-10 code,</td>
<td>varchar (50)</td>
</tr>
<tr>
<td></td>
<td>DSM-5)</td>
<td></td>
</tr>
<tr>
<td>diagnosis_code_desc</td>
<td>Diagnosis code description that describes the problem, condition or diagnosis</td>
<td>varchar (500)</td>
</tr>
<tr>
<td>date_of_diagnosis</td>
<td>Date of diagnosis</td>
<td>date</td>
</tr>
<tr>
<td>enc_diagnoses</td>
<td>Indicates diagnosis applicable to encounter or ascribed to encounter</td>
<td>varchar (20)</td>
</tr>
<tr>
<td>Field Name</td>
<td>Description</td>
<td>Data Type</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>scale_completion_date</td>
<td>Date the patient completed the patient reported assessment scale</td>
<td>dateTime</td>
</tr>
<tr>
<td>scale_completion_time</td>
<td>Time the patient completed the patient reported assessment scale</td>
<td>dateTime</td>
</tr>
<tr>
<td>scale_name</td>
<td>Patient reported assessment scale name</td>
<td>varchar (100)</td>
</tr>
<tr>
<td>scale_name_scr</td>
<td>Patient reported assessment scale total score</td>
<td>numeric</td>
</tr>
<tr>
<td>intervention_code</td>
<td>Standard code for Interventions, including CPT Codes or SNOMED CT codes</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>intervention_code_desc</td>
<td>Standard Interventions code description in text</td>
<td>varchar (500)</td>
</tr>
<tr>
<td>intervention_code_std</td>
<td>The standard Interventions code used: CPT code; SNOMED CT</td>
<td>varchar (100)</td>
</tr>
<tr>
<td>intervention_category</td>
<td>Category of Interventions code</td>
<td>tinyint</td>
</tr>
<tr>
<td>intervention_date</td>
<td>Date of Intervention</td>
<td>date</td>
</tr>
<tr>
<td>intervention_status_code</td>
<td>Code for Intervention status</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>intervention_status_desc</td>
<td>Intervention status description whether the medication is active, completed etc</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>medication_code</td>
<td>The medication codes are the standard codes used to identify the medicines, e.g. RxNorm, NDC codes</td>
<td>varchar (50)</td>
</tr>
<tr>
<td>med_start_date</td>
<td>Date the patient was advised to take the medicines. Normally the same as visit date.</td>
<td>date</td>
</tr>
<tr>
<td>med_stop_date</td>
<td>date when patient is advised to stop taking the medicines</td>
<td>date</td>
</tr>
<tr>
<td>dose_quantity</td>
<td>The quantity of dose prescribed to patient.</td>
<td>varchar (100)</td>
</tr>
<tr>
<td>dose_quantity_unit_code_desc</td>
<td>The quantity of dose unit code description prescribed to patient.</td>
<td>varchar (100)</td>
</tr>
<tr>
<td>med_status_code</td>
<td>Medication Status whether the medication is active, completed etc.</td>
<td>Varchar (50)</td>
</tr>
<tr>
<td>med_status_code_desc</td>
<td>Medication Status description whether the medication is active, completed etc</td>
<td>Varchar (100)</td>
</tr>
<tr>
<td>note_section_name</td>
<td>The section to which the note belongs (e.g., care plan)</td>
<td>varchar (500)</td>
</tr>
<tr>
<td>note_text</td>
<td>This is free text note</td>
<td>varchar (500)</td>
</tr>
<tr>
<td>note_date</td>
<td>Documentation date</td>
<td>date</td>
</tr>
<tr>
<td>treatment_adj_note</td>
<td>Derived from clinical notes. Clinical decision following review of patient reported data and other clinical information documented for care and/or treatment planning. Examples of keyword/keyphrases include: No change/update to care/treatment plan; medication discontinued or dose increased or decreased; therapy referral; therapy sessions added or decreased; other referral; consultation; etc. Codes: 1. No change 2. Medication adjustment</td>
<td>varchar (500)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
|   | 3. Therapy adjustment  
|   | 4. Therapy referral  
|   | 5. Other referral (e.g., Medical care or Social Services)  
|   | 6. Consultation  |
| treatment_adj | Derived from comparison of medication or intervention codes across relevant encounter dates. Code changes can be considered a proxy for care/treatment adjustment. Codes: Y/N  
|   | varchar (100)  |