

Proposed Changes to Existing Measures for HEDIS®¹ MY 2020 **Depression Screening and Follow-Up Measures**

NCQA seeks comments on proposed modifications to the three HEDIS depression screening and follow-up measures:

- *Depression Screening and Follow-Up for Adolescents and Adults (DSF).*
- *Prenatal Depression Screening and Follow-Up (PND).*
- *Postpartum Depression Screening and Follow-Up (PDS).*

These measures assess the percentage of members who were screened for depression using a standardized tool and, if screened positive, received appropriate follow-up care within 30 days of a positive screen. NCQA proposes to raise the thresholds for determining a positive screen across depression screening tools that identify members to receive follow-up care.

Since the depression screening and follow-up measures were introduced to HEDIS, NCQA has received feedback from stakeholders that a higher threshold to identify members who screen positive will help target available resources to those with a clearer need for follow-up care.

NCQA reviewed thresholds for a positive screen across screening tools and proposed updates which are noted in the DSF measure specification. These updated thresholds would also be implemented in the PND and PDS measures. NCQA also proposes to combine the 18–44 and 45–64 age ranges in the DSF measure to create an 18–64 age range. When DSF was introduced, the 18–44 range provided results for members of child-bearing age, to address depression screening in the perinatal population. Because NCQA has since introduced two screening measures specific to this population, it is no longer needed in the DSF measure.

Our expert panels support the revised thresholds to identify members who screen positive and the proposed change to combine the age ranges in the DSF measure.

Supporting documents include the draft DSF specification and evidence workups.

NCQA acknowledges the contributions of the Behavioral Health Measurement Advisory Panel, the National Collaborative for Innovation in Quality Measurement Advisory Panel, the Perinatal Depression Expert Panel and the Geriatric Measurement Advisory Panel.

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Depression Screening and Follow-Up for Adolescents and Adults (DSF)*

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SUMMARY OF CHANGES TO HEDIS MEASUREMENT YEAR 2020

- Combined the 18–44 and 45–64 age stratifications to create an 18–64 age stratification.
- Revised the positive finding threshold for the depression screening tools.

Description

The percentage of members 12 years of age and older who were screened for clinical depression using a standardized instrument and, if screened positive, received follow-up care.

- *Depression Screening.* The percentage of members who were screened for clinical depression using a standardized instrument.
- *Follow-Up on Positive Screen.* The percentage of members who received follow-up care within 30 days of a positive depression screen finding.

Measurement Period

January 1–December 31.

Clinical Recommendation Statement

The U.S. Preventive Services Task Force (USPSTF) recommends screening for depression among adolescents 12–18 years and the general adult population, including pregnant and postpartum women. The USPSTF also recommends that screening be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment and appropriate follow-up.

References

U.S. Preventive Services Task Force. 2016. “Screening for Depression in Children and Adolescents: U.S. Preventive Services Task Force Recommendation Statement.” *Annals of Internal Medicine* 164:360–6.

U.S. Preventive Services Task Force. 2016. “Screening for Major Depressive Disorder in Adults: US Preventive Services Task Force Recommendation Statement.” *Journal of the American Medical Association* 315(4):380–7.

Characteristics

Scoring	Proportion.
Type	Process.
Item count	Person.
Stratification	1. Commercial: 12–17.* 5. Medicaid: 12–17. 9. Medicare: 18–64. 2. Commercial: 18–64.* 6. Medicaid: 18–64. 10. Medicare: 45–64. 3. Commercial: 45–64.* 7. Medicaid: 45–64. 11. Medicare: 65+. 4. Commercial: 65+*. 8. Medicaid: 65+. <i>*Note that “Commercial” plans can be identified via the “Private Health Insurance” Direct Reference Code.</i>
Risk adjustment	None.
Improvement notation	A higher rate indicates better performance.
Guidance	Allocation: The member was enrolled with a medical benefit throughout the Participation Period. Requirements: - This measure requires the use of an age-appropriate screening instrument. The member’s age is used to select the appropriate depression screening instrument. - Depression screening captured in health risk assessments or other types of health assessments are allowed if the questions align with a specific instrument that is validated for depression screening. For example, if a health risk assessment includes questions from the PHQ-2, it counts as screening if the member answered the questions and a total score is calculated. Reporting: The total for each product line is the sum of the age stratifications.

Definitions

Depression screening instruments	A standard assessment instrument that has been normalized and validated for the appropriate patient population. Eligible screening instruments with thresholds for positive findings include:
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Instruments for Adolescents (12–17 years)	Positive Finding
Patient Health Questionnaire (PHQ-9)®	Total Score ≥5 ≥10
Patient Health Questionnaire Modified for Teens (PHQ-9M)®	Total Score ≥5 ≥10
PRIME MD-PHQ2®	Total Score ≥3
Beck Depression Inventory-Fast Screen (BDI-FS)®*	Total Score ≥4 ≥8
Center for Epidemiologic Studies Depression Scale-Revised (CESD-R)	Total Score ≥17
Edinburgh Postnatal Depression Scale (EPDS)	Total Score ≥9 ≥10

PROMIS Depression	Total Score (T Score) ≥52.5 ≥60
Instruments for Adults (18+ years)	Positive Finding
Patient Health Questionnaire (PHQ-9) [®]	Total Score ≥5 ≥10
PRIME MD-PHQ2 [®]	Total Score ≥3
Beck Depression Inventory-Fast Screen (BDI-FS) ^{®*}	Total Score ≥4 ≥8
Beck Depression Inventory (BDI-II)	Total Score ≥44 ≥20
Center for Epidemiologic Studies Depression Scale-Revised (CESD-R)	Total Score ≥17
Duke Anxiety-Depression Scale (DADS) ^{®*}	Total Score ≥30
Geriatric Depression Scale Short Form (GDS)	Total Score ≥5
Geriatric Depression Scale Long Form (GDS)	Total Score ≥10
Edinburgh Postnatal Depression Scale (EPDS)	Total Score ≥9 ≥10
My Mood Monitor (M-3) [®]	Total Score ≥5
PROMIS Depression	Total Score (T Score) ≥52.5 ≥60
Clinically Useful Depression Outcome Scale (CUDOS)	Total Score ≥44 ≥31

*Proprietary; may be cost or licensing requirement associated with use.

Participation The identifiers and descriptors for each organization's coverage used to define members' eligibility for measure reporting. Allocation for HEDIS reporting is based on eligibility during the Participation Period.

Participation Period The Measurement Period.

Initial Population

Members 12 years of age and older at the start of the Measurement Period who also meet criteria for Participation.

Exclusions

Exclusions Exclude members with any of the following:

- Bipolar disorder during the year prior to the Measurement Period.
- Depression during the year prior to the Measurement Period.
- In hospice or using hospice services during the Measurement Period.

Depression Screening (Population Criteria 1)

Denominator 1 The Initial Population, minus Exclusions.

Numerator 1 Members with documentation of depression screening performed using an age-appropriate standardized instrument between January 1 and December 1 of the Measurement Period.

Follow-Up on Positive Screen (Population Criteria 2)

Denominator 2 All members from Numerator 1 with a positive depression screen finding between January 1 and December 1 of the Measurement Period.

Numerator 2 Members who received follow-up care on or up to 30 days after the date of the first positive screen.

Any of the following on or 30 days after the first positive screen:

- An outpatient or telephone follow-up visit with a diagnosis of depression or other behavioral health condition.
- A depression case management encounter that documents assessment for symptoms of depression or a diagnosis of depression or other behavioral health condition.
- A behavioral health encounter, including assessment, therapy, collaborative care or medication management.
- A dispensed antidepressant medication.

or

- Receipt of an assessment on the same day and subsequent to the positive screen.
 - Documentation of additional depression screening indicating either no depression or no symptoms that require follow-up. For example, if the initial positive screen resulted from a PHQ-2 score, documentation of a negative finding from a subsequent PHQ-9 qualifies as evidence of follow-up.

Data Criteria (Element Level)

Value Sets:

- Diagnosis: Bipolar Disorder (2.16.840.1.113883.3.464.1004.1044)
- Diagnosis: Depression (2.16.840.1.113883.3.464.1004.1390)
- Diagnosis: Other Bipolar Disorder (2.16.840.1.113883.3.464.1004.1399)
- Encounter, Performed: Behavioral Health Encounter (2.16.840.1.113883.3.464.1004.1383)
- Encounter, Performed: Depression Case Management Encounter (2.16.840.1.113883.3.464.1004.1389)
- Encounter, Performed: Follow Up Visit (2.16.840.1.113883.3.464.1004.1385)
- Encounter, Performed: Hospice Encounter (2.16.840.1.113883.3.464.1004.1761)
- Intervention, Order: Hospice Intervention (2.16.840.1.113883.3.464.1004.1762)
- Intervention, Performed: Hospice Intervention (2.16.840.1.113883.3.464.1004.1762)
- Medication, Dispensed: Antidepressant Medication (2.16.840.1.113883.3.464.1004.1503)

Direct Reference Codes:

- Assessment, Performed: Beck Depression Inventory Fast Screen total score [BDI] (LOINC Code 89208-3)
- Assessment, Performed: Beck Depression Inventory II total score [BDI] (LOINC Code 89209-1)
- Assessment, Performed: Center for Epidemiologic Studies Depression Scale-Revised total score [CESD-R] (LOINC Code 89205-9)
- Assessment, Performed: Clinically Useful Depression Outcome Scale [CUDOS] (LOINC Code 90221-3)
- Assessment, Performed: Final score [DADS] (LOINC Code 90853-3)
- Assessment, Performed: Edinburgh Postnatal Depression Scale [EPDS] (LOINC Code 71354-5)
- Assessment, Performed: Geriatric depression scale (GDS) short version total (LOINC Code 48545-8)
- Assessment, Performed: Geriatric depression scale (GDS) total (LOINC Code 48544-1)
- Assessment, Performed: Patient Health Questionnaire 2 item (PHQ-2) total score [Reported] (LOINC Code 55758-7)
- Assessment, Performed: Patient Health Questionnaire 9 item (PHQ-9) total score [Reported] (LOINC Code 44261-6)
- Assessment, Performed: Patient Health Questionnaire 9: Modified for Teens total score [Reported.PHQ.Teen] (LOINC Code 89204-2)
- Assessment, Performed: PROMIS 29 Depression score T score (LOINC Code 71965-8)
- Assessment, Performed: Total score [M3] (LOINC Code 71777-7)
- Participation: MEDICAID (SOP Code 2)
- Participation: MEDICARE (SOP Code 1)
- Participation: PRIVATE HEALTH INSURANCE (SOP Code 5)
- Patient Characteristic Birthdate: Birth date (LOINC Code 21112-8)
- Symptom: Symptoms of depression (finding) (SNOMEDCT Code 394924000)

Attributes:

- Depression or Other Behavioral Health Condition (2.16.840.1.113883.3.464.1004.1501)

Data Elements for IDSS Reporting

Organizations that submit data to NCQA must provide the following data elements in a specified file.

Table DSF-A-1/2/3: Metadata Elements for Depression Screening and Follow-Up for Adolescents and Adults

Metadata ID	Metadata Specification
MeasurementYear	Measurement year
CollectionMethod	Data collection methodology (electronic clinical data)

Table DSF-B-1/2: Data Elements for Depression Screening and Follow-Up for Adolescents and Adults (Medicaid and Commercial)

Indicator	Age	Data Element	Data Source Logic
Depression Screening	12-17	Initial population	Summed over data sources
Follow-Up on Positive Screen	18- 64	Exclusions	Report by data source
	45-64	Denominator	Summed over data sources
	65+	Numerator	Report by data source

Table DSF-B-3: Data Elements for Depression Screening and Follow-Up for Adolescents and Adults (Medicare)

Indicator	Age	Data Element	Data Source Logic
Depression Screening	18- 64	Initial population	Summed over data sources
Follow-Up on Positive Screen	45-64	Exclusions	Report by data source
	65+	Denominator	Summed over data sources
		Numerator	Report by data source

Depression Screening and Follow-Up for Adolescents and Adults (DSF)

Measure Workup

Topic Overview

Prevalence and Importance

Prevalence

Depressive disorders are common mental disorders that occur in people of all ages. Major depressive disorder (MDD) is the second leading cause of disability worldwide, affecting an estimated 120 million people (Murray et al., 2013). The lifelong prevalence is estimated to range from 10%–15% (Lepine and Briley, 2011). In the United States, 15.7% of people report that at some point in their lifetime they were told by a health care professional that they had depression (CDC, 2009).

Youth and Adolescents: A nationally representative survey by the Substance Abuse and Mental Health Services Administration (2019) found that 14.4% of adolescents (12–17 years of age) had at least one major depressive episode in 2018, and 10% had an episode with severe impairment. The same survey found that only 41.4% of people who had a major depressive episode received treatment in the past year. Prevalence of depression among adolescents and young adults in the U.S. increased between 2004 and 2018, with little change observed in mental health treatments, ultimately leading to a growing number of youths with untreated or undertreated depression (Mojtabai, 2016; SAMHSA, 2019). Lifetime prevalence of depression and dysthymia increases from 8.4% for ages 13–14, to 15% for ages 17–18 (Merikangas, 2010). Female adolescents are more likely to be diagnosed with depression than males (National Research Council and Institute of Medicine, 2009). One study found that female adolescents are also more likely to experience recurrence (57.6% vs. 32.9%) (Curry et al., 2011). Depression during adolescence has a strong correlation to chronic and recurring depression in adulthood (Garber et al., 2009).

Adults: SAMHSA (2019) found that in 2018, 7.2% of adults (17.7 million) had at least one major depressive episode in the past year, and 4.7% of adults (11.5 million) had an episode with severe impairment in the last year. A 2019 report included prevalence information by race and ethnicity and showed the prevalence of depression was highest among persons reporting two or more races (10.2%), while rates for single race groups were 7.8% among Whites, 6.2% among Hispanics, 8.5% among American Indians or Alaska Natives, 6.1% among Blacks and 4.3% among Asians (SAMHSA, 2019). Prevalence of a major depressive episode was higher among adult females than among adult males (9.0 vs. 5.3%), particularly for females of child-bearing ages (SAMHSA, 2019). The high female-to-male sex ratio in the prevalence of depression, especially during the reproductive years, is one of the most replicated findings in epidemiology (Grigoriadis and Robinson, 2007).

Late-life depression is also common. A systematic review and meta-analysis found the prevalence of major depression in older adults ranged from 4.6% to 9.3% (Luppa et al., 2012). There are misperceptions that depression symptoms are part of normal aging. Losses, social isolation and chronic medical problems that older patients experience can contribute to depression.

**Health
importance**

Depression—an overwhelming feeling of sadness and hopelessness that can last for months or years—can make people feel that life is no longer worth living. People affected by depression lose interest in activities they used to enjoy and can also be affected by physical symptoms that interfere with their ability to participate in normal daily activities. For adolescents, depression can have a major impact, disrupting daily life at home, school or in the community. Recent studies suggest that depression during adolescence is associated with worse psychosocial outcomes in adulthood, such as unemployment, low income, loneliness and low social support (Clayborne, Varin, & Colman, 2019).

Depression can complicate and exacerbate other chronic medical conditions and increased morbidity and mortality. The mortality risk for suicide in depressed patients is more than 20-fold greater than in the general population (Bostwick and Pankratz, 2000). In terms of other chronic conditions, depression is associated with a 60% increased risk of type 2 diabetes (Mezuk et al., 2008), and has been identified as a risk factor for development of cardiovascular disease (Van de Kooy et al., 2007). In addition, depression adversely affects the course, complications and management of other chronic medical illnesses (Katon, 2011). In adolescents, depression can also result in serious long-term morbidities such as generalized anxiety disorder and panic disorder, or lead to engagement in risky behaviors such as substance use (Taylor et al., 1996; Foley et al., 1996; Friedman et al., 1996; National Research Council and Institute of Medicine., 2009). Adolescent-onset depression increases the risk of attempted suicide by five-fold in comparison to non-depressed adolescents (Garber, 2009). Most adolescents who commit suicide, the third leading cause of death among 15–24 year olds, have a previous history of depression (Williams et al., 2009; National Research Council and Institute of Medicine, 2009).

Depression has long been recognized as a major contributor to disease burden (Murray et al., 1997; Üstün et al., 2004). The Global Burden of Disease study of 2010 identified depression as a leading cause of disease burden in the world. Depressive disorders were the second largest contributor to years lived with disability, an indicator of the impact of disease burden (Ferrari et al., 2013). This accounts for an estimated 10% of years lived with disability worldwide, which is 3 times the impact of diabetes, 8 times the impact of heart disease and 40 times the impact of cancer (Murray et al., 2013). These findings underscore the need for attention to depressive disorders and the implementation of effective interventions to reduce their disease burden.

**Financial
importance and
cost
effectiveness**

Depression has a large effect on both health care costs and lost productivity. Adolescents with depression have higher medical expenditures, including those related to general and mental health care, than adolescents without a depression diagnosis (O'Connor et al., 2009).

For working-age adults, a recent study showed a relationship between the severity of depression symptoms and work function and found that for every 1-point increase in the PHQ-9 score (a measure of depression severity), patients experienced an additional mean productivity loss of 1.65%. Even minor levels of depression symptoms were associated with decreases in work function (Beck et al., 2011). In a survey study, Birnbaum et al. (2011) found that major depressive disorder severity is significantly associated with increased treatment usage and costs, unemployment, disability and reduced work performance. When the results of the study were projected to the U.S. workforce, it was estimated that monthly depression-related worker productivity losses had human capital costs of nearly \$2 billion.

Older adults with depression or depressive symptoms have significantly higher health care costs even after adjusting for chronic medical conditions (Katon et al., 2003).

Supporting Evidence for Depression Care Measures

Numerous studies have demonstrated the effectiveness of screening and treatment for depression. Recent literature has focused on the care processes needed to treat and manage depression in primary care settings, where the majority of depression cases first present.

Studies have found that patient outcomes improve when there is collaboration between a primary care doctor, case manager and a mental health specialist to screen for depression, monitor symptoms, provide treatment and refer to specialty care as needed (Von Korff and Goldberg, 2001; Gilbody et al., 2006; Thota et al., 2012). The following section includes information on the evidence for depression screening, tools to monitor depressive symptoms, treatment models, gaps in care and disparities.

Screening and follow-up

The U.S. Preventive Service Task Force (USPSTF) gave a Grade B recommendation to 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 (Siu and USPSTF, 2016). USPSTF gave a Grade B recommendation to screening adolescents 12–18 years of age and a Grade I recommendation for children ≤11 years of age (Siu and USPSTF, 2016). The National Institute for Health and Clinical Excellence (NICE) guidelines and Guideline for Adolescent Depression in Primary Care (GLAD-PC) recommend universal screening of adolescents 12–18 for depression in primary care settings (NICE, 2005; Zuckerbrot et al., 2018).

Data suggest that screening tools for use in the primary care setting can accurately identify depressed individuals and treatment can improve depression outcomes (O'Connor et al., 2009; Williams et al., 2009). The use of a standardized screening tool may help reduce misdiagnosis, which one study suggests occurs in up to 60% of patients diagnosed with major depressive disorder (Mojtabai, 2013). In its review, the USPSTF identified the Patient Health Questionnaire (PHQ) in various forms, the Hospital Anxiety and Depression Scales in adults, the Geriatric Depression Scale in older adults and the Edinburgh Postnatal Depression Scale (EPDS) in postpartum and pregnant women as commonly used depression screening tools and noted that a positive screening result should lead to follow-up to assess the severity of depression, additional psychological issues or medical conditions (Siu and USPSTF, 2016).

Follow-Up for Positive Screening of Depression

The USPSTF recommends that when screening for depression in adults and adolescents, adequate systems be in place for those who screen positive. “Adequate systems” are the appropriate systems and clinical staff to ensure that patients who screen positive are appropriately diagnosed and treated with evidence-based care or referred to a setting that can provide the necessary care (Siu and USPSTF, 2016).

Follow-up to a positive depression screen can be provided on a spectrum of effective support. For adults who screen positive, low-level support can consist of a nurse who advises them on screening results and refers them to evidence-based behavioral treatments. Adults who screen positive and need higher-level support are often involved in multifaceted treatment that includes an individualized treatment plan with a nurse specialist, follow-up assessment and support for medication adherence, a visit with a therapist for cognitive behavioral

therapy (CBT) and reduced copayments for psychotherapy (Siu and USPSTF, 2016; Wells et al., 2000). The Community Preventive Services Task Force recommends use of a collaborative care model for managing depression (CPSTF, n.d.).

The USPSTF recommends that adolescents who screen positive go through a two-phase screening because positive results on initial screenings may not indicate a treatment need. Phase one is the screening test. In phase two, clinicians consider the patient's circumstantial factors, either through additional questions or a formal diagnostic interview. Patients with a positive result are referred to another set of treatment providers by the screening provider (Siu and USPSTF, 2016).

Monitoring depressive symptoms

The use of standardized tools is essential for tracking depressive symptoms and monitoring patient response to treatment. Standardized instruments are useful in identifying meaningful change in clinical outcomes over time. Guidelines recommend that providers establish and maintain regular follow-up with patients diagnosed with depression and use a standardized tool to track symptoms (Mitchel et al., 2013).

Meta-analyses of studies in adults indicate that formally monitoring patient progress improves outcomes (Lambert et al., 2003; Shimokawa et al., 2010; Knaup., 2009). For adolescents, the Guideline for Adolescent Depression in Primary Care (GLAD-PC) recommends systematic and regular tracking of treatment goals and outcomes, including assessing depressive symptoms and function, monitoring for adverse events during antidepressant treatment and reassessing diagnosis and treatment if no improvement is noted after 6–8 weeks. One study found that youths with a range of symptoms improve more quickly when clinicians receive feedback from assessments every other week instead of every 3 months (Bickman et al., 2011).

Existing “gold standard” instruments, such as the Hamilton Depression Rating Scale, can be time consuming and require a specially trained interviewer. The brief PHQ-9 questionnaire (© 2005 Pfizer) can be self-administered by the patient and has been validated for measuring depression severity and treatment response (Kroenke et al., 2001).

The PHQ-9 tool assesses the nine DSM, Fourth Edition, Text Revision (DSM-IV-TR) criterion symptoms and effects on functioning, and has been shown to be highly accurate in discriminating patients with persistent major depression, partial remission and full remission (Gilbody et al., 2007; Lowe et al., 2004; Martin et al., 2006).

Benefits of the PHQ-9 tool are numerous: it is non-proprietary and widely accepted by primary care providers and in general medical settings, it can be completed by the patient in person or over the telephone, it is translated into many languages and it is easy for the patient to complete and the provider to score. Widespread use of the PHQ-9, within a collaborative care model, would allow organizations to systematically assess their effectiveness in helping individuals to experience remission of depressive symptoms with appropriate treatment.

Interventions and treatment models to improve depression outcomes

Effective treatment options available for depressive disorders include antidepressant medications and psychotherapies. Guidelines recommend cognitive behavioral therapy and interpersonal therapy as first-line psychotherapy treatments for depression and selective serotonin reuptake inhibitors (SSRI) as first-line pharmacotherapy (APA, 2010; National Collaborating Centre for Mental Health, 2009).

Clinical guidelines also recommend a stepped-care approach to depression treatment, beginning with the least-intrusive intervention and stepping up to more intensive care if the patient does not respond to or benefit from the first intervention (National Collaborating Centre for Mental Health, 2009; Mitchell et al., 2013).

For mild and moderate depression, psychotherapy alone may be the preferred initial treatment, to be followed by the use of medication if symptoms persist (APA, 2010). This stepped-care approach includes providing assessment, support, psycho-education and monitoring of symptoms as a first step, followed by psychosocial, psychological and pharmacologic interventions, and then combined treatments for those with inadequate response.

The USPSTF found adequate evidence that treating adolescents with SSRIs, psychotherapy and combined therapy results in decrease of major depressive disorder symptoms. This conclusion was based on a systematic review that revealed several fair- or good-quality randomized controlled trials (RCT) (USPSTF, 2009).

There are challenges to delivering guideline-recommended care in non-mental health settings such as primary care, where providers may not be as knowledgeable about depression management and there are competing demands of other medical issues (Nutting et al., 2002; Rost et al., 2000), but numerous studies have shown that a collaborative care model can address these challenges and demonstrate effectiveness for managing depression in primary care settings (Costello et al., 2019; Garrison et al., 2016; Gilbody et al., 2006; Katon et al., 2008; Katon and Guico-Pabia, 2011).

A recent RCT demonstrated effectiveness of the collaborative care model for adolescent depression (Richardson et al., 2014). The model includes primary care providers using evidence-based approaches to depression care and a standardized tool for measuring severity of symptoms, response to treatment plan and remission. Key concepts of this approach are:

- Care management by a nonphysician working with the primary care physician.
- Planned collaborative care between physicians and mental health clinicians.
- Education and support of patients for self-management.
- Attention to patient preferences.

Patients are tracked and reminded of visits with their primary care physician and monitored for treatment adherence and effectiveness. A care manager is typically used to make frequent contacts with patients, often by telephone, to provide education and self-management support and to monitor for response to treatment. If the patient does not respond to a treatment, other treatment options are explored and delivered (Solberg, 2005). This model has demonstrated improvement in treatment adherence, patient quality of life and depression outcomes. Preliminary evidence suggests the collaborative care model is also effective for depression during pregnancy and postpartum (Gjerdingen et al., 2008) and in treating late-life depression (Unützer et al., 2002; Hunkeler et al., 2006).

New models of depression treatment, such as computer-based therapy, also hold promise for expanding the reach of effective treatment. A systematic review of computer-based psychological treatments for depression and a meta-analysis of 19 RCTs support the efficacy and effectiveness of computer-based psychotherapy for depression in diverse settings and in different populations (Richards and Richardson, 2012).

Health care disparities

Using data from a large national survey, Gonzalez et al. (2010) found that few Americans with recent major depression receive guideline-concordant therapies, but the lowest rates of use are found among Mexican Americans and Blacks. Minority children are one-third to one-half less likely to receive mental health care as White children, despite a similar overall prevalence of disease. Moreover, of those who do receive care, these minority groups are less likely to receive complete services and are more likely to receive treatment that is inappropriate, fragmented or inadequate (Holm-Hanse, 2006; Algeria et al., 2008; Cummings et al., 2019).

Algeria et al. (2008) discovered that among people with a diagnosed depressive disorder, 63.7% of Latinos and 58.8% of African Americans did not access any mental health treatment in the past year, compared to 40.2% of non-Latino Whites. Hispanic and uninsured children have especially high rates of unmet need for mental health services, relative to other children (Kataoka et al., 2002).

Minority individuals may present depressive symptoms differently than non-Latino Whites, which causes difficulty for providers who are trained to recognize classic symptoms and screen appropriately (Algeria et al., 2008). There are also gender disparities in receiving treatment for depression. In 2008, women who had a major depressive episode in the past year were more likely than their male counterparts to have received treatment for depression (74.2 vs. 65.0%) (SAMHSA, 2009). In terms of insurance coverage, among adults with a past-year major depressive episode in 2008, about two-thirds of those with no insurance (64.1%) and commercial insurance (69.8%) received treatment for depression in the past year, compared with higher rates for those with Medicaid (83.1%) and other health insurance (83.5%), including Medicare and VA benefits (SAMHSA, 2009).

Gaps in care

There are significant quality concerns along the continuum of depression care (Katon and Guico-Pabia, 2011): under-diagnosis (Goldman et al., 1999; Algeria et al., 2008), under-treatment (Kessler et al., 2003), inappropriate treatment (Mojtabai and Olfson, 2011), lack of follow-up and monitoring (Katon and Seelig, 2008).

Quality gaps are more pronounced among ethnic and racial minorities (Gonzalez et al., 2010) and individuals with multiple chronic conditions (Katon et al., 2004). In a large representative survey study, only one-third of those with depression reported receiving mental health services in a given year and only about half used any type of health services (Wang et al., 2005).

For adolescents, only 25% of those diagnosed with depression actually receive treatment; among those who go undetected, 20% develop recurrent or chronic depression (O'Connor et al., 2009; Garber et al., 2009).

Provider perception of diagnosis and treatment may contribute to low screening and treatment rates. In a systematic review, Williams et al. (2009) found that although a majority of studies have shown high rates of treatment for depression upon diagnosis, one survey of pediatricians found that only 25% believed it was their responsibility to treat depression in adolescents. 86% expressed concern

with prescribing medications; 90% expressed concern with counseling. Other studies in the review revealed that physicians who do screen for depression report they do not systematically use a standardized tool or the DSM-IV criteria.

This lack of appropriate diagnosis and treatment by providers may be due to a combination of factors: perceived lack of time to treat depression, lack of adequate training, lack of interest in managing their patients' depression (Seelig and Katon, 2008). However, with proper training during residency, pediatricians express increased knowledge and confidence to diagnose and manage adolescent depression (Colburn et al., 2019).

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Specific Guideline Recommendations

Recommendations for Depression Screening

Organization, Year	Population	Screening Tools Mentioned	Recommendation	Type/Grade
Adult and Pregnant Women Screening Tools				
U.S. Preventive Services Task Force (USPSTF), 2016	Adults 18 years and older	Edinburgh Postnatal Depression Scale; Patient Health Questionnaire (PHQ) 9 Item	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 Grade
USPSTF, 2009	Adults age 18 and over—When staff-assisted depression care supports are in place		Screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.	B Grade
USPSTF, 2009	Adults age 18 and over—When staff-assisted depression care supports are not in place		Recommends against routinely screening adults for depression when staff-assisted depression care supports are not in place. There may be considerations that support screening for depression in an individual patient.	C Grade
USPSTF, 2002	Adults 18 years and older		Screening adults for depression in clinical practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up.	B Grade
American Academy of Family Physicians, 2016	Adults 18 years and older	Edinburgh Postnatal Depression Scale; Patient Health Questionnaire (PHQ) 9 Item	The AAFP recommendations are based on current best evidence as summarized by the United States Preventive Services Task Force (USPSTF)	
American Academy of Pediatrics, 2010	Postpartum women	Edinburgh Postnatal Depression Scale; general 2-question screen for depression	Recommends that pediatricians screen mothers for postpartum depression at the infant's 1-, 2-, and 4-month visits.	
American College of Preventive Medicine, 2009	Adults 18 years and older		The ACPV recommendations are based on current best evidence as summarized by the United States Preventive Services Task Force (USPSTF)	
American College of Obstetricians and Gynecologists,	Women pregnant or 12 months postpartum	Edinburgh Postnatal Depression Scale; Postpartum Depression Scale; PHQ-9; BDI; BDI-II;	Recommends that clinicians screen patients at least once during the perinatal period for depression and anxiety symptoms using a standardized, validated tool. Screening must be coupled with appropriate follow-up and treatment when indicated (practices should be prepared to initiate medical therapy, refer patients to appropriate care, or	

Organization, Year	Population	Screening Tools Mentioned	Recommendation	Type/Grade
2015		Center for Epidemiologic Studies Depression Scale; Sung Self-Rating Depression Scale	both), and systems should be in place to ensure follow-up for diagnosis and treatment.	
Institute for Clinical Systems Improvement, 2016	Not specified, assumed adults 18 years and older	PHQ-2; PHQ-9; Other recognized and validated tools (BDI, Hamilton Rating Scale for Depression (HAM-D), Quick Inventory of Depressive Symptomatology Self-Report (QID-SR))	Clinicians should routinely screen all adults for depression using a standardized instrument.	Strong
Adolescent Depression Screening				
USPSTF, 2016	Adolescents 12-18 years of age	Patient Health Questionnaire for Adolescents; Beck Depression Inventory (BDI)	Screening for major depressive disorder (MDD) in adolescents aged 12–18 years. Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up.	B Grade
USPSTF, 2016	Children aged 11 years or younger		The current evidence is insufficient to assess the balance of benefits and harms of screening for MDD in children aged 11 years or younger.	I Statement
USPSTF, 2009	Adolescents 12-18 years of age		Screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up.	B Grade
USPSTF, 2009	Children 7-11 years of age		The current evidence is insufficient to assess the balance of benefits and harms of screening of children (7-11 years of age).	I Statement
American Academy of Family Physicians, 2016	Adolescents 12-18 years of age	Patient Health Questionnaire for Adolescents; Beck Depression Inventory (BDI)	The AAFP recommendations are based on current best evidence as summarized by the United States Preventive Services Task Force (USPSTF)	
American Academy of Family Physicians, 2016	Children aged 11 years or younger		The AAFP recommendations are based on current best evidence as summarized by the United States Preventive Services Task Force (USPSTF)	
American Academy of Pediatrics' Bright Futures, 2008	Children and Adolescents		Recommends annual screening in child and adolescent patients for emotional and behavioral problems.	
The American Academy of Child and Adolescent Psychiatry, 2007	Children and Adolescents		Recommends routine depression screening as part of the psychiatric assessment.	

Organization, Year	Population	Screening Tools Mentioned	Recommendation	Type/Grade
Medicaid's Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program	Children and Adolescents		Recommends screening to detect physical and mental conditions at periodic, age-appropriate intervals and, if risk is identified, follow-up with diagnostic and treatment coverage.	
Guideline for Adolescent Depression in Primary Care (GLAD-PC): Part I, 2018	Adolescents 12-18 years of age		Recommends annual screening for depression (major depressive disorder or depressive disorders) in the primary care setting using a paper or electronic self-report screening tool.	Very Strong

Grading System Key

U.S. Preventive Services Task Force

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

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Prenatal and Postpartum Depression Screening and Follow-Up

Measure Workup

Topic Overview

Depression is an overwhelming feeling of sadness and hopelessness that can last for months or years. Maternal depression is all-encompassing term for the spectrum of depressive conditions that can affect mothers-to-be and after birth. Perinatal depression refers to minor and major depression episodes during pregnancy and/or the first 12 months after childbirth (Gaynes et al., 2005).

Prevalence and Importance

Prevalence	Rates of depression for pregnant and/or postpartum women range from 12%–15%, with postpartum depression rates in some U.S. areas estimated to be as high as 20% (Ko, 2017; Gaynes et al., 2005; Bennett, 2004). Certain factors put some women at higher risk for maternal depression. Race/ethnicity, age and socioeconomic status are predictors of maternal depression (NIHCM, 2010). According to self-reported prevalence data from 27 states, younger women, women with lower educational attainment, unmarried women and women whose infants were low birthweight or required neonatal intensive care unit care were more likely to report postpartum depressive symptoms (Ko et al., 2017).
Health importance	Perinatal depression is a common condition that affects functional outcomes both for affected women and for their families. Depression can make people feel that life is no longer worth living. People affected by depression lose interest in activities they once enjoyed; they can also suffer from physical symptoms that interfere with their ability to participate in normal daily activities. Depression has significant consequences for women, their infants and families. Women with untreated depression during pregnancy are at risk of developing severe postpartum depression and suicidality, and of delivering premature or low birthweight babies (Chan, 2014). Postpartum depression hinders infant attachment and bonding and can lead to developmental disorders that last into adolescence (Field, 2010; Kingston, 2012; Dawson, 1999). During infancy, important caregiving activities such as breastfeeding, sleep, adherence to well-child visits and vaccine schedules can be compromised in depressed mothers (Field, 2010; Gregory, 2015; Minkovitz, 2005).
Financial importance and cost effectiveness	Depression has a sizeable effect on health care costs and on productivity. Estimates of the economic cost of depression range from \$36-\$83 billion, which includes direct medical costs, suicide-related mortality costs, and workplace costs (National Business Group of Health, 2011). Perinatal depression represents a significant portion of that cost. Screening for and treating postpartum depression has been shown to be cost-saving. One study found that screening for and treating postpartum depression and psychosis cost an estimated \$1,000 per woman and resulted in an estimated \$10,200 in savings per remission (Wilkinson, 2017). Perinatal depression also has an impact on the health care utilization for the child. Maternal depression is associated with increased use of acute health care services, including emergency department visits, among children under age 3 (Minkovitz, 2005).

Given clinical recommendations, perinatal depression screening is considered an essential health benefit under the Patient Prevention and Affordable Care Act (U.S. Congress, 2010). This designation removes cost-sharing of screening services for pregnant and postpartum women. In 2016, the U.S. Preventive Services Task Force (USPSTF) recommended depression screening for perinatal women; this was followed by a Centers for Medicare & Medicaid Services Informational Bulletin highlighting the critical role of Medicaid reimbursement for screening and treatment of mothers, thus providing incentives for health care providers to address this important condition in mothers. Currently, 36 states recommend, require or allow maternal depression screening to be provided as part of a well-child visit.

Supporting Evidence for Perinatal Depression Care Measures

The USPSTF, American College of Obstetricians and Gynecologists and American Psychiatric Association have guidelines for screening and treatment of depression in adolescents and adults, including perinatal women. Because perinatal depression is a risk factor for child development, the American Academy of Pediatrics also calls for the incorporation of detection and management of maternal depression in pediatric practices.

Screening and follow-up

The USPSTF gave a Grade B recommendation to 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 (Siu and USPSTF, 2016). In its review, the USPSTF identified the Patient Health Questionnaire (PHQ) in various forms and the Edinburgh Postnatal Depression Scale (EPDS) as commonly used depression screening tools for pregnant and postpartum women and noted that a positive screening result should lead to follow-up to assess the severity of depression, additional psychological issues or medical conditions (USPSTF, 2016).

The American College of Obstetricians and Gynecologists (ACOG) recommends that clinicians screen women at least once during the perinatal period (during pregnancy through 12 months postpartum) for depression and anxiety symptoms using a standardized, validated tool (ACOG, 2015). In 2018, ACOG published a Committee Opinion with updated recommendations for postpartum care and depression screening. ACOG now recommends an initial assessment with a maternal care provider, either in person or by phone, within 3 weeks after birth to address acute postpartum issues, followed by ongoing care as needed and concluding with a comprehensive well woman visit by 12 weeks after delivery. Postpartum care provided during this time period should include a full assessment of psychological well-being, including screening for postpartum depression and anxiety with a validated instrument (ACOG, 2018).

A joint report from ACOG and the American Psychiatric Association recommends that routine self-report screening instruments be used to determine if the patient requires further assessment by a clinician (Yonkers, 2009).

The American Academy of Pediatrics states that primary care pediatricians caring for infants and their families have a unique opportunity to identify maternal depression and help prevent untoward developmental and mental health outcomes for the infant and family (Earls, 2010). Screening can be integrated into the well-child care schedule and included in the prenatal visit. It is recommended that screening for postpartum depression occur at the infant's 1-, 2-, 4-, and 6-month visits. Further, intervention and referral are optimized by

	collaborative relationships with community resources and/or by co-located/ integrated primary care and mental health practices (Earls, 2010).
Follow-up for positive screening of perinatal depression	The USPSTF recommends that adequate systems be in place for screening results that indicate depression or likely depression. “Adequate systems” means appropriate systems and clinical staff to ensure that patients are screened and, if they screen positive, are appropriately diagnosed and treated with evidence-based care or referred to a setting that can provide the necessary care (USPSTF, 2016). ACOG recommends that screening be coupled with appropriate follow-up and treatment, when indicated (practices should be prepared to initiate medical therapy, refer patients to appropriate care, or both), and systems should be in place to ensure follow-up for diagnosis and treatment (ACOG, 2015).
Monitoring perinatal depressive symptoms	The use of standardized tools is essential for tracking depressive symptoms and monitoring patient response to treatment. Standardized instruments are useful in identifying meaningful change in clinical outcomes over time. Guidelines recommend that providers establish and maintain regular follow-up with patients diagnosed with depression and use a standardized tool to track symptoms (Mitchel et al., 2013). Meta-analyses of studies in adults indicate that formally monitoring patient progress improves patient outcomes (Lambert et al., 2003; Shimokawa et al., 2010; Knaup., 2009).
Interventions and treatment models to address perinatal depression	Effective interventions for addressing maternal depression include pharmacologic therapy and/or behavioral health interventions (Field, 2010; Pilowsky, 2014). ACOG and the American Psychiatric Association recommend several treatment modalities (pharmacotherapy and psychotherapy) for treating depression during pregnancy (Yonkers, 2009). For pregnant women with suicidal or psychotic symptoms, psychiatric consultation should be sought. Evidence shows that pharmacologic therapy, such as antidepressants, improves outcomes for mothers with perinatal depression. Antidepressants such as paroxetine, sertraline and nortriptyline have been found to be appropriate and safe for women who are breastfeeding (Hantsoo, 2015; Misri, 2004; Wisner, 2006). Psychotherapy offers an alternative to pharmacotherapy, particularly for women who are breastfeeding (O’Hara, 2000; Pearlstein, 2006). Psychological interventions, such as cognitive behavioral therapy and group counseling, have been shown to be effective over routine primary care (Milgrom, 2005; Dennis, 2007). Interpersonal psychotherapy has been shown to reduce depressive symptoms and improve social adjustment (O’Hara, 2000). One study of women with postpartum depression and anxiety found that pharmacotherapy (antidepressants) and combination therapy (antidepressants and cognitive behavioral therapy) were both effective in reducing depression and anxiety symptoms (Misri, 2004).
Gaps in care and health care disparities	Maternal depression is often underdiagnosed and untreated. Nearly 60% of women with depressive symptoms do not receive a clinical diagnosis, and 50% of women with a diagnosis do not receive any treatment (Ko, 2012). Surveys of OB/GYNs have found that most perceive depression screening and treatment to be effective, but they are not typically provided with appropriate resources and training (Leddy, 2011). Fewer than half of pediatricians report that they usually screen or inquire about maternal depression (Kerker et al., 2016).

The risk of untreated perinatal depression is higher among low-income ethnic minority mothers (Abrams, 2009). Even when care is provided, variation in depression care management has been documented, particularly among minority women (Yamamoto, 2015). In one study, African-American and Latina women were less likely to receive follow-up treatment or continued care (Kozhimannil, 2011).

Shifts in women's care settings across the perinatal continuum and disruptions in insurance coverage may be factors in low perinatal depression screening and management rates. Though most women obtain prenatal and postpartum care from OB/GYNs, ongoing care after the initial postpartum visit may occur at different settings, or not at all. For example, only 63% of women on Medicaid receive a postpartum visit 4–6 weeks after delivery (Scholle et al, 2003; NCQA, 2016). Women with infants most often see pediatric primary care clinicians during well-child visits: Within the first 15 months of life, 70% of children (57% of children in Medicaid) received at least six well-child visits (NCQA, 2016). Thus, well-child visits represent the most consistent contact mothers of infants tend to have with the health care system (Olin et al., 2016). In terms of insurance, approximately half of all births in the U.S. are funded by Medicaid, but over half of women with Medicaid move in and out of health care coverage in the months before and after childbirth, which could lead to depression being overlooked or untreated (Daw et al, 2017).

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Recommendations for Perinatal Depression Screening

Organization	Population	Screening Tools Mentioned	Recommendation	Time Frame	Grade
US Preventive Services Task Force, 2016	Adults 18 years and older, including pregnant and postpartum women	Edinburgh Postnatal Depression Scale; Patient Health Questionnaire 9-Item (PHQ-9)	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.	No optimal time frame for screening	B Grade
American Academy of Family Physicians, 2016	The AAFP recommendations are based on current best evidence as summarized by the United States Preventive Services Task Force.				
American Academy of Pediatrics, 2010	Postpartum women	Edinburgh Postnatal Depression Scale; general 2-question screen for depression	Recommends that pediatricians screen mothers for postpartum depression at the infant's 1-, 2-, 4-, and 6-month visits.	Screening at the infant's 1-, 2-, 4-, and 6-month visits	Expert Consensus
American College of Obstetricians and Gynecologists, 2018	Pregnant and postpartum women	Edinburgh Postnatal Depression Scale; Postpartum Depression Scale; PHQ-9; BDI; BDI-II; Center for Epidemiologic Studies Depression Scale; Zung Self-Rating Depression Scale	Recommends that clinicians screen patients at least once during the perinatal period for depression and anxiety symptoms using a standardized, validated tool. Screening must be coupled with appropriate follow-up and treatment when indicated (practices should be prepared to initiate medical therapy, refer patients to appropriate care, or both), and systems should be in place to ensure follow-up for diagnosis and treatment.	Screening at least once during the perinatal period (pregnancy through 12 months postpartum). If a patient is screened during pregnancy, an additional screening should occur during the comprehensive postpartum visit. Comprehensive postpartum visit should occur within 12 weeks (84 days) after delivery	Expert Consensus
American Psychiatric Association/American College of Obstetricians and Gynecologists 2009	Perinatal women	Edinburgh Postnatal Depression Scale; PHQ-9	Routine self-report screening instruments should be used to determine if the patient requires further assessment by a clinician.	No reference to optimal time frame for screening	Expert Consensus

U.S. Preventive Services Task Force Grade Definitions

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

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