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Table 2. Odds of adverse outcomes for women AMA vs. <40, unadjusted and adjusted

	OR (95% CI)	aOR (95% CI) Adjusted for BMI and Parity	p-value
Composite outcome*	1.80 (0.74, 4.34)	1.85 (0.76, 4.54)	0.18
PPH	1.71 (0.65, 4.46)	1.71 (0.65, 4.53)	0.28
Transfusion	1.58 (0.35, 7.11)	1.68 (0.36, 7.77)	0.51
Maternal ICU admission	1.90 (0.41, 8.73)	2.03 (0.43, 9.55)	0.37
Chorioamnionitis	1.58 (0.35, 7.11)	0.78 (0.10, 6.04)	0.81

<sup>\*</sup>Composite outcome composed of PPH, transfusion, hysterectomy, and maternal death

## 258 Longitudinal study of Postpartum Depression in COVID-19 Era: Risk and Protective Factors



<sup>1</sup>Meir Medical Center, Kfar Saba, HaMerkaz, <sup>2</sup>Rambam Medical Center, Haifa, HaZafon, <sup>3</sup>British Columbia, Vancouver, BC, <sup>4</sup>The Rappaport faculty of Medicine, Technion, Haifa, Haifa, HaZafon, <sup>5</sup>Hillel Yaffe Medical Center, Hadera, HaZafon, <sup>6</sup>Meir Medical Center, Meir Medical Center, Tel Aviv, <sup>7</sup>Edith Wolfson Medical Center, Holon, HaMerkaz, <sup>8</sup>Wolfson Medical Center, Macabim, HaMerkaz, <sup>9</sup>Haifa University, Haifa, HaZafon, <sup>10</sup>Hillel Yaffe Medical Center, Hadera; The Rappaport faculty of Medicine, Technion, Haifa, Ramat-Gan, Hefa

OBJECTIVE: COVID-19 impacted the childbirth experience and increased rates of postpartum depression (PPD). We assessed longitudinal effects of the pandemic on rates of PPD.

STUDY DESIGN: We evaluated PPD causes and symptoms among women who delivered during the first COVID-19 quarantine in Israel. Postpartum women completed online questionnaires 3 (T1) and 6 months (T2) following delivery. COVID-19 related questionnaires included 'Fear of COVID-19' and 'COVID-19 exposure' questionnaires. PPD symptoms, situational anxiety and social support, were evaluated with the EPDS, STAI, and MSPSS questionnaires.

**RESULTS:** Mean EPDS scores increased between T1 and T2  $(6.31\pm5.6$ vs. 6.92±5.9, mean difference -0.64±4.59 (95% CI (-1.21)- (-0.06)); t(244)=-2.17, p=0.031) and STAI scores decreased (45.35±16.4 vs.  $41.47\pm14.0$ , t(234)=4.39, p=0.000). Despite exposure to increased numbers of COVID-19 events  $(3.63\pm1.8 \text{ vs. } (6.34\pm2.3) \text{ the impact})$ of exposure decreased between T1 and T2 (8.91 $\pm$ 4.6 vs. 7.47 $\pm$ 4.1), p< 0.001). No differences were found between Fear of COVID-19 in T1 (17.25 $\pm$ 5.3), and T2 (17.10 $\pm$ 5.3); t=0.42, p=0.676, nor in COVID-19 related financial difficulties between T1 (2.80±1.2) and T2  $(2.83\pm1.1)$ ; t(266)=-0.581, p=0.561. In the MSPSS, significant differences were noted on the family scale between T1 (.36.10±1) and T2  $(5.91\pm1.4)$  scores; t(216)=2.68, p=0.0008. Regression analysis showed three statistically significant variables that correlated with increased EPDS scores; MSPSS family subscale [F(1,212.00)= 4.308, p =0.039], STAI scores [F(1,212.00) = 31.988, p =0.000], and the impact of exposure to COVID-19 [F(1,212.00) = 5.038, p]

CONCLUSION: Rates of PPD increased for women who delivered during the first COVID 19 lockdown. Further research is warranted to help reduce PPD among these women.

## 259 Sociodemographic Determinants of COVID-19 Susceptibility and Outcomes in the Pregnant **Population**



Naiha Mussarat<sup>1</sup>, Jane Martin<sup>2</sup>, Frank Williams<sup>1</sup>, Jeffrey Burton<sup>2</sup>, Ardem Elmayan<sup>1</sup>, Joseph Biggio<sup>2</sup>

<sup>1</sup>Ochsner Health System, New Orleans, LA, <sup>2</sup>Ochsner Health, New Orleans,

**OBJECTIVE:** We sought to examine whether sociodemographic factors that contribute to healthcare disparities are also associated with disparities in COVID-19 infection rates and outcomes.

**STUDY DESIGN:** We conducted a retrospective study of all pregnant patients tested for COVID-19 from March 2020 to December 2020 in our healthcare system. Our primary analysis compared COVID positive and negative patients to identify sociodemographic factors associated with infection. We then stratified by race/ethnicity and compared rates of adverse composite neonatal and maternal outcomes. Maternal composite included cesarean section, ICU transfer, preeclampsia, and stillbirth; Neonatal composite included preterm delivery, small for gestational age, NICU admission, neonatal COVID infection.

RESULTS: 8,889 pregnant patients were tested for COVID 19; 345 were positive and 8,544 were negative. Non-Hispanic Black (NHB) race, Hispanic ethnicity, and higher BMI were associated with increased odds of being COVID positive (Table 1). The BMI association was most pronounced for NHB patients with an OR 1.13 (95% CI 1.03,1.23) for each 5 unit increase in BMI. Current/former smokers had a lower odds of COVID infection and this was most pronounced in NHB (OR 0.41, 95% CI 0.3 - 0.7). While COVID infection was associated with NHB race and Hispanic ethnicity, in COVID positive patients, there was no disparity in the maternal composite outcome between ethnicities (Table 2). However, the rate of adverse neonatal outcomes was increased nearly 50% in NHB compared to Non-Hispanic, White (NHW) patients. Neonatal outcomes were similar between Hispanic patients and NHW patients.

**CONCLUSION:** Non-Hispanic Black race and Hispanic ethnicity were associated with an increased odds for COVID infection in pregnancy. Maternal outcomes were similar across the racial/ethnic groups, but adverse neonatal outcomes were more common in Non-Hispanic Black patients.

Table 1 Sociodemographic Factors within COVID positive and COVID negative patients					
	COVID POSITIVE N =345	COVID NEGATIVE N= 8544	OR (95% CI)	P value	
AGE, MEAN YEARS	27.8	28.3		0.09	
PRE-PREGNANCY BMI MEAN	32	31		<0.01	
ETHNICITY (%)				<0.01	
NON-HISPANIC BLACK	184 (53%)	3479(41%)	OR 2.1 (95% CI 1.6, 2.7)		
NON-HISPANIC WHITE	103 (30%)	4066(48%)	Referent		
HISPANIC	50 (15%)	614(7%)	OR 3.2 (95% CI 2.3, 4.6)		
PUBLIC INSURANCE (%)	103 (30%)	2224(26%)		0.08	
CURRENT/FORMER SMOKER (%)	47 (15%)	2115 (25%)		<0.01	

Table 2: Rate Ratios for Maternal and Neonatal Outcomes in COVID positive patients			
	Rate Ratio (95% CI)		
MATERNAL OUTCOMES (vs. Non-Hispanic White)	Referent		
NON-HISPANIC BLACK	1.12 (0.80, 1.57)		
HISPANIC	0.87 (0.52, 1.44)		
NEONATAL OUTCOMES (vs. Non-Hispanic White)	Referent		
NON-HISPANIC BLACK	1.48 (1.02, 2.14)		
HISPANIC	0.71 (0.38, 1.34)		