

Phase 2 Measures of Depression Population

Each Phase 2 depression team is required to track and report the core national measures (measures 1 through 4) along with the count of patients with depression tracked by the clinical information system. "Patients with depression" is defined as patients with the diagnosis of major depression (*ICD-9 code 296.20-296.3*), dysthymia (chronic depression) (*ICD-9 code 300.4*), depression NOS (*ICD-9 code 311*), and adjustment disorder with depression, or minor depression (*ICD-9 code 309.0*). ICD-9 codes are not always accurate, however; and organizations are reminded that clinical judgment should subsequently take precedence when selecting patients to include in a specific diagnostic category. The measures, as currently defined, apply to all adults; i.e., those greater than or equal to 16 years of age. Teams are welcome to track and report any of the additional measures (5-13) as useful to their work.

Psychiatric co morbidity is to be expected in persons who have depression. Most studies evaluating the effectiveness of chronic disease models of depression care have excluded patients with bipolar disorder, schizophrenia, and severe alcohol and substance use disorders. The studies have usually included patients with co-occurring panic disorder and generalized anxiety disorder. Few have systematically measured post-traumatic stress disorder. Limited data indicate that the depression chronic care model is most likely to improve outcomes for patients with new episodes of depression and mild to moderate psychiatric co morbidity.

Each center should decide which patients with clinical depression and other co-occurring mental disorders will be included in the registry. Clinical judgment, not empirical data, provides the best evidence for these decisions. Other important factors that impact the decision include: 1) the balance between demand for chronic care services and availability of depression care management services; 2) pattern of psychiatric co morbidity in your patient population; 3) availability of specialty mental health expertise on-site; 4) availability of specialized mental health services with easy referral (e.g. substance abuse); 5) interest, experience and competence of primary care providers in managing patients with more complex psychiatric co morbidity. Additional "key points to consider" are listed at the bottom of the depression measures document.

REQUIRED MEASURES				
Measure	Definition	Data Gathering Plan	Goal	Notes/Comments
1.CSD* patients with 50% reduction in PHQ (Depression Symptom Reduction: Response)	Percent of CSD* patients with a 50% reduction in PHQ (comparing last New Episode PHQ** to the most recent Current PHQ). The Current PHQ must be dated later than the New Episode PHQ**. Numerator = all patients with a diagnosis of CSD* who have a 50% or greater reduction in PHQ; Denominator = all CSD* patients	On the last workday of the month, search the registry and count the number of patients with CSD* and $\geq 50\%$ reduction in PHQ (comparing last New Episode PHQ** to the most recent Current PHQ). The Current PHQ must be dated later than the New Episode PHQ**. Then, count the number of CSD* patients in the registry. Divide the first number by the second and multiply by 100.	>40%	50% reduction in symptom score ("response") has for years been an accepted measurement of clinical improvement in randomized trials evaluating treatment for depression. Studies have found that collaborative care can increase the percentage that have a 50% reduction in symptoms (74% vs. 44%, <i>Ref. 1</i>) and (45% vs. 19%, <i>Ref. 12</i>).

<p>2. CSD* patients with a 5 point reduction in PHQ score within 6 months</p> <p>(Depression Symptom Reduction: 6 Month CSI**)</p> <p>**Clinically Significant Improvement</p>	<p>Percent of CSD* patients who attain a 5 point reduction in PHQ within 6 months (180 days) after their New Episode PHQ**.</p> <p>Numerator = all CSD* patients who have a 5 point or greater reduction in PHQ within six months (180 days) of their NE PHQ**, and New Episode PHQ is within the last 12 calendar months. (If there is more than one Current PHQ within 6 months (180 days) of New Episode PHQ**, take the most recent Current PHQ)</p> <p>Denominator = all CSD* patients with at least one Current PHQ within 6 months (180 days) of their most recent New Episode PHQ** and most recent New Episode PHQ is within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of patients with CSD* and a 5 point or greater reduction in PHQ (comparing last New Episode PHQ** to the most recent Current PHQ). The Current PHQ must be dated later than the New Episode PHQ**, but within 6 months (180 days) of the New Episode PHQ** and the last New Episode PHQ is within the last 12 calendar months.</p> <p>Then, count the number of CSD* patients in the registry with a New Episode PHQ** and at least one Current PHQ within 6 months (180 days) of the most recent New Episode PHQ**, (and most recent New Episode PHQ is within the last 12 calendar months.) Divide the first number by the second and multiply by 100.</p>	<p>>50%</p>	<p>The evidence base for using a 5-point drop in PHQ as a clinically significant improvement (CSI) is documented by Lowe et al (<i>Ref. 26, Ref. 27</i>). Because the majority of CSD patients following evidence-based treatment regimes should achieve this improvement within several months, this measure focuses only on the 6-month window after each New Episode PHQ. (That is, all “current” PHQ scores, whether high or low, occurring more than 6 months after the date of the New Episode PHQ will not affect this measure.)</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
<p>3. Patients who have a diagnosis of depression and a documented PHQ score within the last 6 months</p> <p>(Depression Guideline Treatment: 6 Month Reassessment)</p>	<p>Percent of patients in the registry with a diagnosis of depression and a documented PHQ score within last 6 months (180 days).</p> <p>Numerator = all patients with a diagnosis of depression who have a PHQ score within the last 6 months (180 days).</p> <p>Denominator = all patients with a diagnosis of depression.</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of depression and a documented PHQ score within the last 6 months (180 days). (The PHQ can be either a New Episode and/or Current).</p> <p>Then, count the number of patients with a diagnosis of depression in the registry. Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>Depression is a chronic disease for most individuals and requires long-term monitoring (<i>Refs. 8 and 10</i>).</p>

<p>4. Depressed patients with documented self-management goal setting in the last 12 months</p> <p>(Self Management)</p>	<p>Percent of patients in the registry with a diagnosis of depression and documented self-management goals set within last 12 months.</p> <p>Numerator = all patients with a diagnosis of depression with documented SM goal setting within last 12 months;</p> <p>Denominator = all patients with a diagnosis of depression in the registry.</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of depression and documented self-management goals within the last 12 months.</p> <p>Then, count the number of patients with a diagnosis of depression in the registry. Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>Patient education and self-management skills have been important components of collaborative model interventions (<i>Ref. 1 and 20-25</i>).</p>
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Additional Recommended Measures: These measures are not required; however, you will find that they can be used to enhance care and increase the ability to achieve the required measures above.

Measure	Definition	Data Gathering Plan	Goal	Notes/Comments
<p>5. CSD* patients with documented PHQ reassessment between 4-8 weeks of last New Episode PHQ **</p> <p>(Depression Guideline Treatment: Early Reassessment)</p>	<p>Percent of CSD* patients who have a documented Current PHQ between 4-8 weeks (28-56 days) after their last New Episode PHQ**.</p> <p>Numerator = all CSD* patients with documented PHQ reassessment between 4-8 weeks (28-56 days) after their last New Episode PHQ** and last New Episode PHQ is within the last 12 calendar months.</p> <p>Denominator = all CSD* patients with a New Episode PHQ** within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of CSD* patients who have documented Current PHQ between 4-8 weeks (28-56 days) after the last New Episode PHQ**, and New Episode PHQ is within the last 12 calendar months</p> <p>Then, count the number of CSD* patients in the registry with a New Episode PHQ** within the last 12 calendar months. Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>AHRQ guidelines suggest that if there is no response at 6 weeks treatment needs to be changed or augmented.</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
<p>6. CSD* patients with documented early follow-up of last New Episode PHQ**</p> <p>(Depression Guideline Treatment: Early Follow-Up)</p>	<p>Percent of CSD* patients who have had a documented F/U 1 to 3 weeks (7-21 days) after their last New Episode PHQ**.</p> <p>Numerator = all CSD* patient with follow-up 1 to 3 weeks (7-21 days) after their last New Episode PHQ** and last New Episode PHQ is within the last 12 calendar months.</p> <p>Denominator = all CSD* patients with a New Episode PHQ** within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of CSD* patients who have had a documented follow-up 7 to 21 days after their last New Episode PHQ**, and last New Episode PHQ is within the last 12 calendar months.</p> <p>Then, count the number of CSD* patients in the registry with a New Episode PHQ** within the last 12 calendar months. Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>Early clinical follow-up is helpful to monitor early adherence and early side-effects which might lead to non-adherence (<i>Ref. 1</i>).</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>

<p>7. CSD* patients who, 4 months or longer after last New Episode PHQ**, have 50% reduction in PHQ score</p> <p>(Depression Symptom Reduction: 4 Month Response)</p>	<p>Percent of CSD* patients with a 50% reduction in PHQ (comparing New Episode PHQ** to the most recent Current PHQ) 4 months (120 days) or longer after the last New Episode PHQ**.</p> <p>Numerator = all patients with a diagnosis of CSD* who, 4 months (120 days) or longer after the last New Episode PHQ**, (occurring within the last 12 calendar months), have a 50% or greater reduction in PHQ.</p> <p>Denominator = all patients with a diagnosis of CSD* 4 months (120 days) or longer after the last New Episode PHQ**, and last New Episode PHQ is within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of CSD* patients whose last New Episode PHQ** was at least 4 months (120 days) ago (but no more than 12 months ago) and who have a 50% or greater reduction in PHQ, when compared to their latest Current PHQ (must be later than the New Episode PHQ**).</p> <p>Then, count the number of CSD* patients whose last New Episode PHQ** was at least 4 months (120 days) ago but no more than 12 months ago. Divide the first number by the second and multiply by 100.</p>	<p>>50%</p>	<p>This measure demonstrates 4-month response rate of a treated population and allows comparison to published research outcomes. Patients who are less than 4 months into treatment would not be expected to have a consistent response and are excluded from this measure. (<i>Refs. 1 and 12</i>).</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
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<p>8. CSD* patients with PHQ score less than 5 at least 4 months after last New Episode PHQ**</p> <p>(Depression Symptom Reduction: 4 Month Remission)</p>	<p>Percent of CSD* patients with a PHQ score less than 5, 4 months (120 days) or longer after the last New Episode PHQ**.</p> <p>Numerator = all patients with a diagnosis of CSD* who, 4 months (120 days) or longer after their last New Episode PHQ** (occurring within the last 12 calendar months), have a most recent PHQ score less than 5.</p> <p>Denominator = all patients with a diagnosis of CSD* 4 months (120 days) or longer after their last New Episode PHQ**, and last New Episode PHQ is within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of CSD* patients whose last New Episode PHQ** was at least 4 months (120 days) ago (but no more than 12 months ago) and whose last Current PHQ is less than 5 (Current PHQ must be later than the New Episode PHQ**).</p> <p>Then, count the number of CSD* patients whose last New Episode PHQ** was at least 4 months (120 days) ago but no more than 12 months ago. Divide the first number by the second and multiply by 100.</p>	<p>>40%</p>	<p>This measure demonstrates 4-month remission rates and allows comparison to published research outcomes (<i>Refs 7, 11, 12 & 14</i>).</p> <p>Patients who are less than 4 months into treatment would not be expected to have a consistent response and are excluded from this measure.</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
<p>9. Patients with a diagnosis of major depression or dysthymia on an antidepressant*** at last visit (Recommended to be used in conjunction with measure #10)</p> <p>(Depression Guideline Treatment: CSD and Dysthymia)</p>	<p>Percent of patients with a diagnosis of major depression or dysthymia who, as of their last visit, are taking an antidepressant***</p> <p>Numerator = all patients with a diagnosis of major depression or dysthymia taking an antidepressant*** at the time of the last visit</p> <p>Denominator = all patients with a diagnosis of major depression or dysthymia.</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of major depression or dysthymia who are taking an antidepressant*** at the time of the last visit.</p> <p>Then, count the number of patients with a diagnosis of major depression or dysthymia. Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>This measure assesses use of evidence-based medication treatments for major depression and dysthymia.</p> <p>A wide range of antidepressants have been found to be efficacious for dysthymia (<i>Ref. 18</i>).</p>

<p>10. Patients with diagnoses of minor depression, depression NOS, or adjustment disorder (PHQ <10) NOT on an antidepressant*** (recommended to be used in conjunction with measure #9)</p> <p>(Depression Guideline Treatment: Minor Depression)</p>	<p>Percent of patients with a diagnosis of minor depression, depression NOS, or adjustment disorder (New Episode PHQ** <10) NOT on an antidepressant***</p> <p>Numerator = all patients with a diagnosis of minor depression, depression NOS, or adjustment disorder (last New Episode PHQ** <10) NOT on an antidepressant***.</p> <p>Denominator = all patients with a diagnosis of minor depression, depression NOS, or adjustment disorder (last New Episode PHQ** <10).</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of minor depression, depression NOS, or adjustment disorder (last New Episode PHQ** <10) NOT on an antidepressant***.</p> <p>Then, count the number of patients with a diagnosis of minor depression, depression NOS, or adjustment disorder (last New Episode PHQ** <10). Divide the first number by the second and multiply by 100.</p>	<p>>90%</p>	<p>This measure assesses evidence-based non-use of antidepressant medications for minor depression. Furthermore, most studies of the chronic care model have found effectiveness for major depression but not minor depression (<i>Refs. 1 and 3</i>).</p> <p>Efficacy studies of minor depression have provided only mixed support for a small to moderate benefit for antidepressant medications.</p> <p>Better evidence is that antidepressants are helpful if there is severe functional impairment. SSRIs have been shown to be helpful for premenstrual dysphoric disorder.</p>
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<p>11. Depressed patients who improve in function (Depression Functional Improvement)</p>	<p>Percent of patients with a diagnosis of depression reporting an improvement in function (measured by New Episode Function as compared to a later Current Function).</p> <p>Numerator = all patients with a diagnosis of depression who, on their last New Episode Function, had a score >0 and whose last Current Function had a reduced score. (Date of Current Function must be later than the date of the last New Episode Function). This could be anywhere from a 1-3 point drop on the function question (#10). (Note that only patients with a New Episode Function within the last 12 months will be included in this measure).</p> <p>Denominator = all patients with a diagnosis depression who have a score of >0 on their last New Episode Function, which must be within the last 12 calendar months.</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of depression who, on their last New Episode Function, had a score >0 and whose last Current Function had a reduced score. (Date of Current Function must be later than the date of the last New Episode Function and the date of the New Episode Function must be within the last 12 months). This could be anywhere from a 1-3 point drop on the function question (#10).</p> <p>Then, count the number of patients with a diagnosis of depression who have a score of >0 on their last New Episode Function, which must be within the last 12 calendar months. Divide the first number by the second and multiply by 100.</p>	<p>>40%</p>	<p>This measure assesses functional improvement in patients treated for depression. While some studies have not found large effects on improving function, some have (Ref. 14).</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
<p>12. Patients with depression or dysthymia remaining on antidepressant*** for at least 6 months (Depression Guideline Treatment: Duration of Antidepressant Medication During the Continuation Phase)</p>	<p>Percent of patients with a diagnosis of major depression or dysthymia who have been on an antidepressant*** for at least 6 months (180 days).</p> <p>Numerator = all patients with a diagnosis of major depression or dysthymia who have been taking an antidepressant*** for at least 6 months (180 days).</p> <p>Denominator = all patients with a diagnosis of major depression or dysthymia for at least 6 months (180 days).</p>	<p>On the last workday of the month, search the registry and count the number of patients with a diagnosis of major depression or dysthymia who have been taking an antidepressant*** for at least 6 months (180 days).</p> <p>Then, count the number of patients with a diagnosis of depression or dysthymia for at least 6 months (180 days). Divide the first number by the second and multiply by 100.</p>	<p>>70%</p>	<p>This measure assesses consistency in use of antidepressant medication over 6 months.</p> <p>Randomized clinical trials have found better outcomes for those taking antidepressants for 6-8 months compared to 3 months.</p> <p>(Similar to HEDIS continuation phase treatment measure)</p>

<p>13. Percent of CSD* patients on an antidepressant*** &/or in psychotherapy within one month of last New Episode PHQ**</p> <p>(Depression Guideline Treatment: Timely Initiation)</p>	<p>Percent of CSD* patients who, within one month (30 days) of last New Episode PHQ**, are on an antidepressant*** and/or in psychotherapy (refers to any type of psychotherapy for which an evidence base exists in the literature for the treatment of acute major depression: e.g.; CBT, IPT, or PST).</p> <p>Numerator= all CSD* patients with a New Episode PHQ** in the last 12 months who were on an antidepressant*** or in psychotherapy within one month (30 days) of last New Episode PHQ**.</p> <p>The patient could have been on antidepressants and/or in psychotherapy before or any time within 30 days after the last New Episode PHQ** (or even before).</p> <p>Denominator=all CSD* patients having a New Episode PHQ** in the last 12 months.</p>	<p>On the last workday of the month, search the registry and count the number of CSD* patients (having a New Episode PHQ** in the last 12 months) who, within one month (30 days) of last New Episode PHQ**, were on an antidepressant*** and/or in psychotherapy. The patient could have been on antidepressants and/or in psychotherapy before or any time within 30 days after the last New Episode PHQ**.</p> <p>Then, count the number of all CSD* patients having New Episode PHQ** in the last 12 months. Divide the first number by the second and multiply by 100.</p>	<p>>80%</p>	<p>This measure assesses use of evidence-based guidelines (medication and/or psychotherapy) for treatment of clinically significant depression.</p> <p>Both medications and certain psychotherapies have been found to be better than usual care (<i>Refs. 2 and 13</i>).</p> <p>Note: The universe of patients (denominator) for this measure is limited to the last 12 months, This enables monitoring of changes in performance in the last 12 calendar months on a continuing basis.</p>
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* **CSD**: A patient with **CSD** (clinically significant depression) is defined as a patient with a diagnosis of depression *and* a new episode PHQ of 10 or greater. CSD is not a DSM-4 or ICD diagnosis, but rather a name (created by the Collaborative faculty) for a clinical syndrome that functions as a close proxy for the diagnosis of major depression. In most cases of CSD, the technical depression “diagnosis” will generally be major depression.

** **New Episode PHQ**: “New Episode PHQ” is defined as the PHQ baseline score, which (along with a diagnosis of depression) begins a new clinical episode of depression “New episode” of depression refers to the clinical determination that a patient is suffering from depression (major, minor, or dysthymia) AND that outcome of the “new episode” will be monitored starting from the date of entry of the “new episode PHQ.” Because depression is a chronic, recurrent illness, some patients may recover from a “new episode” and then experience a relapse or recurrence (that is, a repeat “new episode”). For operational purposes of the Collaborative, a patient should be in remission for at least three months before a clinical determination is made that the patient is experiencing a “new episode”.

*****Antidepressants include the following:**

TRICYCLICS	SSRIs	OTHER ANTIDEPRESSANTS
Amitriptyline (Elavil)	Citalopram (Celexa)	Bupropion SR (Wellbutrin)
Desipramine (Norpramin)	Escitalopram (Lexapro)	Mirtazapine (Remeron)
Doxepine (Sinequan)	Fluoxetine (Prozac)	Nefazodone (Serzone)
Imipramine (Tofranil)	Paroxetine CR (Paxil)	Venlafaxine XR (Effexor)
Nortriptyline (Pamelor)	Sertraline (Zoloft)	

Key points to consider:

- The start of a new episode of depression is a clinical decision. Operationally, for purposes of measurement of process and outcome, a new episode of depression begins with the recording of a numerical value for a “new episode PHQ” *and* the recording of a diagnosis of depression. A new episode of depression could be CSD (*definition above*) or not CSD, with any diagnosis of depression (major, minor, dysthymia, etc.).
- Treatment and measurement for a new episode of depression starts with a clinical decision, not just the PHQ score alone. Upon reaching a clinical decision that a patient suffers from a depression that should be treated or followed (partly based on a PHQ score of 5 or greater), the patient should be entered into the registry. The PHQ score obtained at the time that this clinical decision is made should be recorded as the “new episode PHQ” score in the registry.
- “Remission” ends an episode of depression. For operational purposes of the Collaborative, remission is defined at the attainment of at least one PHQ <5, *along with* a clinical determination that the patient has probably sustained this degree of recovery for a minimum of three consecutive months.
- Each center should develop a written policy that describes which patients should be included or excluded in the Population of Focus - based on clinical judgment. If you do not clarify whether and how patients with psychiatric co morbidity are included in the POF, there may be confusion and variation from clinician to clinician. This will make it more difficult to interpret clinical measures in the collaborative work.
- Patients with bipolar disorder and schizophrenia should not be included in the POF. They are not included in the collaborative depression measures and will not appear in PECS key measurement tracking and reporting. However, separate “clinics” can be created in PECS to track these patients with psychiatric co morbidities. In other words, you can treat these patients, but they should not be included in the POF.
- Patients with depression and alcohol/substance abuse problems can be included in the POF, unless the alcohol/substance disorder predominates the clinical picture, making a clear diagnosis or effective treatment of depression too complicated. This could be evident initially or after some period of treatment. If the latter is the case, then remove the patient from the POF.
- Patients with co-occurring anxiety disorders remain in the POF.
- Patients who have depressive disorders for whom it is necessary to refer them to outside mental health specialists should remain in the POF as long as they remain active patients in the primary care clinic. These patients probably need continued care management and coordination.

Important References Related to Chronic Disease Model and Outcomes for Patients with Depression in Primary Care

Most of the studies documenting the success of the chronic care model for improving outcomes in patients with depression have had multiple components of the model within each intervention. It is difficult to isolate the impact of one component of the chronic care model. Below are a series of articles from the United States that form the foundation for the measures outlined above.

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