

Cost-Effectiveness of Postpartum Depression Screening in the United States

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Background



- Postpartum Depression (PPD) impacts nearly **1 million mothers** annually in the U.S. ¹⁻³
- Prevalence of PPD increased from **9.4% in 2010** to **19% in 2021** ¹⁻³
- Untreated PPD results in adverse maternal and child health outcomes and increased economic burden ³

Objective

To evaluate the cost-effectiveness of implementing routine PPD screening compared to no routine screening from a societal perspective.

Significance: Societal Perspective

- **Maternal Mental Health conditions** are the leading cause of pregnancy-related mortality in women, which are preventable ^{1-2,4}
- **Lack of routine screening and continuum of care** ⁵
- **Substantial economic burden on families and society** ^{3,6-7}

Methods

Study Design

- **Cost-Effectiveness Analysis**
- **Societal Perspective**
- Secondary data (MEPS: 2017-2020) analysis and published U.S.-based literature

Study Population

Women who delivered within the past year, identified using delivery-related ICD-10 codes

Self-reported mental health status:
 ≥4 – probable PPD
 ≤3 – lower/ no depressive symptom

Statistical Analysis

- **Propensity Score Matching using Probit Regression**
- Covariates in the model include demographic variables and perceived health status

Outcome Variables

- Total Emergency Room Visits
- Inpatient Hospitalizations
- Total Prescribed Medications

Cost Inputs

- Screening and pharmacological costs
- Productivity Losses
- Societal costs of untreated PPD

Results

MATCHED SAMPLE



Health Utilization Outcomes

After Propensity Score Matching

Outcome	Untreated PPD (≥4)	Treated/Screened (≤3)	p-value
Inpatient hospitalizations	84%	19%	0.025*
Emergency room visits	31%	24%	0.28
Total prescribed medications	68%	57%	0.19

*Statistically significant at $p < 0.05$

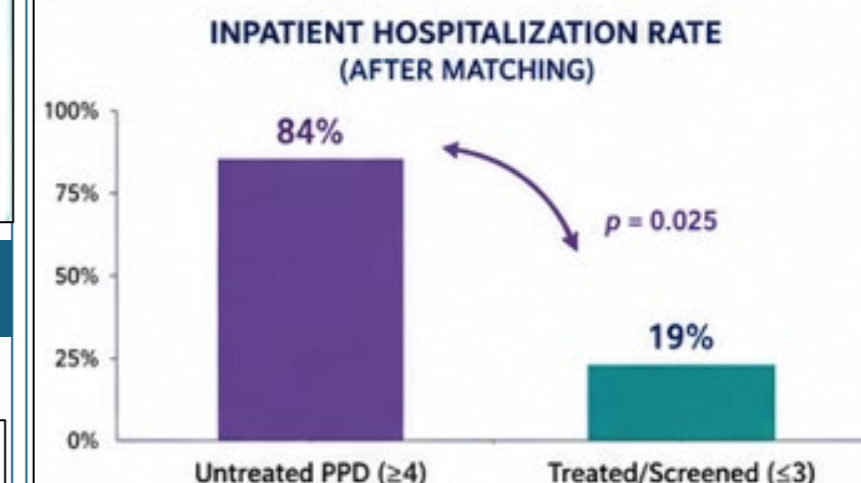
Cost Outcomes

ECONOMIC BURDEN OF UNTREATED PPD



Key Findings

PPD is significantly associated with increased inpatient hospitalizations.



No statistically significant differences were observed for ER visits or prescription utilization.

Conclusion and Policy Implications

- Routine PPD screening may improve early detection
- Untreated PPD increases inpatient hospitalization burden
- Standardized screening may reduce long-term societal costs

Limitations

- PPD was identified using a proxy measure
- A small proportion of women were screened
- Cross-sectional data limited causal inference
- Cost estimates were derived from only published literature