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584 Influence of the COVID-19 pandemic on social determinants of health among an inner-city obstetric population

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OBJECTIVE: To investigate differences in social determinants of health (SDoH) among women who experienced pregnancy during and prior to the COVID-19 pandemic.

STUDY DESIGN: This retrospective cohort study examined SDoH in 577 postpartum women enrolled from a single academic medical center, 2011-2021. Women were included in the pandemic group if they delivered on or after March 30, 2020 and compared to deliveries before that date (referent group). Patient medical records were used to collect sociodemographic, pregnancy, and infant outcome data. Study participants were interviewed to collect detailed information regarding their perceived social, emotional, and physical environment as indicators of SDoH. Generalized linear modeling estimated the influence of SDoH on births during the COVID-19 pandemic.

RESULTS: 577 postpartum women were enrolled in the study, of which 125 (22%) delivered during the COVID-19 pandemic and 452 (78%) delivered before the pandemic. Baseline maternal characteristics were similar with few differences noted in Table 1. Women who delivered during the pandemic were more likely to report limited social or emotional support (RR 1.62, 95% CI 1.02-2.59) and higher race-based discrimination. Mothers in the pre-pandemic group were more likely to utilize federally funded programs such as Medicaid, food stamps, and WIC during their pregnancy. The referent group also had a higher frequency of work in the service industry and reported more limited access to transportation. In addition, mothers in the pre-pandemic group were more likely to have onset of prenatal care at a later gestational age and fewer total prenatal care visits. Of mothers in the pandemic cohort, 7 received the COVID-19 vaccine during pregnancy.

CONCLUSION: The COVID-19 pandemic created an unprecedented situation. In the county where this study took place, extreme preterm birth decreased during the pandemic and we experienced the lowest infant mortality rate and Black infant mortality rate in its history. It is imperative that we focus on SDoH that were mitigated during this time and their effects on maternal and infant health.

Maternal Characteristics	Pregnancies delivering prior to March 30, 2020 (n=452)	Pregnancies delivering on or after March 30, 2020 (n=125)	P-value
Age at delivery, y	26.2 (±5.9)	28.7 (±6.1)	<0.01*
Race and ethnicity			<0.01*
Non-Hispanic white	176 (39.0%)	51 (40.8%)	
Non-Hispanic black	240 (53.2%)	46 (36.8%)	
Hispanic/Latino	16 (3.6%)	21 (16.8%)	
Asian	14 (3.1%)	5 (4.0%)	
Multiracial/other	5 (1.1%)	2 (1.6%)	
Pregnancy weight gain	26.6 (±23.6)	28.1 (± 18.2)	0.5
BMI (pre-pregnancy)			0.8
<18.5	21 (4.7%)	4 (3.2%)	
18.5-24.9	150 (33.5%)	42 (33.6%)	
25.0-29.9	112 (25.0%)	31 (24.8%)	
>30.0	165 (36.8%)	48 (38.4%)	
Gravida	2 (1, 4)	3 (2, 4)	0.09
Para	2 (1, 3)	2 (1, 3)	0.1
Preterm birth <37 weeks	62 (13.7%)	26 (20.8%)	0.051
Interpregnancy interval (months)	43.8 (± 38.7)	45.5 (±34.9)	0.7
Mother's highest level of education			0.8
9-12th grade, no diploma, or less	124 (27.6%)	31 (24.8%)	
High school graduate or GED complete	125 (27.8%)	36 (28.8%)	
Some college credit but no degree or higher (Associate's, Bachelor's, Doctorate)	200 (44.5%)	58 (46.4%)	
Median household income			<0.01*
< $40,000	341 (80.6%)	67 (63.8%)	
$40,000-$80,000	42 (9.9%)	16 (15.2%)	
>$80,000	40 (9.5%)	22 (21.0%)	
Any alcohol use during pregnancy	57 (13.0%)	15 (12.1%)	0.8
Any drug use during pregnancy	64 (14.2%)	16 (12.8%)	0.7
Any tobacco use during pregnancy	115 (26.0%)	34 (27.4%)	0.8

Table 1: Comparison of baseline maternal characteristics between mothers with pregnancies delivering prior to and during the COVID-19 pandemic. The pandemic group included deliveries on or after March 30, 2020. Data is displayed as mean (±SD), median (IQR) and n (%).

	Pregnancies delivering prior to March 30, 2020	Pregnancies delivering on or after March 30, 2020	RR (95% CI)
Large household (>5 persons)	106 (24.2%)	31 (25.2%)	1.04 (0.74-1.47)
Lived in shelter during pregnancy	13 (3.1%)	3 (2.5%)	0.80 (0.23-2.78)
Utilities cut off for monetary reasons	15 (3.8%)	4 (3.2%)	0.86 (0.29-2.54)
No access or limited transportation	159 (36.7%)	19 (15.2%)	0.41 (0.27-0.64)
Feels unsafe in neighborhood	37 (8.6%)	15 (12.0%)	1.40 (0.80-2.47)
Service work during pregnancy	195 (77.1%)	36 (48.0%)	0.62 (0.49-0.80)
Limited access to social or emotional support	47 (10.9%)	22 (17.7%)	1.62 (1.02-2.59)
Less than moderate joy/happiness in past year	37 (8.6%)	8 (6.5%)	0.75 (0.36-1.58)
Limited prenatal care (<5 visits)	109 (24.1%)	21 (16.8%)	0.70 (0.46-1.06)
Delayed or late first prenatal care visit (after 14 weeks)	160 (36.9%)	27 (22.9%)	0.62 (0.44-0.88)
Medicaid utilization	293 (64.8%)	58 (46.4%)	0.72 (0.59-0.87)
Utilization of food stamps	245 (54.2%)	36 (28.8%)	0.53 (0.40-0.71)
WIC utilization	292 (64.6%)	59 (47.2%)	0.73 (0.60-0.89)
Experienced physical abuse during pregnancy	9 (2.1%)	2 (1.6%)	0.78 (0.17-3.54)
Experienced verbal abuse before or during pregnancy	79 (18.8%)	25 (20.5%)	1.09 (0.73-1.63)
Limited job availability	215 (54.7%)	29 (24.0%)	0.44 (0.31-0.61)
Discrimination based on race	48 (11.3%)	22 (18.0%)	1.59 (1.003-2.53)

Table 2: Social Determinants of Health comparing mothers with pregnancies delivering prior to and during the COVID-19 pandemic. Data is reported as n (%) with relative risk (95% CI)

585 The impact of hepatitis C on obstetric outcomes in an opioid use disorder-specific prenatal clinic

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OBJECTIVE: Opioid use disorder (OUD) increases risk of hepatitis C (HCV) infection. Previous studies have shown that HCV is associated with adverse outcomes among pregnant women. However, these results could be confounded by other OUD use and other social determinants of care. This study examines the impact of HCV on maternal and neonatal outcomes in an exclusively OUD-specific prenatal clinic.

STUDY DESIGN: This is a retrospective cohort study of OUD patients who received full prenatal, delivery, and postpartum care in the