

Depression diagnoses and treatment during pregnancy among women enrolled in Medicaid

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Abstract

Background: Prenatal depression is common and may be associated with adverse prenatal and postpartum outcomes when untreated. However, treatment rates among pregnant women remain relatively low. As Medicaid is the largest public insurer during pregnancy in the United States, it is important to understand whether Medicaid beneficiaries receive appropriate depression treatment during pregnancy and the characteristics of women engaging in treatment.

Methods: The national 2021 Transformed Medicaid Statistical Information System Analytic Files identified 200,368 pregnant women with a confirmed depression diagnosis (13% of all pregnancies within Medicaid). Women were categorized into four groups: no treatment, antidepressant medication-only, psychotherapy-only, and both medication and psychotherapy. Pearson chi-square tests evaluated differences in characteristics of women across treatment groups. Because this study relies on administrative claims data, treatment may be underestimated due to incomplete capture of behavioral health services, including non-billed care, integrated care models, and services not reimbursed through Medicaid.

Results: Ninety-seven percent of women diagnosed with depression during pregnancy did not receive documented depression treatment. White, older women enrolled in Medicaid managed care were apparently more likely to engage in any treatment. Women with a co-occurring mental illness in addition to depression or gestational hypertension were more likely to receive documented treatment. Comparisons within those receiving treatment demonstrate that women prescribed medication-only according to documentation were more likely to be younger, Black or Hispanic, live in rural areas, and have gestational hypertension. Most women receiving documented treatment had high levels of co-occurring mental illness.

Conclusions: Depression during pregnancy is apparently overwhelmingly untreated within the Medicaid population. Despite established clinical recommendations supporting effective behavioral and pharmacological interventions within pregnant populations, most women do not receive any documented treatment under their Medicaid insurance plans. Enhancing screening and psychotherapeutic treatment availability along with providing comprehensive information concerning maternal and fetal safety may contribute to improved health outcomes for pregnant women and their infants.

Keywords: Prenatal depression, Medicaid, Maternal health, Mental health

Introduction

Prenatal depression affects an estimated 10–20% of pregnant women in the United States [1,2], yet only a minority receive treatment [3,4]. Clinical guidelines recommend psychotherapy or antidepressants such as selective serotonin reuptake inhibitors (SSRIs) or serotonin–norepinephrine reuptake inhibitors (SNRIs) for treating prenatal depression [5–7].

Both psychotherapy and medications can be effective options, with consistent evidence showing significant reductions in depressive and anxiety symptoms compared with standard prenatal care

[8–13]. While new data may be emerging, the American College of Obstetricians and Gynecologists recommends individualized, risk-benefit-based decision-making regarding psychotherapy and pharmacologic treatment during pregnancy [5]. Indeed, among women with severe or recurrent depression, discontinuation among those receiving depression treatment before pregnancy is associated with a significantly higher risk of relapse [14]. Untreated prenatal depression also poses a significant economic burden on the United States in excess costs due to increased health care utilization and reduced economic productivity among affected women [15,16]. Despite clinical guidelines, treatment rates remain low [3,4], particularly among pregnant women insured through Medicaid [17].

Medicaid is the largest public payer of maternal health care in the United States, yet no national studies have examined depression diagnosis and treatment within this population. Although Medicaid expansion is associated with a decline in prenatal depression [18], existing state-level analyses, including studies in California, Michigan, and Minnesota, indicate low rates of depression identification and treatment among Medicaid beneficiaries, though each focused on localized populations and specific programmatic initiatives [3,19,20].

Low treatment rates are concerning because prenatal depression is associated with adverse maternal and infant outcomes. Previous studies show increased risk of preterm birth, lower Apgar scores and reduced breastfeeding initiation among women with untreated depression [21–23]. Treatment decisions must balance the potential risks of medication exposure with the risks of untreated illness [22,24–26]. Safety concerns, especially fears of fetal or breastfeeding-related effects, remain a leading reason for discontinuing medication during pregnancy and postpartum [25,27]. This is complicated by mixed research results. While some studies suggest associations between SSRIs and adverse neonatal outcomes such as persistent pulmonary hypertension, metabolic issues, and low birth weight [23, 28], others report no increased risk of congenital anomalies or long-term neurodevelopmental harm [25,26].

Given that Medicaid covers nearly half of all U.S. births [29], understanding national rates of depression diagnosis and treatment in this population is essential for ensuring accessible and evidence-based prenatal care. The current study addresses this gap by examining depression diagnoses and treatment modalities among pregnant Medicaid beneficiaries across the United States.

Although perinatal depression, including both prenatal and postpartum depression, represents an important public health concern, this study focuses specifically on depression during pregnancy. The prenatal period represents a distinct clinical window in which screening, diagnosis, and treatment decisions occur while balancing maternal mental health needs with considerations related to fetal health and pregnancy outcomes. Focusing on the prenatal period allows for a clearly defined observation window within Medicaid claims data, whereas assessment of postpartum depression requires additional follow-up and may be influenced by postpartum care engagement, transitions in insurance coverage, and changes in treatment-seeking patterns after delivery.

Methods

Data sources and study population

This study used Medicaid claims from the Transformed Medicaid Statistical Information System Analytic Files (T-MSIS Analytic Files),

including inpatient, outpatient, professional services, and pharmacy claims. The study population includes women with a delivery in 2021 who had a documented diagnosis of depression either in the six months before pregnancy or during pregnancy. Depression was verified by at least one inpatient claim, or two or more outpatient claims with a primary diagnosis of depression. Continuous Medicaid enrollment was required throughout pregnancy.

To examine differences in depression treatment and delivery outcomes, women were assigned to one of four mutually exclusive groups:

- **No treatment:** No claims for antidepressant medication or behavioral therapy during pregnancy despite a depression diagnosis.
- **Medication-only:** At least one filled antidepressant prescription during pregnancy and no behavioral therapy. Antidepressants were identified through National Drug Codes and included selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors, tricyclic antidepressants, monoamine oxidase inhibitors, and atypical antidepressants.
- **Psychotherapy-only:** At least one behavioral health care visit during pregnancy and no antidepressant medication. Psychotherapies included individual counseling, group interventions, cognitive behavioral therapy (CBT), family psychotherapy, and care management support. Relevant CPT codes included: Psychotherapy (30–60 minutes): 90832, 90834, 90837; Crisis psychotherapy: 90839, 90840; Family/group therapy: 90846, 90847, 90853; Health behavior assessment/intervention: 96164, 96165.
- **Both medication and psychotherapy:** Receipt of both antidepressant medication and psychotherapy during pregnancy.

Administrative claims data are collected for billing purposes and may not capture all clinical services. Behavioral health services delivered in integrated care settings, grant-funded programs, or not billed to Medicaid may be underrepresented. As a result, treatment utilization may be underestimated.

This study was reviewed and determined exempt by the Westat Institutional Review Board (IRB) under 45 CFR 46 due to use of de-identified administrative data. Requirements for informed consent were waived.

Maternal characteristics

Maternal demographic variables included age at delivery, race/ethnicity (White non-Hispanic, Black non-Hispanic, Other non-Hispanic, Hispanic, and Unknown), urban–rural residence, and whether the individual was enrolled in Medicaid fee-for-service (FFS) or Medicaid managed care. Also assessed were co-occurring conditions including any non-depressive psychiatric conditions, gestational hypertension, and gestational diabetes.

Statistical analysis

Pearson chi-square tests were conducted to compare the characteristics between women who received any treatment and those who did not. Additional Pearson chi-square tests were conducted to examine differences in characteristics across treatment modalities, including medication-only, psychotherapy-only, and combined medication and psychotherapy.

Results

In 2021, there were 1,502,360 live births in Medicaid. Of these 13.34% (n = 200,368) of Medicaid-covered births had a documented diagnosis of depression. The remaining analyses include only the sample of 200,368 women.

Among pregnant women with a depression diagnosis, 97% (n = 194,365) did not receive any documented treatment for depression. **Table 1** presents demographic characteristics comparing women who did and did not receive treatment. The documented treatment

group was more likely to be 25+ years old (84% treatment group versus 65% of the non-treatment group), White, non-Hispanic (62% versus 50%), and enrolled in Medicaid managed care (93% versus 89%). They were also more likely to have a co-occurring mental health disorder (in addition to depression) (98% versus 89%), and gestational hypertension (22% versus 17%).

Table 2 provides more information on the 6,003 women who had documented depression treatment. Among those receiving documented treatment, medication-only (n = 3,569, 59.5%) was the most frequent treatment modality, followed by psychotherapy-

Table 1. Characteristics of pregnant women diagnosed with depression by documented treatment status.

Characteristic	No Treatment (n = 194,365)	Any Treatment (n = 6,003)	p-value
Maternal age at delivery, n (%)			<0.001 ^a
≤24 years	67,795 (34.88%)	957 (15.95%)	
25–34 years	101,206 (52.07%)	3,568 (59.44%)	
≥35 years	25,365 (13.05%)	1,477 (24.61%)	
Race, n (%)			<0.001 ^a
White, non-Hispanic	97,999 (50.42%)	3,726 (62.07%)	
Black, non-Hispanic	38,115 (19.61%)	802 (13.36%)	
Other, non-Hispanic	10,185 (5.24%)	267 (4.45%)	
Hispanic, all races	33,450 (17.21%)	713 (11.87%)	
Unknown	14,616 (7.52%)	495 (8.25%)	
Urban residence, n (%)	175,142 (90.11%)	5,390 (89.79%)	0.8247
Fee-for-service insurance, n (%)	21,089 (10.85%)	394 (6.57%)	<0.001 ^a
Psychiatric condition other than depression, n (%)	173,549 (89.29%)	5,864 (97.69%)	<0.001 ^a
Gestational hypertensive disorder, n (%)	33,606 (17.29%)	1,324 (22.06%)	<0.001 ^a
Gestational diabetes mellitus, n (%)	41,905 (21.56%)	1,349 (22.47%)	0.0185 ^a

^a Significance indicated at p<.05

Table 2. Comparison among pregnant women who received documented treatment for depression^a.

Characteristic	Medication-only (n = 3,569)	Psychotherapy-only (n = 2,084)	Psychotherapy + Medication (n = 350)	p ^b	p ^c	p ^d
Maternal age at delivery, n (%)				<0.001 ^a	<0.001 ^a	0.0103 ^a
≤24 years	672 (18.83%)	218 (10.46%)	29 (8.29%)			
25–34 years	2,023 (56.68%)	1,434 (68.81%)	224 (64.00%)			
≥35 years	874 (24.49%)	432 (20.73%)	97 (27.71%)			
Race, n (%)				<0.001 ^a	<0.001 ^a	0.3519
White, non-Hispanic	2,040 (57.16%)	1,612 (77.35%)	270 (77.14%)			
Black, non-Hispanic	582 (16.31%)	159 (7.63%)	27 (7.71%)			
Other, non-Hispanic	163 (4.57%)	97 (4.65%)	12 (3.43%)			
Hispanic, all races	522 (14.63%)	107 (5.13%)	26 (7.43%)			
Unknown	262 (7.34%)	109 (5.23%)	15 (4.29%)			
Urban residence, n (%)	3,175 (88.96%)	1,914 (91.84%)	315 (90.00%)	0.0005 ^a	0.5522	0.2507
Fee-for-service insurance, n (%)	244 (6.84%)	124 (5.95%)	16 (4.57%)	0.1924	0.1042	0.3053
Psychiatric condition other than depression, n (%)	3,494 (97.9%)	2,019 (96.88%)	346 (98.86%)	0.0175 ^a	0.2233	0.0393 ^a
Gestational hypertensive disorder, n (%)	862 (24.15%)	368 (17.66%)	67 (19.14%)	<0.001 ^a	0.0355 ^a	0.5024
Gestational diabetes mellitus, n (%)	940 (26.34%)	231 (11.08%)	47 (13.43%)	<0.001 ^a	<0.001 ^a	0.2020

^a Significance indicated at p<.05

p^b: Psychotherapy only vs Medication only

p^c: Psychotherapy + Medication vs Medication only

p^d: Psychotherapy + Medication vs Psychotherapy only

only ($n = 2,084$, 34.7%). A mere 350 (5.8%) women received both psychotherapy and medication, according to documentation.

There were no significant differences between the groups in terms of enrollment in a Medicaid FFS plan or presence of a co-occurring mental health diagnosis in addition to depression. Across the documented treatment groups, there was a high rate (over 96%) of co-occurring mental health disorders.

Women identified as having been prescribed medication-only were more likely to be younger, Black or Hispanic, live in rural areas, and have gestational hypertension and diabetes compared to those identified as receiving psychotherapy only or a combination of medication and psychotherapy.

Discussion

In this 2021 national cohort of Medicaid-insured pregnant women, 13% received a depression diagnosis, aligning with prior estimates of prenatal depression prevalence, which range from 10–20% [1–3]. Among those diagnosed with depression, 97% did not receive any documented depression treatment. Despite strong evidence that prenatal depression is prevalent [1,2], few appear to have received depression treatment in the sample.

Compared to women not receiving treatment, those who did receive documented treatment tended to be older, White non-Hispanic, and were more likely to have co-occurring physical or mental health conditions. Women diagnosed with gestational hypertension, which is influenced by increased stress and anxiety, were more likely to receive documented treatment. Medication-only was the most frequent documented depression treatment modality, accounting for nearly 60% of the treatment sample. Very few women, only 350 total, received both documented psychotherapy and medication. Within the sample, less than 2% of women with a depression diagnosis experienced a fetal death or a stillbirth. These numbers were too small for subgroup analyses regarding treatment modality.

Medicaid managed care plans are often described as offering sound case management, constructing broad provider networks and care-coordination activities with the aim of expanding access to treatment options [30–32]. Despite the majority of the sample being enrolled in Medicaid managed care, very few appear to have received treatment. Although those who likely did not receive treatment were more likely to be enrolled in Medicaid FFS, there were no statistically significant differences in FFS versus managed care enrollment across the treatment groups.

These findings align with prior research showing low treatment rates for prenatal depression [3,4], especially within Medicaid populations [17]. Unlike prior studies limited to individual states and programs, this study draws on a national Medicaid sample, providing a more comprehensive assessment of diagnosis and treatment patterns among pregnant Medicaid beneficiaries, rather than patterns driven by a single state's policies or delivery system. The high proportion of women with a depression diagnosis who did not receive documented treatment indicates a large unmet need among Medicaid beneficiaries and increases the potential risk for negative birth outcomes for both the mother and baby [22–24].

Findings should be interpreted in the context of several limitations inherent to administrative claims data. Treatment rates presented here reflect services documented in claims and may underestimate

true utilization of mental health services, particularly psychotherapy delivered in integrated or non-billed care settings. Additionally, treatment classifications reflect the presence of at least one claim and do not capture treatment adequacy, duration, adherence, or clinical appropriateness. Because the sample consisted of women with a documented birth in 2021, findings should also be interpreted in the context of the COVID-19 pandemic. Pandemic-related disruptions to healthcare delivery and utilization may have contributed to delayed care-seeking behaviors, reduced access to care, or changes in virtual mental health care delivery that may not have been captured in administrative claims data.

Further, Medicaid programs vary by state in coding practices, provider availability, reimbursement structures, behavioral health integration, and expectations for screening and treatment. These state-level differences are not captured in national claims data and may contribute to variation in observed treatment patterns. Future state-by-state analyses may help identify where changes in policy or practice could be targeted to improve care.

Finally, claims data lack insight into why an individual may decline treatment. Prior studies report concerns about medication effects on the fetus [25,27], limited understanding of risks and benefits, lack of energy, transportation barriers, and time constraints as common obstacles to care [33,34]. Similarly, depression symptom severity, which is an important predictor of treatment seeking [35,36] was not measurable using these claims data.

Untreated prenatal depression is associated with adverse maternal and neonatal outcomes such as preterm birth, lower Apgar scores, reduced breastfeeding initiation [22,23], cesarean delivery, and severe maternal morbidity [37,38]. These consequences are largely preventable. Prospective research shows psychotherapy is associated with reduced risk of preterm delivery in a dose-response manner [39]. Likewise, psychotherapy and antidepressant treatment during pregnancy is associated with improved delivery outcomes [8–13]. Future controlled studies should examine the impact of treatment on preterm and delivery outcomes, including mother's suicidal ideation during pregnancy and postpartum depression severity.

Treatment decisions should be individualized and respect patient autonomy when weighing the potential risks of medication against the well-established risks of untreated illness [17,24,40]. Providers play a critical role in facilitating informed decision-making by engaging women in discussions about the risks and benefits of pharmacologic treatment during pregnancy. Additionally, clinician education and training on medication initiation, continuation, tapering, and discontinuation are essential for ensuring women receive comprehensive and balanced guidance when weighing important treatment decisions throughout pregnancy. Future research should continue to strengthen the evidence base regarding the safety, effectiveness, and appropriateness of depression treatment during pregnancy to better inform clinical practice and shared decision-making.

Overall, these findings appear to highlight a persistent gap between clinical recommendations to treat prenatal depression [5] and real-world care patterns. Use of antidepressant medications appears to remain uncommon [4], and access to psychotherapy is limited due to behavioral health workforce shortages coupled with many providers not accepting Medicaid beneficiaries [39]. Together, these patterns suggest opportunities to improve screening, referral, and access to

evidence-based treatment for prenatal depression within Medicaid populations. The high prevalence of postpartum depression [41] and serious consequences of leaving it untreated [42–43] also warrant a closer look at whether these patterns persist among postpartum women. In addition, given the lower average income and educational attainment of pregnant women on Medicaid [44], it would also be interesting to see whether the same pattern holds among higher income women using commercial claims.

Conclusion

This study seeks to fill an important gap in the literature by examining prenatal depression treatment at a national scale among Medicaid-insured pregnant women. Findings highlight ongoing challenges related to screening, referral, and treatment in Medicaid populations [17,39,45]. It is not surprising, though very concerning, that only 3% received documentation of any form of treatment. The findings underscore the need to strengthen screening, diagnostic practices, patient and provider training, and access to evidence-based mental health care for pregnant women with prenatal depression. Future research should further examine barriers to treatment engagement and evaluate the impact of policy and programmatic interventions designed to improve prenatal mental health care.

Conflicts of Interest

The authors report no competing interests or disclosures.

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Author Contributions

SSG conceptualized the study, performed project management, and manuscript writing. MK performed project management, data interpretation, and manuscript writing. TR performed data interpretation. PL conducted data analysis and management. CI conducted data analysis and management. MT contributed to study conceptualization and manuscript writing. AH performed manuscript writing and data management.

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