eCQM Title	**Preventive Care and Screening: Screening for Depression and Follow-Up Plan**		
eCQM Identifier (Measure Authoring Tool)	2	**eCQM Version Number**	14.0.000
CBE Number	Not Applicable	**GUID**	9a031e24-3d9b-11e1-8634-00237d5bf174
Measurement Period	January 1, 20XX through December 31, 20XX		
Measure Steward	Centers for Medicare & Medicaid Services (CMS)		
Measure Developer	Mathematica		
Endorsed By	None		
Description	Percentage of patients aged 12 years and older screened for depression on the date of the encounter or up to 14 days prior to the date of the encounter using an age-appropriate standardized depression screening tool AND if positive a follow-up plan is documented on the date of or up to two days after the date of the qualifying encounter		
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Measure Scoring	Proportion		
Measure Type	Process		
Stratification	None		
Risk Adjustment	None		
Rate Aggregation	None		
Rationale	Depression affects more than two hundred sixty million people across the world and is a leading cause of disability, with a variety of depressive disorders that are independent risk factors for chronic diseases, such as cardiovascular disease and diabetes, lending screening for depression as paramount to identify depressive disorders that can affect the most vulnerable populations (Costantini et al., 2021). Results from a 2018 U.S. survey indicated that 14.4 percent of adolescents (3.5 million adolescents) had a major depressive episode (MDE) in the past year, with nine percent of adolescents (2.4 million adolescents) having one MDE with severe impairment (Substance Abuse and Mental Health Services Administration, 2019). The odds of a diagnosis of depression are believed to be 2.6 times greater for children and adolescents exposed to trauma as compared to those unexposed or less exposed (Vibhakar et al., 2019). Children and teens with major depressive disorder (MDD) have been found to have difficulty carrying out their daily activities, relating to others, growing up healthy, and are at an increased risk of suicide (Siu on behalf of the U.S. Preventive Services Task Force [USPSTF], 2016). The same 2018 study indicated that 7.2 percent of adults aged 18 or older (17.7 million adults) had at least one MDE with 4.7 percent of adults (11.5 million adults) having one MDE with severe impairment in the past year (Substance Abuse and Mental Health Services Administration, 2019). Moreover, it is estimated 22.9 percent of adult patients with chronic pain (2.2 million adults) were diagnosed with comorbid depression from 2011 to 2015, with an upward trend of prevalence among Black Americans, patients aged 65 to 84 years old, Medicare and Medicaid insured patients, and patients from zip code areas with low annual household incomes (Orhurhu et al., 2019). Depression and other mood disorders, such as bipolar disorder and anxiety disorders, especially during the perinatal period, can have devastating effects on women, infants, and families (American College of Obstetricians and Gynecologists, 2018). It's estimated that the global prevalence of antenatal (or perinatal) depression ranges from 15 to 65 percent, with current or previous exposure to abuse and violence, lack of social support, and family history of mental disorders being risk factors. Depressive symptoms measured during pregnancy have been shown to influence the quality of the postpartum mother-infant relationship (Hazell Raine et al., 2020). Additionally, the risk of low birth weight and preterm birth is higher among infants born from depressed mothers (Dadi, Miller, Bisetegn, & Mwanri, 2020). Negative outcomes associated with depression make it crucial to screen in order to identify and treat depression in its early stages. Multiple social costs of depression have been identified, such as reduced educational achievements, poor financial success and role performance, higher amount of days out of role, and increased risk of job loss (Costantini et al., 2021). Depression also imposes significant economic burden through direct and indirect costs, supporting the need for regular depression screening. "In the United States, an estimated $22.8 billion was spent on depression treatment in 2009, and lost productivity cost an additional estimated $23 billion in 2011" (Siu & USPSTF, 2016, p. 383-384). Numerous studies have found significant disparities in depression prevalence and treatment among racial/ethnic minorities. One study revealed that Indigenous adults are at a high risk for posttraumatic stress disorder, depression, suicide, substance use disorder, and concurrent behavioral health disorders secondary to these initial health problems (Ka'apu and Burnette, 2019). Additionally, though rates of depression are lower among Blacks and Hispanics than among whites, depression among Blacks and Hispanics is likely to be more recurrent. Furthermore, 48 percent of whites receive mental health services, compared to just 31 percent of Blacks and Hispanics, and 22 percent of Asians (American Psychiatric Association, 2017). Asian Americans and Black Americans are also significantly more likely to utilize emergency rooms for depression treatment, which contributes to inconsistent follow-up care (Lee et al., 2014). While primary care providers (PCPs) serve as the first line of defense in the detection of depression, studies show that PCPs fail to recognize up to 46 percent of depressed patients (Borner et al., 2010). "In nationally representative U.S. surveys, about eight percent of adolescents reported having major depression in the past year. Only 36 percent to 44 percent of children and adolescents with depression receive treatment, suggesting that a majority of depressed youth are undiagnosed and untreated" (Siu on behalf of USPSTF, 2016). Furthermore, evidence supports that screening for depression in pregnant and postpartum women is of moderate net benefit, and treatment options for positive depression screening should be available for patients twelve and older including pregnant and postpartum women. This measure seeks to align with USPSTF clinical guideline recommendations as well as the Healthy People 2030 recommendation to increase the proportion of adolescents and adults who are screened for depression and if positive, receive appropriate treatment (U.S. Preventive Services Task Force, 2016; U.S. Department of Health and Human Services, 2020). For patients with depression, rescreening has been shown to be an effective tool for measuring response to therapy, therefore influencing appropriate care adjustments in the treatment of depression (Anderson et al., 2002). Chen et al. noted that when patients were re-administered a screening tool after at least eight weeks after starting treatment, their "score gave primary care physicians a clear idea about the nature of patients' depressive symptoms and gave both the patient and the physician an indication of treatment progress" (Chen et al., 2006).		
Clinical Recommendation Statement	Adolescent Recommendation (12-18 years): "The USPSTF recommends screening for MDD in adolescents aged 12 to 18 years. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up (B recommendation)" (Siu on behalf of USPSTF, 2016). Adult Recommendation (18 years and older): "The USPSTF recommends screening for depression in the general adult population, including pregnant and postpartum women. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up (B recommendation)" (Siu & USPSTF, 2016). "The USPSTF recommends that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions (B recommendation)" (U.S. Preventive Services Task Force, 2019). The American College of Obstetricians and Gynecologists (ACOG) provides the following recommendation: "All obstetrician–gynecologists and other obstetric care providers should complete a full assessment of mood and emotional well-being (including screening for postpartum depression and anxiety with a validated instrument) during the comprehensive postpartum visit for each patient" (American College of Obstetricians and Gynecologists, 2018). The Institute for Clinical Systems Improvement (ICSI) health care guideline, Adult Depression in Primary Care, provides the following recommendations: 1. "Clinicians should routinely screen all adults for depression using a standardized instrument." 2. "Clinicians should establish and maintain follow-up with patients." 3. "Clinicians should screen and monitor depression in pregnant and post-partum women" (Trangle et al., 2016).		
Improvement Notation	Higher score indicates better quality		
Reference	Reference Type: CITATION Reference Text: 'American College of Obstetricians and Gynecologists, Committee on Obstetric Practice. (2018). ACOG Committee Opinion Number 757: Screening for perinatal depression. Obstetrics and Gynecology, 132(5), e208-e212. doi: 10.1097/AOG.0000000000002927'		
Reference	Reference Type: CITATION Reference Text: 'American Psychiatric Association. (2017). Mental Health Disparities: Diverse Populations. Retrieved from https://www.psychiatry.org/psychiatrists/diversity/education/mental-health-facts'		
Reference	Reference Type: CITATION Reference Text: 'Anderson, J., Michalak, E., & Lam, R. (2002). Depression in primary care: Tools for screening, diagnosis, and measuring response to treatment. BCMJ, 44(8),415-419. https://bcmj.org/articles/depression-primary-care-tools-screening-diagnosis-and-measuring-response-treatment'		
Reference	Reference Type: CITATION Reference Text: 'Borner, I., Braunstein, J. W., St. Victor, R., & Pollack, J. (2010). Evaluation of a 2-question screening tool for detecting depression in adolescents in primary care. Clinical Pediatrics, 49(10), 947-995. doi:10.1177/0009922810370203'		
Reference	Reference Type: CITATION Reference Text: 'Chen, T., Huang, F., Chang, C., & Chung, H. (2006), Using the PHQ-9 for depression screening and treatment monitoring for Chinese Americans in primary care. Psychiatr Serv., 57(7),976–981. https://ps.psychiatryonline.org/doi/full/10.1176/ps.2006.57.7.976'		
Reference	Reference Type: CITATION Reference Text: 'Costantini, L., Costanza, A., Odone, A., Aguglia, A., Escelsior, A., Serafini, G., Amore, M., & Amerio, A. (2021). A breakthrough in research on depression screening: from validation to efficacy studies. Acta bio-medica : Atenei Parmensis, 92(3), e2021215. https://doi.org/10.23750/abm.v92i3.11574'		
Reference	Reference Type: CITATION Reference Text: 'Dadi, A. F., Miller, E. R., Bisetegn, T. A., & Mwanri, L. (2020). Global burden of antenatal depression and its association with adverse birth outcomes: an umbrella review. BMC public health, 20(1), 173. https://doi.org/10.1186/s12889-020-8293-9'		
Reference	Reference Type: CITATION Reference Text: 'Hazell Raine, K., Nath, S., Howard, L. M., Cockshaw, W., Boyce, P., Sawyer, E., & Thorpe, K. (2020). Associations between prenatal maternal mental health indices and mother-infant relationship quality 6 to 18 months' postpartum: A systematic review. Infant mental health journal, 41(1), 24–39. https://doi.org/10.1002/imhj.21825'		
Reference	Reference Type: CITATION Reference Text: 'Ka'apu, K., & Burnette, C. E. (2019). A Culturally Informed Systematic Review of Mental Health Disparities Among Adult Indigenous Men and Women of the USA: What is known?. British journal of social work, 49(4), 880–898. https://doi.org/10.1093/bjsw/bcz009'		
Reference	Reference Type: CITATION Reference Text: 'Lee, S. Y., Xue, Q. L., Spira, A. P., & Lee, H. B. (2014). Racial and ethnic differences in depressive subtypes and access to mental health care in the United States. Journal of affective disorders, 155, 130–137. https://doi.org/10.1016/j.jad.2013.10.037'		
Reference	Reference Type: CITATION Reference Text: 'Orhurhu, V., Olusunmade, M., Akinola, Y., Urits, I., Orhurhu, M. S., Viswanath, O., … Gill, J. S. (2019). Depression Trends in Patients with Chronic Pain: An Analysis of the Nationwide Inpatient Sample. Pain physician, 22(5), E487–E494.'		
Reference	Reference Type: CITATION Reference Text: 'Siu, A. L., & USPSTF. (2016). Screening for depression in adults: U.S. Preventive Services Task Force recommendation statement. Journal of the American Medical Association, 315(4), 380-387. doi:10.1001/jama.2015.18392.'		
Reference	Reference Type: CITATION Reference Text: 'Siu, A. L., on behalf of USPSTF. (2016). Screening for depression in children and adolescents: U.S. Preventive Services Task Force recommendation statement. Annals of Internal Medicine, 164(5), 360-366. doi:10.7326/M15-2957'		
Reference	Reference Type: CITATION Reference Text: 'Substance Abuse and Mental Health Services Administration. (2019). Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health (HHS Publication No. PEP19 5068, NSDUH Series H 54). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.htm#mde'		
Reference	Reference Type: CITATION Reference Text: 'Trangle, M., Gursky, J., Haight, R., Hardwig, J., Hinnenkamp, T., Kessler, D.,… Myszkowski, M. (2016). Adult depression in primary care. Bloomington, MN: Institute for Clinical Systems Improvement. Retrieved from https://www.icsi.org/guideline/depression/'		
Reference	Reference Type: CITATION Reference Text: 'U.S. Department of Health and Human Services. (2020). Healthy People 2030: Depression in adults: Screening. Washington, DC: U.S. Department of Health and Human Services. Retrieved from https://health.gov/healthypeople/tools-action/browse-evidence-based-resources/depression-adults-screening'		
Reference	Reference Type: CITATION Reference Text: 'U.S. Preventive Services Task Force. (2016). Final recommendation statement: depression in adults: screening. Retrieved from https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/depression-in-adults-screening'		
Reference	Reference Type: CITATION Reference Text: 'U.S. Preventive Services Task Force. (2019). Interventions to Prevent Perinatal Depression: US Preventive Services Task Force Recommendation Statement. JAMA, 321(6):580–587. doi:10.1001/jama.2019.0007'		
Reference	Reference Type: CITATION Reference Text: 'Vibhakar, V., Allen, L. R., Gee, B., & Meiser-Stedman, R. (2019). A systematic review and meta-analysis on the prevalence of depression in children and adolescents after exposure to trauma. Journal of affective disorders, 255, 77–89. https://doi.org/10.1016/j.jad.2019.05.005'		
Definition	Screening: Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms. Standardized Depression Screening Tool: A normalized and validated depression screening tool developed for the patient population in which it is being utilized. Examples of standardized depression screening tools include but are not limited to: - Adolescent Screening Tools (12-17 years) - Patient Health Questionnaire for Adolescents (PHQ-A) - Beck Depression Inventory-Primary Care Version (BDI-PC) - Mood Feeling Questionnaire (MFQ) - Center for Epidemiologic Studies Depression Scale (CES-D) - Patient Health Questionnaire (PHQ-9) - Pediatric Symptom Checklist (PSC-17) - Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (PRIME-MD PHQ-2) - Adult Screening Tools (18 years and older) - Patient Health Questionnaire (PHQ-9) - Beck Depression Inventory (BDI or BDI-II) - Center for Epidemiologic Studies Depression Scale (CES-D) - Depression Scale (DEPS) - Duke Anxiety-Depression Scale (DADS) - Geriatric Depression Scale (GDS) - Cornell Scale for Depression in Dementia (CSDD) - PRIME MD-PHQ-2 - Hamilton Rating Scale for Depression (HAM-D) - Quick Inventory of Depressive Symptomatology Self-Report (QID-SR) - Computerized Adaptive Testing Depression Inventory (CAT-DI) - Computerized Adaptive Diagnostic Screener (CAD-MDD) - Perinatal Screening Tools - Edinburgh Postnatal Depression Scale - Postpartum Depression Screening Scale - Patient Health Questionnaire 9 (PHQ-9) - Beck Depression Inventory - Beck Depression Inventory-II - Center for Epidemiologic Studies Depression Scale - Zung Self-rating Depression Scale Follow-Up Plan: Documented follow-up for a positive depression screening must include one or more of the following: - Referral to a provider for additional evaluation and assessment to formulate a follow-up plan for a positive depression screen - Pharmacological interventions - Other interventions or follow-up for the diagnosis or treatment of depression		
Guidance	The intent of the measure is to screen all patients for depression except those with a diagnosis of bipolar disorder. Patients who have ever been diagnosed with bipolar disorder prior to the qualifying encounter will be excluded from the measure regardless of whether the diagnosis is active or not. A depression screen is completed on the date of the encounter or up to 14 calendar days prior to the date of the encounter using an age-appropriate standardized depression screening tool AND if positive, a follow-up plan must be documented on the date of or up to two calendar days after the date of the encounter, such as referral to a provider for additional evaluation, pharmacological interventions, or other interventions for the treatment of depression. An example to illustrate the follow-up plan documentation timing: if the encounter is on a Monday from 3-4 pm (day 0) and the patient screens positive, the clinician has through anytime on Wednesday (day 2) to complete follow-up plan documentation. This measure does not require documentation of a specific score, just whether results of the normalized and validated depression screening tool used are considered positive or negative. Each standardized screening tool provides guidance on whether a particular score is considered positive for depression. This eCQM is a patient-based measure. Depression screening is required once per measurement period, not at all encounters. Screening Tools: - An age-appropriate, standardized, and validated depression screening tool must be used for numerator compliance. - The name of the age-appropriate standardized depression screening tool utilized must be documented in the medical record. - The depression screening must be reviewed and addressed by the provider, filing the code, on the date of the encounter. Positive pre-screening results indicating a patient is at high risk for self-harm should receive more urgent intervention as determined by the provider practice. - The screening should occur during a qualifying encounter or up to 14 calendar days prior to the date of the qualifying encounter. - The measure assesses the most recent depression screening completed either during the qualifying encounter or within the 14 calendar days prior to that encounter. Therefore, a clinician would not be able to complete another screening at the time of the encounter to count towards a follow-up, because that would serve as the most recent screening. In order to satisfy the follow-up requirement for a patient screening positively, the eligible clinician would need to provide one of the aforementioned follow-up actions, which does not include use of a standardized depression screening tool. Follow-Up Plan: The follow-up plan MUST still be provided for and discussed with the patient during the qualifying encounter used to evaluate the numerator. However, documentation of the follow-up plan can occur up to two calendar days after the qualifying encounter, in accordance with the policies of an eligible clinician or provider's practice or health system. All services should be documented during, or as soon as practicable, after the qualifying encounter in order to maintain an accurate medical record. The follow-up plan must be related to a positive depression screening, for example: "Patient referred for psychiatric evaluation due to positive depression screening." Examples of a follow-up plan include but are not limited to: - Referral to a provider or program for further evaluation for depression, for example, referral to a psychiatrist, psychiatric nurse practitioner, psychologist, clinical social worker, mental health counselor, or other mental health service such as family or group therapy, support group, depression management program, or other service for treatment of depression - Other interventions designed to treat depression such as behavioral health evaluation, psychotherapy, pharmacological interventions, or additional treatment options Should a patient screen positive for depression, a clinician should: - Only order pharmacological intervention when appropriate and after sufficient diagnostic evaluation. However, for the purposes of this measure, additional screening and assessment during the qualifying encounter will not qualify as a follow-up plan. - Opt to complete a suicide risk assessment when appropriate and based on individual patient characteristics. However, for the purposes of this measure, a suicide risk assessment or an additional screening using a standardized tool will not qualify as a follow-up plan. This version of the eCQM uses QDM version 5.6. Please refer to the eCQI resource center (https://ecqi.healthit.gov/qdm) for more information on the QDM.		
Transmission Format	TBD		
Initial Population	All patients aged 12 years and older at the beginning of the measurement period with at least one qualifying encounter during the measurement period		
Denominator	Equals Initial Population		
Denominator Exclusions	Patients who have ever been diagnosed with bipolar disorder at any time prior to the qualifying encounter		
Numerator	Patients screened for depression on the date of the encounter or up to 14 days prior to the date of the encounter using an age-appropriate standardized tool AND if positive, a follow-up plan is documented on the date of or up to two days after the date of the qualifying encounter		
Numerator Exclusions	Not Applicable		
Denominator Exceptions	Patient Reason(s) Patient refuses to participate in or complete the depression screening OR Medical Reason(s) Documentation of medical reason for not screening patient for depression (e.g., cognitive, functional, or motivational limitations that may impact accuracy of results; patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status)		
Supplemental Data Elements	For every patient evaluated by this measure also identify payer, race, ethnicity and sex		

Table of Contents

Population Criteria

Initial Population

```
"Patient Age 12 Years or Older at Start of Measurement Period"
  and exists ( "Qualifying Encounter During Measurement Period" )
```

Denominator

```
"Initial Population"
```

Denominator Exclusions

```
exists "History of Bipolar Diagnosis Before Qualifying Encounter"
```

Numerator

```
( "Patient Age 12 to 16 Years at Start of Measurement Period"
    and ( "Has Most Recent Adolescent Screening Negative"
        or exists "Most Recent Adolescent Depression Screening Positive and Follow Up Provided"
    )
)
  or ( "Patient Age 17 Years at Start of Measurement Period"
      and ( "Has Most Recent Adolescent Screening Negative"
          or exists "Most Recent Adolescent Depression Screening Positive and Follow Up Provided"
          or "Has Most Recent Adult Screening Negative"
          or exists "Most Recent Adult Depression Screening Positive and Follow Up Provided"
      )
  )
  or ( "Patient Age 18 Years or Older at Start of Measurement Period"
      and ( "Has Most Recent Adult Screening Negative"
          or exists "Most Recent Adult Depression Screening Positive and Follow Up Provided"
      )
  )
```

Numerator Exclusions

None

Denominator Exceptions

```
( exists "Medical or Patient Reason for Not Screening Adolescent for Depression"
    and not "Has Adolescent Depression Screening"
)
  or ( exists "Medical or Patient Reason for Not Screening Adult for Depression"
      and not "Has Adult Depression Screening"
  )
```

Stratification

None

Definitions

Denominator

```
"Initial Population"
```

Denominator Exceptions

```
( exists "Medical or Patient Reason for Not Screening Adolescent for Depression"
    and not "Has Adolescent Depression Screening"
)
  or ( exists "Medical or Patient Reason for Not Screening Adult for Depression"
      and not "Has Adult Depression Screening"
  )
```

Denominator Exclusions

```
exists "History of Bipolar Diagnosis Before Qualifying Encounter"
```

Follow Up Intervention for Positive Adolescent Depression Screening

```
["Medication, Order": "Adolescent Depression Medications"]
  union ["Intervention, Order": "Referral for Adolescent Depression"]
  union ["Intervention, Performed": "Follow Up for Adolescent Depression"]
```

Follow Up Intervention for Positive Adult Depression Screening

```
["Medication, Order": "Adult Depression Medications"]
  union ["Intervention, Order": "Referral for Adult Depression"]
  union ["Intervention, Performed": "Follow Up for Adult Depression"]
```

Has Adolescent Depression Screening

```
exists ( ["Assessment, Performed": "Adolescent depression screening assessment"] AdolescentScreening
    with "Qualifying Encounter During Measurement Period" QualifyingEncounter
      such that Global."NormalizeInterval" ( AdolescentScreening.relevantDatetime, AdolescentScreening.relevantPeriod ) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
        and AdolescentScreening.result is not null
)
```

Has Adult Depression Screening

```
exists ( ["Assessment, Performed": "Adult depression screening assessment"] AdultScreening
    with "Qualifying Encounter During Measurement Period" QualifyingEncounter
      such that Global."NormalizeInterval" ( AdultScreening.relevantDatetime, AdultScreening.relevantPeriod ) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
        and AdultScreening.result is not null
)
```

Has Most Recent Adolescent Screening Negative

```
( "Most Recent Adolescent Depression Screening" AdolescentScreen
    where AdolescentScreen.result ~ "Depression screening negative (finding)"
) is not null
```

Has Most Recent Adult Screening Negative

```
( "Most Recent Adult Depression Screening" AdultScreen
    where AdultScreen.result ~ "Depression screening negative (finding)"
) is not null
```

History of Bipolar Diagnosis Before Qualifying Encounter

```
["Diagnosis": "Bipolar Disorder"] BipolarDiagnosis
  with "Qualifying Encounter During Measurement Period" QualifyingEncounter
    such that BipolarDiagnosis.prevalencePeriod starts before QualifyingEncounter.relevantPeriod
```

Initial Population

```
"Patient Age 12 Years or Older at Start of Measurement Period"
  and exists ( "Qualifying Encounter During Measurement Period" )
```

Medical or Patient Reason for Not Screening Adolescent for Depression

```
["Assessment, Not Performed": "Adolescent depression screening assessment"] NoAdolescentScreen
  with "Qualifying Encounter During Measurement Period" QualifyingEncounter
    such that NoAdolescentScreen.authorDatetime during QualifyingEncounter.relevantPeriod
  where ( NoAdolescentScreen.negationRationale ~ "Depression screening declined (situation)"
      or NoAdolescentScreen.negationRationale in "Medical Reason"
  )
```

Medical or Patient Reason for Not Screening Adult for Depression

```
["Assessment, Not Performed": "Adult depression screening assessment"] NoAdultScreen
  with "Qualifying Encounter During Measurement Period" QualifyingEncounter
    such that NoAdultScreen.authorDatetime during QualifyingEncounter.relevantPeriod
  where ( NoAdultScreen.negationRationale ~ "Depression screening declined (situation)"
      or NoAdultScreen.negationRationale in "Medical Reason"
  )
```

Most Recent Adolescent Depression Screening

```
Last(["Assessment, Performed": "Adolescent depression screening assessment"] AdolescentDepressionScreening
    with "Qualifying Encounter During Measurement Period" QualifyingEncounter
      such that Global."NormalizeInterval"(AdolescentDepressionScreening.relevantDatetime, AdolescentDepressionScreening.relevantPeriod) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
        and AdolescentDepressionScreening.result is not null
    sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)
)
```

Most Recent Adolescent Depression Screening Positive and Follow Up Provided

```
from
  "Most Recent Adolescent Depression Screening" LastAdolescentScreen,
  "Follow Up Intervention for Positive Adolescent Depression Screening" FollowUpPositiveAdolescentScreen,
  "Qualifying Encounter During Measurement Period" QualifyingEncounter
  where Global."NormalizeInterval" ( LastAdolescentScreen.relevantDatetime, LastAdolescentScreen.relevantPeriod ) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
    and LastAdolescentScreen.result ~ "Depression screening positive (finding)"
    and ( start of Global."NormalizeInterval" ( FollowUpPositiveAdolescentScreen.relevantDatetime, FollowUpPositiveAdolescentScreen.relevantPeriod ) during QualifyingEncounter.relevantPeriod
        or FollowUpPositiveAdolescentScreen.authorDatetime 2 days or less on or after day of end of QualifyingEncounter.relevantPeriod
    )
    and Coalesce(start of Global."NormalizeInterval"(FollowUpPositiveAdolescentScreen.relevantDatetime, FollowUpPositiveAdolescentScreen.relevantPeriod), FollowUpPositiveAdolescentScreen.authorDatetime) during "Measurement Period"
```

Most Recent Adult Depression Screening

```
Last(["Assessment, Performed": "Adult depression screening assessment"] AdultDepressionScreening
    with "Qualifying Encounter During Measurement Period" QualifyingEncounter
      such that Global."NormalizeInterval"(AdultDepressionScreening.relevantDatetime, AdultDepressionScreening.relevantPeriod) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
        and AdultDepressionScreening.result is not null
    sort by start of Global."NormalizeInterval"(relevantDatetime, relevantPeriod)
)
```

Most Recent Adult Depression Screening Positive and Follow Up Provided

```
from
  "Most Recent Adult Depression Screening" LastAdultScreen,
  "Follow Up Intervention for Positive Adult Depression Screening" FollowUpPositiveAdultScreen,
  "Qualifying Encounter During Measurement Period" QualifyingEncounter
  where Global."NormalizeInterval" ( LastAdultScreen.relevantDatetime, LastAdultScreen.relevantPeriod ) 14 days or less on or before day of start of QualifyingEncounter.relevantPeriod
    and LastAdultScreen.result ~ "Depression screening positive (finding)"
    and ( start of Global."NormalizeInterval" ( FollowUpPositiveAdultScreen.relevantDatetime, FollowUpPositiveAdultScreen.relevantPeriod ) during QualifyingEncounter.relevantPeriod
        or FollowUpPositiveAdultScreen.authorDatetime 2 days or less on or after day of end of QualifyingEncounter.relevantPeriod
    )
    and Coalesce(start of Global."NormalizeInterval"(FollowUpPositiveAdultScreen.relevantDatetime, FollowUpPositiveAdultScreen.relevantPeriod), FollowUpPositiveAdultScreen.authorDatetime) during "Measurement Period"
```

Numerator

```
( "Patient Age 12 to 16 Years at Start of Measurement Period"
    and ( "Has Most Recent Adolescent Screening Negative"
        or exists "Most Recent Adolescent Depression Screening Positive and Follow Up Provided"
    )
)
  or ( "Patient Age 17 Years at Start of Measurement Period"
      and ( "Has Most Recent Adolescent Screening Negative"
          or exists "Most Recent Adolescent Depression Screening Positive and Follow Up Provided"
          or "Has Most Recent Adult Screening Negative"
          or exists "Most Recent Adult Depression Screening Positive and Follow Up Provided"
      )
  )
  or ( "Patient Age 18 Years or Older at Start of Measurement Period"
      and ( "Has Most Recent Adult Screening Negative"
          or exists "Most Recent Adult Depression Screening Positive and Follow Up Provided"
      )
  )
```

Patient Age 12 to 16 Years at Start of Measurement Period

```
AgeInYearsAt(date from start of "Measurement Period") in Interval[12, 16]
```

Patient Age 12 Years or Older at Start of Measurement Period

```
AgeInYearsAt(date from start of "Measurement Period") >= 12
```

Patient Age 17 Years at Start of Measurement Period

```
AgeInYearsAt(date from start of "Measurement Period") = 17
```

Patient Age 18 Years or Older at Start of Measurement Period

```
AgeInYearsAt(date from start of "Measurement Period") >= 18
```

Qualifying Encounter During Measurement Period

```
( ["Encounter, Performed": "Encounter to Screen for Depression"]
  union ["Encounter, Performed": "Physical Therapy Evaluation"]
  union ["Encounter, Performed": "Telephone Visits"] ) QualifyingEncounter
  where QualifyingEncounter.relevantPeriod during "Measurement Period"
```

SDE Ethnicity

```
["Patient Characteristic Ethnicity": "Ethnicity"]
```

SDE Payer

```
["Patient Characteristic Payer": "Payer Type"]
```

SDE Race

```
["Patient Characteristic Race": "Race"]
```

SDE Sex

```
["Patient Characteristic Sex": "ONC Administrative Sex"]
```

Functions

Global.NormalizeInterval(pointInTime DateTime, period Interval<DateTime>)

```
if pointInTime is not null then Interval[pointInTime, pointInTime]
  else if period is not null then period
  else null as Interval<DateTime>
```

Terminology

- code "Adolescent depression screening assessment" ("LOINC Code (73831-0)")
- code "Adult depression screening assessment" ("LOINC Code (73832-8)")
- code "Depression screening declined (situation)" ("SNOMEDCT Code (720834000)")
- code "Depression screening negative (finding)" ("SNOMEDCT Code (428171000124102)")
- code "Depression screening positive (finding)" ("SNOMEDCT Code (428181000124104)")
- valueset "Adolescent Depression Medications" (2.16.840.1.113883.3.526.3.1567)
- valueset "Adult Depression Medications" (2.16.840.1.113883.3.526.3.1566)
- valueset "Bipolar Disorder" (2.16.840.1.113883.3.67.1.101.1.128)
- valueset "Encounter to Screen for Depression" (2.16.840.1.113883.3.600.1916)
- valueset "Ethnicity" (2.16.840.1.114222.4.11.837)
- valueset "Follow Up for Adolescent Depression" (2.16.840.1.113883.3.526.3.1569)
- valueset "Follow Up for Adult Depression" (2.16.840.1.113883.3.526.3.1568)
- valueset "Medical Reason" (2.16.840.1.113883.3.526.3.1007)
- valueset "ONC Administrative Sex" (2.16.840.1.113762.1.4.1)
- valueset "Payer Type" (2.16.840.1.114222.4.11.3591)
- valueset "Physical Therapy Evaluation" (2.16.840.1.113883.3.526.3.1022)
- valueset "Race" (2.16.840.1.114222.4.11.836)
- valueset "Referral for Adolescent Depression" (2.16.840.1.113883.3.526.3.1570)
- valueset "Referral for Adult Depression" (2.16.840.1.113883.3.526.3.1571)
- valueset "Telephone Visits" (2.16.840.1.113883.3.464.1003.101.12.1080)

Data Criteria (QDM Data Elements)

- "Assessment, Not Performed: Adolescent depression screening assessment" using "Adolescent depression screening assessment (LOINC Code 73831-0)"
- "Assessment, Not Performed: Adult depression screening assessment" using "Adult depression screening assessment (LOINC Code 73832-8)"
- "Assessment, Performed: Adolescent depression screening assessment" using "Adolescent depression screening assessment (LOINC Code 73831-0)"
- "Assessment, Performed: Adult depression screening assessment" using "Adult depression screening assessment (LOINC Code 73832-8)"
- "Diagnosis: Bipolar Disorder" using "Bipolar Disorder (2.16.840.1.113883.3.67.1.101.1.128)"
- "Encounter, Performed: Encounter to Screen for Depression" using "Encounter to Screen for Depression (2.16.840.1.113883.3.600.1916)"
- "Encounter, Performed: Physical Therapy Evaluation" using "Physical Therapy Evaluation (2.16.840.1.113883.3.526.3.1022)"
- "Encounter, Performed: Telephone Visits" using "Telephone Visits (2.16.840.1.113883.3.464.1003.101.12.1080)"
- "Intervention, Order: Referral for Adolescent Depression" using "Referral for Adolescent Depression (2.16.840.1.113883.3.526.3.1570)"
- "Intervention, Order: Referral for Adult Depression" using "Referral for Adult Depression (2.16.840.1.113883.3.526.3.1571)"
- "Intervention, Performed: Follow Up for Adolescent Depression" using "Follow Up for Adolescent Depression (2.16.840.1.113883.3.526.3.1569)"
- "Intervention, Performed: Follow Up for Adult Depression" using "Follow Up for Adult Depression (2.16.840.1.113883.3.526.3.1568)"
- "Medication, Order: Adolescent Depression Medications" using "Adolescent Depression Medications (2.16.840.1.113883.3.526.3.1567)"
- "Medication, Order: Adult Depression Medications" using "Adult Depression Medications (2.16.840.1.113883.3.526.3.1566)"
- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer Type" using "Payer Type (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex (2.16.840.1.113762.1.4.1)"

Supplemental Data Elements

SDE Ethnicity

```
["Patient Characteristic Ethnicity": "Ethnicity"]
```

SDE Payer

```
["Patient Characteristic Payer": "Payer Type"]
```

SDE Race

```
["Patient Characteristic Race": "Race"]
```

SDE Sex

```
["Patient Characteristic Sex": "ONC Administrative Sex"]
```

Risk Adjustment Variables

None

Measure Set	Preventive Care and Screening