Socioeconomic Vulnerabilities and Postpartum Depression: Assessing the Aftermath of *Dobbs v Jackson* in Trigger and Non-Trigger States

Onur Baser, MA, MS, PhD[1]; Yuanqing Lu, MS[2]; Facundo Sepulveda, PhD[3]; Nehir Yapar[2], Amy Endrizal, JD, MPH[2]
[1]Graduate School of Public Health, City University of New York (CUNY), New York, NY; [2]Columbia Data Analytics, New York, NY; [3]Department of Economics, University of Santiago, Chile

BACKGROUND

The US Supreme Court's June 24, 2022, decision in *Dobbs v Jackson Women's Health Organization* overturned *Roe v Wade* and triggered significant changes in state abortion laws, with 21 states poised to ban or severely restrict abortion access.[1,2] Specifically, 14 states—Alabama, Arkansas, Idaho, Indiana, Kentucky, Louisiana, Mississippi, Missouri, North Dakota, Oklahoma, South Dakota, Tennessee, Texas, and West Virginia—implemented near-total or total bans on abortion as a result.[3] Additionally, 7 states—Arizona, Florida, Georgia, Nebraska, North Carolina, South Carolina, and Utah—established gestational limits on abortion, ranging from 6 to 18 weeks.[3]

The *Dobbs* decision allowed states to restrict abortion rights, providing a unique natural experiment to assess the effects of abortion access on mental health outcomes.[2] As state decisions to restrict abortion rights can be considered largely independent of unobserved factors affecting abortion demand, comparing states with restricted vs unrestricted access offers a novel approach to identify the effects of abortion access in the post-*Dobbs* landscape.

OBJECTIVES

This study estimated changes in postpartum depression (PPD) diagnoses after *Dobbs* in states with trigger laws vs those without. By leveraging the variation in state-level abortion policies, we seek to provide robust evidence on the relationship between abortion access and mental health outcomes, addressing long-standing methodological challenges in this field of study.

METHODS

A retrospective cohort study was conducted assessing the Kythera Labs Medicaid population from January 2019 to June 2024.[4]

Difference-in-difference models were used to assess changes in PPD diagnosis rates pre- vs post-*Dobbs* (21 trigger states, 29 non-trigger states).[5] To define exposure and comparison groups, a binary variable was constructed indicating residence in one of the 21 states with trigger laws or in any of the 29 non-trigger states across 2 distinct periods.

Figure 1. Pre-*Dobbs* Study Period Timeline

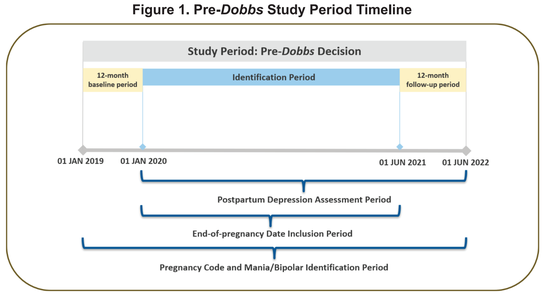
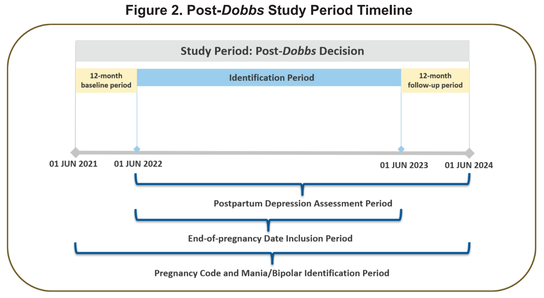


Figure 2. Post-*Dobbs* Study Period Timeline



RESULTS

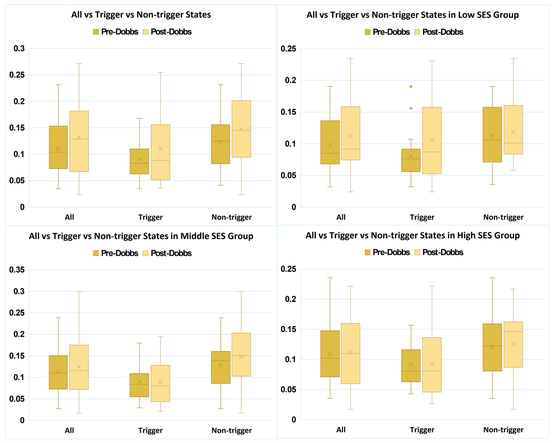
The post-*Dobbs* period included 45,359 individuals, of whom 22,785 resided in trigger states and 22,574 in non-trigger states. Women in trigger states were younger, more likely to reside in low socioeconomic status areas, and less likely to have obstetrical complications, maternal complications, and lifestyle risk factors. Baseline PPD diagnosis rates were lower (8.51%) in trigger states than in non-trigger states (12.66%). Post-*Dobbs*, PPD diagnosis rates were 10.20% in trigger states and 14.34% in non-trigger states.

Table 1. Baseline Descriptive Characteristics Pre- and Post-Dobbs in Trigger vs Non-Trigger States

Patient Characteristics	Pre-Dobbs (N =105,668)			Post-Dobbs (N = 45,359)		
	Trigger States (N=48,775)	Non-trigger States (N=56,399)	Std. Diff.	Trigger States (N=22,785)	Non-trigger States (N=22,574)	Std. Diff.
Age (years), mean	26.53 (5.69)	27.98 (5.84)	0.25	26.63 (5.77)	28.26 (5.90)	0.28
Age group (years), n (%)						
12-17	997 (2.04)	711 (1.26)	0.06	469 (2.06)	254 (1.13)	0.08
18+	47,778 (97.96)	55,688 (98.74)	0.06	22,316 (97.94)	22,320 (98.87)	0.08
18-19	3,344 (6.86)	2,452 (4.35)	0.11	1,528 (6.71)	957 (4.24)	0.11
20-24	15,687 (32.16)	14,361 (25.46)	0.15	7,455 (32.72)	5,447 (24.13)	0.19
25-29	14,613 (29.96)	17,470 (30.98)	0.02	6,476 (28.42)	6,834 (30.27)	0.04
30-34	9,265 (19.00)	13,078 (23.19)	0.10	4,471 (19.62)	5,478 (24.27)	0.11
35+	4,869 (9.98)	8,327 (14.76)	0.14	2,386 (10.47)	3,604 (15.97)	0.16
Pandemic Period Indicator, n (%)	39,704 (81.40)	46,582 (82.59)	0.03	0 (0.00)	0 (0.00)	0.00
US region						
Midwest	2,929 (6.01)	17,206 (30.51)	0.65	798 (3.50)	5,782 (25.61)	0.66
Northeast	0 (0.00)	13,378 (23.72)	0.76	0 (0.00)	7,851 (34.78)	1.03
South	37,660 (77.21)	3,408 (6.04)	2.13	17,875 (78.45)	2,079 (9.21)	1.95
West	8,186 (16.78)	22,394 (39.71)	0.51	4,112 (18.05)	6,862 (30.40)	0.29
Comorbidity scores						
Charlson Comorbidity Index score ≥1	1.11 (0.3807)	1.11 (0.3919)	0.02	1.12 (0.4142)	1.12 (0.3846)	0.00
Chronic Disease Score	2.11 (1.4193)	2.15 (1.4510)	0.02	2.33 (1.5012	2.19 (1.4785	0.09
Elixhauser Index score ≥1	1.60 (0.9928	1.71 (1.0775)	0.11	1.68 (1.0831)	1.83 (1.1755)	0.13
Location, n (%)						
Urban	5,778 (11.85)	4,642 (8.23)	0.12	2,761 (12.12)	2,028 (8.98)	0.10
Suburban	32,033 (65.68)	41,423 (73.45)	0.17	14,993 (65.80)	16,692 (73.94)	0.18
Rural	10,866 (22.28)	10,318 (18.29)	0.10	4,963 (21.78)	3,847 (17.04)	0.12
Socioeconomic status score, n (%)						
Low	20,136 (41.28)	13,771 (24.42)	0.37	9,309 (40.86)	5,303 (23.49)	0.38
Middle	15,611 (32.01)	18,243 (32.35)	0.01	7,168 (31.46)	7,443 (32.97)	0.03
High	11,558 (23.70)	23,278 (41.27)	0.38	5,650 (24.80)	9,389 (41.59)	0.36
ADI score, n (%)						
Low	25,071 (51.40)	17,315 (30.70)	0.43	11,650 (51.13)	7,161 (31.72)	0.40
Middle	18,134 (37.18)	19,235 (34.11)	0.06	8,507 (37.34)	8,202 (36.33)	0.02
High	4,881 (10.01)	19,532 (34.63)	0.61	2,229 (9.78)	7,092 (31.42)	0.55
Unemployment rate, n (%)						
Low	15,523 (31.83)	10,284 (18.23)	0.32	7,491 (32.88)	4,346 (19.25)	0.32
Middle	13,323 (27.32)	15,738 (27.90)	0.01	5,807 (25.49)	8,293 (36.74)	0.24
High	19,929 (40.86)	30,364 (53.84)	0.25	9,487 (41.64)	9,935 (44.01)	0.04
Behavioral healthcare providers, n (%)						
Low	33,489 (68.66)	5,186 (9.20)	1.57	15,396 (67.57)	2,023 (8.96)	1.51
Middle	12,476 (25.58)	25,599 (45.39)	0.41	5,743 (25.21)	11,978 (53.06)	0.59
High	2,810 (5.76)	25,601 (45.39)	0.99	1,646 (7.22)	8,573 (37.98)	0.79
SAMHSA grant, n (%)						
Low	12,229 (25.07)	7,585 (13.45)	0.30	6,196 (27.19)	3,239 (14.35)	0.32
Middle	8,546 (17.52)	20,641 (36.60)	0.43	4,104 (18.01)	10,208 (45.22)	0.61
High	28,000 (57.41)	28,160 (49.93)	0.16	12,485 (54.79)	9,127 (40.43)	0.29
Education score, n (%)						
Low	32,978 (67.61)	6,211 (11.01)	1.45	15,247 (66.92)	2,393 (10.60)	1.42
Middle	15,108 (30.97)	28,799 (51.06)	0.41	7,178 (31.50)	11,538 (51.11)	0.40
High	689 (1.41)	21,376 (37.90)	0.99	360 (1.58)	8,643 (38.29)	1.03
Medicaid Health Home, n (%)						
Medicaid Health Home for mental illness	3,824 (9.45)	18,880 (33.48)	0.59	1,269 (6.65)	7,264 (32.18)	0.67
ACA Medicaid expansion, n (%)	24,571 (50.38)	53,993 (95.73)	1.18	11,674 (51.24)	21,398 (94.79)	1.11
Any obstetrical complications,† n (%)	32,219 (66.06)	43,628 (77.36)	0.25	15,832 (69.48)	18,150 (80.40)	0.25
Any maternal comorbidity, n (%)	8,006 (16.41)	11,053 (19.60)	0.08	4,321 (18.96)	4,750 (21.04)	0.05
Any lifestyle risk factors, n (%)	6,626 (13.58)	11,942 (21.17)	0.20	4,024 (17.66)	5,768 (25.55)	0.19
PPD diagnosis among pregnant women, n (%)	4,149 (8.51)	7,138 (12.66)	0.04	2,325 (10.20)	3,246 (14.34)	0.13

ACA: Affordable Care Act; ADI: area deprivation index; PPD: postpartum depression; SAMHSA: Substance Abuse and Mental Health Services Administration; SES: socioeconomic status; Std. Diff.: standardized difference.

Figure 3. PPD Diagnosis Rate Comparisons in Trigger and Non-Trigger States Pre- and Post-*Dobbs*

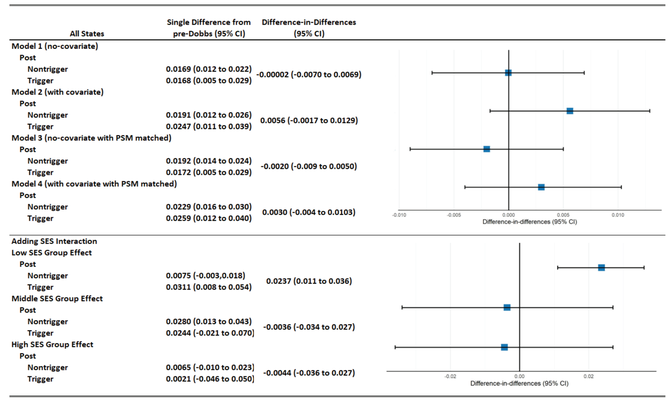


PPD: postpartum depression; SES: socioeconomic status.

RESULTS (cont'd)

Variation of PPD rates in trigger states between the pre-and post-*Dobbs* periods increased more than in non-trigger states (**Figure 3**). Obstetrical complications, maternal comorbidities, and lifestyle risk factors were not included as covariates to avoid overcontrolling the model.

Figure 4. Difference-in-Difference Models Comparing PPD Diagnosis Rates Pre-and Post-*Dobbs* in Trigger vs Non-trigger States



CI: confidence interval; PPD: post partum depression; PSM: propensity score matching; SES: socioeconomic status
*All hypothesis testing was 2-sided.
The 95% confidence intervals were estimated using cluster-robust standard errors, reported in parentheses.

The single-difference coefficients represent the change in PPD diagnosis rates post-*Dobbs* in trigger states relative to non-trigger states (**Figure 4**). Point estimates range from a slight decrease (-0.0020 in Model 3) to a small increase (0.0056 in Model 2) in PPD diagnosis rates in trigger states relative to non-trigger states.

Model 4 (most comprehensive) includes covariates and Propensity Score Matching (PSM), and suggests a small increase in PPD diagnosis rates in trigger states vs non-trigger states after *Dobbs* (not statistically significant). The narrow confidence intervals across all models indicate relatively precise estimates, suggesting that if there was an effect of *Dobbs* on PPD diagnosis rates, it is likely to be small.

CONCLUSION

Overall, women in states with abortion trigger laws experienced a small positive but statistically insignificant increase in PPD diagnoses following *Dobbs* compared with those in non-trigger states.

Residents of trigger states were, on average, younger and more likely to reside in the South and in rural areas, characterized by lower SES and higher neighborhood deprivation scores. Interestingly, these individuals exhibited lower rates of maternal comorbidities and lifestyle risk factors and were less likely to experience obstetrical complications. These disparities in demographic, geographic, and clinical profiles between the groups underscore the importance of these factors in interpreting the impact of *Dobbs* on maternal health outcomes.

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145 Hudson St., Suite 205
New York, NY 10013 USA
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