DEVELOPMENT OF AN EVIDENCE-BASED PERINATAL DEPRESSION STRATEGY

About the Center for Child Health Policy and Advocacy

The Center for Child Health Policy and Advocacy at Texas Children’s Hospital, a collaboration between the Baylor College of Medicine Department of Pediatrics and Texas Children’s Hospital, delivers an innovative, multi-disciplinary, and solutions-oriented approach to child health in a vastly evolving health care system and marketplace. The Center for Child Health Policy and Advocacy is focused on serving as a catalyst to impact legislative and regulatory action on behalf of vulnerable children at local, state, and national levels. This policy brief is written to address the needs of mothers impacted by perinatal depression as their health impacts the well-being of their children.

Contributors

Andrea Grimbergen, BA
Anjali Raghuram, BA
Julie M. Dorland, BS, BA
Christopher C. Miller, BMus
Nancy Correa, MPH
Claire Bocchini, MD, MS
EXECUTIVE SUMMARY

Perinatal depression (PPD) is a serious depressive mood disorder that affects mothers during pregnancy and the year following childbirth. While there is no formal collection of PPD diagnoses across the U.S., it is estimated that 10-25% of women suffer from PPD. Although PPD is a treatable mental illness, it is under-diagnosed and undertreated. This is especially troubling due to the documented adverse effects of maternal depression on child health and development. Many documented barriers exist to successful PPD treatment including: stigma, lack of community and patient education, disconnect between available and preferred treatment options, lack of familial and provider support, poor healthcare accessibility in rural communities, and logistical barriers at the provider and patient levels. General barriers to PPD, compounded with the lack of Medicaid expansion and physician shortages in Texas, make mental health care hard to come by for Texan mothers. To improve health outcomes of Texas families affected by PPD, we have three urgent recommendations. Firstly, change Texas Medicaid policy to allow pediatricians and family physicians to screen mothers for PPD during well-child visits and reimburse both screening and treatment costs through Children’s Medicaid (CHIP). Secondly, ensure adequate access to PPD screening and treatment by extending Medicaid for Pregnant Women coverage to one year post-childbirth while the Healthy Texas Women (HTW) program becomes more established among Texas providers. Lastly, broaden coverage under HTW to cover more comprehensive care for perinatal mood disorders.
Definition and Prevalence

According to the American Congress of Obstetricians and Gynecologists, one in seven women suffer from perinatal depression within the first year of motherhood (1). Perinatal depression is defined as a major or minor depressive disorder with a depressive episode occurring during pregnancy or within the first year after childbirth (2). Estimated rates of depression among pregnant and postpartum women range from 10-25% depending on socioeconomic status and additional risk factors (2, 3). Approximately 12% of all women suffer from PPD in a year, with estimated prevalence rates for low-income women upwards of 25% (4, 5). However, additional studies show that low-income mothers with young children and teenage mothers report depressive symptoms elevated to 40% - 60% (6-8).

Risk Factors

Certain patient populations are more susceptible to PPD. Strong to moderate risk factors include: history of depression, low self-esteem, low socioeconomic status, stressful life events, poor marital relationship, poor social support, neuroticism, and depression or anxiety before or during pregnancy (5, 9). Moderate to weak risk factors include: single parent family, unintended pregnancy, pregnancy complications, and difficult infant temperament (9). Given the increased likelihood of PPD in at risk populations, physicians may use these risk factors to identify patients in need of increased monitoring in the perinatal period.

Perinatal Mental Disorders

The spectrum of perinatal disorder symptoms can range from the “baby blues” to postpartum depression, postpartum anxiety disorder, and postpartum psychosis. The postpartum period is a time where some changes in maternal mood or behavior are considered normal as the mother is adjusting to the birth of a new child. However, clinicians, supporting family members, and the mother herself must understand the distinction between normal postpartum emotions and mental illness requiring treatment. Baby blues, broadly characterized as symptoms of crying, worrying, sadness, anxiety, and mood swings, affects anywhere from 50-80% of new mothers and occurs during the first few days after delivery (10). These symptoms are generally gone within one to two weeks and do not require any treatment (2). Baby blues is considered a normal response to the birth of a child and is not considered a mood disorder.
However, postpartum depression is a serious mood disorder that requires clinical evaluation and treatment to resolve. It may begin as symptoms similar to baby blues that continue or worsen with time (2). Women with PPD may experience feelings of extreme sadness, anxiety, and exhaustion that make it difficult to take care of themselves and others (10). This inability to perform basic daily care tasks is perhaps the most concerning within the context of a newborn child.

While postpartum anxiety disorders are not as well researched or publicized (11,12), studies have reported that postpartum anxiety disorders may affect up to 20% of women, and tend to co-occur with depression (comorbidity rates between 10% - 50%) (13,14). Obsessive-compulsive disorder may also present in the postpartum period with prevalence between 10%-30% and depression comorbidity rate of 70% (2, 15).

On rare occasion, new mothers may suffer from postpartum psychosis (PP), which is the most severe and serious perinatal mental illness (16). PP affects less than 1% of women and develops in the days after childbirth. The mother can develop delusions, mood swings, confused thinking, and disorganized behavior which may result in harm to her infant (16).

**Consequences for Families**

Depression is an issue that affects the entire family. Beyond significant maternal distress, untreated PPD is associated with poor child health outcomes. PPD is correlated with significant complications at birth, including pre-term birth, low birth weight, and increased length of stay in the neonatal intensive care unit (19). PPD also compromises the mother-child bond, which adversely affects the child’s social, motor, and cognitive development. Children of mothers with PPD are more likely to have insecure attachment to their mothers, poor cognitive performance, and depression themselves (17-18).

Treating a mother’s depression is associated with improvement of maternal depressive symptoms and other disorders in her child (20). However, failure to treat underlying maternal depression may cause the infant’s developmental issues to become less responsive to treatment over time (20). It is paramount that maternal depression be addressed in a timely and proactive manner to ensure the healthy development of a child in his or her early years.
The American Congress of Obstetricians and Gynecologists (ACOG) recommends that clinicians use a standardized, validated tool to screen for mood and anxiety disorders at least once during the perinatal period with systems in place for treatment initiation and referral (21). Screening alone is not enough to improve health outcomes, and each screening provider must be able to either initiate treatment or refer patients to behavioral health specialists. ACOG recommends close monitoring of patients with current, antenatal mood disorders, history of perinatal depression, or additional risk factors for PPD (21).

Screening

Many standardized and validated screening tools exist to detect PPD (21). The Edinburgh Postnatal Depression Scale (EPDS) comes recommended by both ACOG and the American Academy of Pediatrics (22). EPDS is a 10-item, self-reported questionnaire that takes under five minutes to complete, requires low reading proficiency, and has been translated into 58 languages (2, 21, 23). Diagnosis of PPD must also be confirmed by comprehensive clinical interview. Implementation of a screening tool for PPD is up to the discretion of each provider. Individual providers decide when and how often screening is done, which tool is used, as well as which staff members are responsible for screening and follow-up. The high frequency of doctor’s visits during the perinatal period provides a great opportunity to intervene. Screening can be performed at obstetrics visits during pregnancy and postpartum, as well as at pediatrics visits after birth. However, screening practices tend to be inconsistent (24).

Treatment

Well-established treatment options for perinatal depression include psychosocial support, psychotherapy, and pharmaceutical treatment (25). Treatment options vary according to symptom severity, as well as the mother’s ability to take care of her child (22). For mild symptoms, PPD can be managed in a primary care setting through
informal psychosocial interventions, like support groups and nondirective counseling by mental health professionals (22,26). For moderate symptoms or mild symptoms that do not respond to informal psychosocial intervention, formal psychotherapy is recommended (22). Evidence-based psychotherapies include interpersonal psychotherapy and cognitive behavioral therapy (6, 22). For PPD symptoms that do not respond to psychotherapy or are severe enough to require immediate attention, antidepressant medications, such as selective serotonin reuptake inhibitors (SSRIs) are recommended (22). Clinicians and patients must come together to decide which treatment options or combination of options work best. Most SSRIs pass through breast milk at a dose considered safe for healthy infants (27). However, clinicians treating pregnant women with PPD must weigh the fetal risks of antidepressant use with the risks of untreated depression. Severe PPD symptoms with active suicidal intent or psychosis must be treated in a hospital setting (26,28).

**PPD IN TEXAS**

An estimated 69,000 - 79,000 women and families in Texas struggled with perinatal depression in 2013 (2). In Harris County alone, an estimated 10,000 mothers experience PPD every year out of 70,000 annual births. However, a comprehensive report on PPD from the 84th Texas Legislative Session highlighted that PPD is significantly underreported among Medicaid patients (36). In 2014, only 1.7% of women enrolled in Medicaid who gave birth in Texas were diagnosed with PPD (3,533 of 212,809). The Texas Pregnancy Risk Assessment Monitoring System (PRAMS) reported that the rate was actually 16.9% of Texas women who gave birth that year (36). This data suggests that an estimated 32,347 of new mothers with Medicaid were never even diagnosed with PPD, let alone treated in 2014.

During 2008 to 2012 in Texas and Harris County, the second leading cause of inpatient hospitalization for childbearing women (ages 15-45) was mental illness – only topped by pregnancy and childbirth (2). Of the top five hospitals in Harris County where patients were discharged with perinatal mental disorders, only one hospital has a psychiatric unit and follow-up services. Of the 19 agencies in Harris County that provide PPD counseling, wait times can reach upwards of two months for an appointment (35).
Currently, Texas has a severe physician shortage, with about 43,000 physicians actively practicing for a population of about 23 million (29). This puts Texas at 45th in the nation for the number of physicians per population. As such, mental health providers tend to have long wait times for appointments or no new patient availabilities. While there are 39 Local Mental Health Authorities in Texas, women still report difficulty finding available mental health providers (2).

**Insurance Coverage in Texas**

Insurance status plays a big role in how patients interact with the health care system. Pregnancy is a unique time where expecting women can have as many as 16 recommended prenatal visits, with additional visits in the cases of older mothers, pre-existing conditions, pregnancy complications, multiple babies, or history of pre-term labor (30). Once the cost of childbirth, postnatal maternal care, and newborn care is added, having a child can be exorbitantly expensive. As a commercially insured patient in the U.S., the average total price for pregnancy and newborn care in 2010 was $32,093 for vaginal delivery and $51,125 for Cesarean, with insurance payouts of $18,329 and $27,866 respectively (31). As a Medicaid patient, the average total price was $29,800 for vaginal delivery and $50,373 for Cesarean, with Medicaid payouts of $9,131 and $13,590 respectively (31).

With all of the stress that comes with preparing to have a child, concerns over cost can add even more strain. Women suffering from postpartum depression may be reluctant to seek care, even if screened positive, to avoid additional expense. From 2013 - 2015, Texas and Mississippi tied for the highest percentage of women (22%) who avoided seeing a doctor for the past year due to cost (65). For the average women in Texas, her health coverage can come through four main pathways: private insurance, Medicaid for Pregnant Women (MPW) followed by the Healthy Texas Women (HTW) program, general Medicaid coverage, or Texas DSHS County Indigent Health Care Programs.

Women with private insurance are arguably in the best position to receive PPD care. This group of women either has an income level high enough to purchase marketplace insurance or employer-based coverage through self or family, suggesting some degree of financial stability. They can choose a plan that gives them the broadest coverage and will likely have some options in choosing providers. Their coverage is relatively stable, which facilitates continuity of care and trusting relationships with providers. However, they still face barriers to PPD care beyond those related to insurance status.
Women with Medicaid for Pregnant Women (MPW), followed by auto-enrollment into the new Healthy Texas Women (HTW) program, are in a more restricted position. These women fall into an income bracket too high to qualify for traditional Medicaid, but too low to feasibly purchase private insurance. Instead, they qualify for a version of Medicaid that limits their coverage to pregnancy-related health issues only for the duration of their pregnancy and the 60 days following birth (32). After this 60-day period, they are automatically enrolled into HTW, a new program covering women’s health and family planning services (33). While these women do receive coverage, this form of coverage is not ideal. MPW may only cover maternal issues if pertinent to her unborn child, limiting necessary maternal healthcare. Medicaid patients have difficulty finding providers who will accept their insurance due to inadequate Medicaid payouts and heavy administrative burdens for physicians (34). Once MPW coverage ends, women may be forced to find new providers who will accept HTW. HTW is a new program, and many Texas providers are not enrolled or even familiar with the program (35). Women unable to find PPD care from their providers may need to seek care from often overburdened Local Mental Health Authorities (36).

Women who qualify for Medicaid coverage before pregnancy paradoxically may face fewer structural barriers than those in MPW even though they fall into a lower income bracket. These women receive full Medicaid benefits and do not have to switch providers in the postpartum period since their Medicaid coverage is continuous. However, they still face challenges in finding providers who will accept Medicaid patients. From 2000 to 2014, the percent of Texas physicians who accepted new Medicaid patients fell from 67% to 37% (34). In 2014, only 23% of obstetrics-gynecologists and 26% of non-surgical specialists, including psychiatrists, accepted new Medicaid patients (34). However, in 2014, over half (54%) of Texas births were covered by Medicaid (64). Similar to those with MPW, women who use Medicaid may need to seek PPD care from Local Mental Health Authorities (36).

Women who have to find affordable health care through Texas DSHS County Indigent Health Care Programs are in the most precarious position to receive PPD care. Uninsured women are forced to navigate the healthcare system on their own. Texas ranks number one in the rate of uninsured,
with one in five women of reproductive age lacking health insurance (38). In addition, Texas has some of the most stringent Medicaid eligibility requirements in the U.S., leaving an estimated 684,000 patients ineligible for both Medicaid and premium subsidies in the health care exchange (37). In the best-case scenario, these women are able to receive sliding-scale care through county healthcare institutions and Federally Qualified Health Centers. However, these providers tend to be extremely overburdened, resulting in long wait times between appointments or no availabilities for new patients. For women suffering from PPD, many uninsured mothers may avoid seeking mental health care seen as auxiliary to other pressing maternal or newborn health concerns. As a result, their PPD could go untreated, and psychiatric medical care may be limited to emergency services only.

**Harris County Community Resource Assessment**

A recent assessment of Harris County PPD services by Texas Children’s Hospital and Baylor College of Medicine identified 24 agencies that offer PPD services (35). Individual providers were excluded from the assessment. Fifteen of these agencies accept Medicaid and only five accept HTW. Many of these agencies were unaware of the HTW program at the time of assessment in fall 2016. Of the 24 agencies that offer PPD services, wait times can be as long as 2 months to receive care. Just five agencies provide immediate services. Additional data from this needs assessment can be found in Table 1 below:

<table>
<thead>
<tr>
<th>Agencies serving Harris County mothers</th>
<th>Insurance accepted</th>
<th>Wait times</th>
<th>Languages available</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 agencies - 54 locations</td>
<td>Medicaid 15 (63%)</td>
<td>5 offer immediate services</td>
<td>6 English only</td>
</tr>
<tr>
<td></td>
<td>HTW 5 (21%)</td>
<td>10 within 2 weeks</td>
<td>16 English &amp; Spanish</td>
</tr>
<tr>
<td></td>
<td>Private 20 (83%)</td>
<td>2 within 1 month</td>
<td>2 offer many other languages</td>
</tr>
<tr>
<td></td>
<td>Sliding scale (71%)</td>
<td>3 within 2 months</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4 were dependent on availabilities</td>
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Table 1. Results from Texas Children’s Hospital and Baylor College of Medicine’s 2016 community resource assessment of PPD services in Harris County (35).

In addition to lack of provider enrollment in Health Texas Women, HTW only covers cases of uncomplicated PPD – women with mild depressive symptoms who do not have a previous history of mood disorders and do not have any comorbid perinatal mood disorders (70). However, the majority of PPD-affected women (64%) experience either more severe depressive symptoms, have a past history of mood disorders, or have comorbid mood disorders in parallel with their PPD (71). HTW does not provide coverage of PPD care for these women who need more intensive treatment (70).

In 2014, 54% of the 399,482 births in Texas were covered by Medicaid with approximately 13%-23% of those new mothers experiencing PPD (72-75). 64% of those PPD-affected mothers experienced more severe depression or had comorbid mood disorders (71). This suggests that there are between 17,948 - 31,754 women enrolled in Healthy Texas Women that have PPD and need more comprehensive PPD services than HTW will provide.
Of women who screen positive for PPD, less than 40% are able to attend subsequent treatment visits and less than 6% complete the entire treatment course (39,40). To understand why PPD is consistently under-diagnosed and undertreated (41), barriers to care must be explored. Understanding what prevents women from seeking and receiving effective care can inform treatment and ultimately improve health outcomes for new or expecting mothers. Barriers to care can either spring from the mother herself or from the healthcare system and community surrounding her.

**Stigmas Breed Silence**

The label of mental illness carries a heavy burden. Across all societies, stereotypes surrounding mental illness can lead to prejudice and discrimination (42-44). New or expecting mothers are burdened by additional expectations surrounding motherhood. Mothers suffering from PPD feel ashamed or guilty for their perceived parental failure (17,45-47). They also fear that their depression will be seen as an inability to support their child, resulting in a fear of custody loss (45). This fear of custody loss is exacerbated in lower-income populations where patients do not have the same financial resources or power to advocate for themselves within the healthcare system (48). Mothers in marginalized social positions are especially vulnerable to stigma since they lie at the intersection of mental illness and low socioeconomic status. For all mothers, previous negative experiences with mental healthcare can discourage them from future disclosure and treatment (45).

**Lack of Patient Education**

Many women with PPD may not realize that they are suffering from a treatable mental illness. They may not know of PPD as a medical condition, the associated symptoms, or available treatment options. Having a newborn is exhausting, and experiencing temporary baby blues - worry, sadness, and tiredness - after childbirth is common (49). Many women find it difficult to determine if their levels of sadness and anxiety are “normal” or could be considered depression for which they can seek treatment (50). Receiving more information through healthcare providers or community-based support programs increases help-seeking behaviors (51). Even when women
do believe that they are suffering from PPD, there is confusion about how to access treatment. In a study of 509 women with PPD, 26.2% said that a perceived barrier to treatment was that they “would not know where to find such services” (52). While most women suffering from PPD agree with their clinical diagnosis, some mothers identify their depression as a normal response to external forces beyond their control (48). This is especially true for women facing poverty, past or current domestic abuse, or behavioral problems in a child (48). Belief that mental health providers will focus too heavily on internal causes of depression and dismiss stressful environmental factors may dissuade these mothers from seeking continued PPD treatment.

Mismatch of Preferred and Available Treatment Options

Disconnect between preferred versus available treatment options may discourage mothers from PPD treatment. Between the two most common and well-established depression treatments, psychotherapy and medication, different providers may allocate more staff or resources to one treatment over the other. Many pregnant or breastfeeding mothers are uncomfortable taking anti-depressants due to the potential impact on their child. (52,53) Additional side effects, potential dependency, or stigma around taking antidepressants may also contribute to this reluctance (52). In addition, minority patients tend to prefer psychotherapy to medication when treating their depression (54). A recent study performed in New Jersey demonstrated that of depressed mothers, white women (44%) were almost twice as likely to continue prescribed anti-depressants as black (23%) or Latina (27%) women (55). This study also demonstrated that white women (28%) were significantly more likely to complete PPD treatment than black (24%) or Latina (21%) women (55). Given that, as of 2011, 71% of Texas Medicaid clients identify as a minority, optimizing PPD resources to established patient preferences may improve health outcomes (62). With demonstrated treatment preferences for psychotherapy, providers who do not allocate enough staff towards psychotherapy may not meet the needs of their patient population.
Healthcare Accessibility Issues in Rural Communities

Patients living in rural areas must travel greater distances to receive medical care, and when they do, these facilities tend to be small and limited in services provided (56). Shorter distance to safety-net providers is associated with fewer unmet needs, less delayed care, and greater use of providers outside of the emergency room (57). In a study of perinatal women who were offered referrals for mental health treatment, 19% cited geographic mismatch or inconvenient location as a barrier to care (58).

Regardless of treatment choice between psychotherapy or medication, both options require intensive follow-up in the form of regular therapy sessions or medication titration and monitoring. Regular appointments to an inconvenient location may discourage patients from initiating or completing treatment. Out of the 254 counties in Texas, 35 Texas counties have no physicians (63). 80 Texas counties have five or fewer physicians. 147 Texas counties have no obstetrician/gynecologist. 185 Texas counties have no psychiatrist. Texas physicians disproportionately practice in the five most populous counties (Harris, Dallas, Tarrant, Bexar, and Travis) with 57% (26,620) of the workforce treating 44% of the Texas population (63).

Lack of Familial or Provider Support

Women with PPD are less likely to seek treatment if they feel a lack of support from either friends and family or healthcare providers (17, 45, 50-52). Normalization of symptoms or lack of understanding about PPD from family and friends can make a mother feel like her concerns are not valid enough to seek or continue care (17). However, women with supportive family and friends who express concern and encourage them to seek care are more likely to address their PPD (17). Healthcare provider attitude can dramatically influence treatment initiation and completion. Providers who are perceived as indifferent, inattentive, or
unfeeling can discourage women from treatment (17, 51). Providers who legitimize PPD symptoms and reach out to patients regarding missed appointments or follow-up questions are more likely to facilitate better treatment adherence (17).

**Logistical Barriers at Provider Level**

While ACOG provides recommendations for PPD screening, there are no specific guidelines regarding PPD assessment. When and how often to screen, which tools to use, and who provides the screening is up to each provider. A 2010 study exploring screening practices within the a large local network of primary care pediatricians found that only 43% screened for PPD and the majority of those providers did not use validated screening tools (56%), citing lack of time (58%), inadequate training (54%), and inadequate resources to screen (44%) as barriers (59). Another 2010 study exploring screening practices amongst obstetrician-gynecologists across Texas found that while 85% screened for PPD, the majority of those providers did not use validated screening tools (72%), citing inadequate training (56%) and inadequate resources to screen (46%) (60).

**Logistical Barriers at Patient Level**

Navigating the healthcare system is not an easy task, and between trying to balance newborn care and maternal mental healthcare, mothers may feel overwhelmed. Primary care physicians likely to first identify and diagnose PPD may not feel equipped to provide quality mental healthcare and will likely refer patients to behavioral health specialists. However, long wait times for appointments or lack of referral follow-up discourage initiation and completion of care (17). Ambiguity regarding which specialty is responsible for coordinating PPD care may exacerbate issues with treatment initiation. These issues are intensified in immigrant or refugee populations. Studies exploring experiences of immigrant and refugee women with PPD stated that knowledge of the healthcare system was necessary to seek care and that this process was complex and time-consuming, and often discouraged women from seeking care (51,61). Once behavioral health appointments are scheduled, mothers must set-up childcare and transportation. While these may be minor inconveniences for some mothers, patients with limited financial resources may find these barriers to be too large for treatment that may be seen as auxiliary to basic needs.
In 2015 – 2016, Texas recognized the importance of increasing the awareness, education, and continuity of care for women with PPD. Initiatives included the designation of May as PPD Awareness Month in tandem with a PPD outreach campaign in May 2016, as well as the HTW auto-enrollment process to close the coverage gap for vulnerable Texas women using MPW. However, there are still many barriers to identifying and treating Texas mothers with PPD.

To optimize screening, treatment, and health outcomes of Texas families affected by PPD, we recommend the following:

Policy Recommendations

1. **Change Texas Medicaid policy to allow pediatricians and family physicians to screen mothers for PPD during well-child visits and reimburse both screening and treatment costs through Children's Medicaid (CHIP).**

   In May 2016, the Centers for Medicare & Medicaid Services (CMS) issued guidelines on maternal depression screening and treatment, stating “State Medicaid agencies may cover maternal depression as part of a well-child visit. (69)” The document also mentioned that reimbursement mechanisms are left up to the discretion of the state. To make PPD screening and treatment more accessible to Texas mothers on Medicaid, we suggest allowing pediatricians and family physicians to screen for PPD at well-child visits. The American Academy of Pediatrics recommends screening for PPD at well-child visits, and the majority of pediatricians feel that PPD screening is within the scope of their practice (66,67). Given that pediatricians will see the family five to six times within the first year for newborn care, they are in the best position to monitor a mother’s mental health (68). Texas Children’s Health Plan (Harris County Medicaid MCO) already reimburses providers for maternal depression screening conducted at a well-child visit. The fee per Medicaid is just $3.65 per screening (70,77). 11 states allow maternal depression screening at pediatric or family medicine visits through the child’s Medicaid or CHIP coverage (76).

   Pediatricians and family physicians counsel women who screen positive for depression on what PPD is and what community resources exist that can help women with PPD. Women who screen positive are also referred to appropriate mental health providers. If the mother is uninsured, currently she can be referred to providers located
at Federally Qualified Health Centers or within the Texas DSHS County Indigent Health Care Programs.

Increased screening would ideally come with expanded infrastructure to handle more patients seeking PPD treatment. Optimally, maternal mental health could be covered by the child’s Medicaid/CHIP coverage if the mother is otherwise not covered for treatment. Healthy women are better equipped to take care of their children; untreated PPD is associated with poor health outcomes for the child. Reimbursing both PPD screening and treatment through the child’s Medicaid or CHIP provides a safety net for families regardless of maternal insurance status.

Even without expanded infrastructure for PPD treatment at this time, increased screening will lead to improved diagnosis and treatment opportunities for low-income women with PPD. This screening could also be used as a critical surveillance tool to support future infrastructure improvement.

2. **Extend Medicaid for Pregnant Women coverage to one year post-childbirth while Healthy Texas Women becomes more established among Texas providers.**

Given demonstrated underreporting of PPD in Texas mothers using Medicaid in 2014 (1.7% from Medicaid versus 16.9% from PRAMS) (36), it is critical that Texas supports PPD screening and treatment surrounding childbirth as much as possible. This can be accomplished through two routes: extending coverage under MPW and increasing the effectiveness of HTW. By definition, PPD can occur during pregnancy and throughout the year after childbirth. However, the recent DSHS report on PPD suggested that the previous loss of insurance coverage 60 days after childbirth could have contributed to under-diagnosis of PPD in Medicaid patients (36). While the administrative dust settles on HTW, continuity of care would be best facilitated by an extension of MPW coverage for the year following childbirth. This gives HTW time to establish strong relationships with Texas providers through greater provider education about HTW, HTW incentives for providers to enroll in HTW, and development of clear HTW guidelines for PPD screening and treatment.
3. Broaden coverage within Healthy Texas Women to provide comprehensive care for perinatal mood disorders.

The majority (64%) of women affected by PPD experience moderate to severe symptoms, have a previous history of mood disorders, or experience comorbid perinatal mood disorders (71). Currently, only uncomplicated, mild postpartum depression is covered by the HTW program. We estimate that these narrow coverage restrictions leave 17,948 - 31,754 women enrolled in Healthy Texas Women without the care they need. We recommend expanding HTW coverage of perinatal mood disorders to better help women who may need more intensive treatment.

Additional Recommendations

1. **Standardize PPD screening guidelines.**

   The PPD screening process should be standardized to prevent ambiguity regarding which provider is responsible for screening, which screening tool should be used, and how often screening should occur. Clarity saves women and families from falling through the cracks. Of the 11 states that allow Children's Medicaid to cover maternal screening, six states require use of a validated depression screening tool and three states mandate the use of specific, validated tools (Edinburgh Postnatal Depression Scale, Patient Health Questionnaire-2, Patient Health Questionnaire-9) (76).

2. **Increase PPD education resources for patients.**

   As discussed earlier, many mothers struggle to distinguish between the baby blues and clinical depression. To educate and empower our Texas mothers, we recommend mandating pre- and post-natal discussions about PPD between providers and patients, social media campaigns to increase PPD awareness, and community-based family education classes on PPD symptoms. Illinois and Minnesota have specific state requirements for the distribution and availability of educational PPD resources to patients and families (36).

3. **Personalize PPD treatment options available in accordance to expected patient population.**

   As of 2011, 71% of Texas Medicaid clients identify as a minority and studies have demonstrated that minority patients prefer psychotherapy to pharmaceutical treatment when addressing mental illness (54,62). Texas providers for PPD-affected mothers
using Medicaid would likely improve outcomes most if they matched their available services to these demonstrated patient preferences. Fewer resources may be wasted on patient preference mismatch, and health outcomes may improve. We recommend increasing the number of mental health professionals involved in psychotherapy or non-medication treatment plans (clinical psychologists, medical social workers, psychiatric nurses, licensed counselors, etc.).

4. Centralize primary care and mental health services to one provider location.

For low-income patients, finding and organizing reliable transportation to doctor appointments is often challenging. Accessibility challenges may be amplified within a patient population also burdened by a need for newborn childcare. If primary care doctors and specialists are scattered across different clinics, patients may be discouraged from seeking anything beyond treatment perceived as absolutely necessary. We recommend providing incentives for primary care or obstetric-gynecology clinics to staff behavioral health professionals within their practice. In addition, we suggest providing incentives to increase HTW enrollment of Federally Qualified Health Centers.

5. Increase remote mental health care programs.

For women in Health Professional Shortage Areas, finding any form of medical care can be difficult. Without the sufficient number of providers, new mothers do not have the opportunity to be screened or treated for PPD. We recommend increasing funding for telemedicine resources to help women in the 149/254 medically underserved counties in Texas as of 2015 (63).

6. Increase PPD education resources for physicians.

Providers need greater tools to support Texas mothers in need. We recommend GME programs for providers specifically developed for providing high quality care to women with PPD. We suggest that regular PPD GME should be required for all obstetric and primary care physicians to ensure that all frontline providers are well-equipped to address one of the most common complications of pregnancy. Iowa has a PPD pocket guide for health care professionals that goes over information regarding treatment options, coding, and billing (36). The Minnesota Department of Health provides clinical
guidelines for universal PPD screening at well-child visits that address: an outline of ideal work flow, suggested PPD interventions, how to document maternal screening at well-child visits, advantages and disadvantages of which well-child visit to choose for PPD screening, how to choose a validated screening tool, state-specific billing information, and how a provider should respond to the range of screening results (76).

7. **Provide in-home PPD follow-up.**

High quality care is personalized to meet the needs of each patient. For new mothers unable to leave home but in need of treatment, in-home follow-up may be a good solution. We recommend allocating trained mental health professionals to do home visit programs that provide support and case management. Kentucky has developed its own home visit program (Health Access Nurturing Development Series) dedicated to promoting healthy environments for mothers and newborns (36).
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