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quarters, (20.6% vs 13.3% (Q1) vs 11.7% (Q3) vs 14.5% (Q4), p<0.001), ARDS, and IMV were also more common in late season (Table). In adjusted analyses, women with late-season influenza had 2.16-fold higher odds of ARDS (95%CI 1.43,3.28) and 2.79-fold higher odds of IMV (95% CI 1.43,5.46).

CONCLUSIONS: Influenza infection between April-June, i.e. late-season influenza, is associated with increased odds of severe maternal morbidity, ARDS, and IMV. Further research into the etiology of this phenomenon is needed.

Table: Maternal morbidities among women with influenza infection in pregnancy, by quarter of infection

	Overall n=3,831 (Weighted N = 7,097)	Discharge quarter Q1 n=2,246 (Weighted N = 4,183)	Q2 n=560 (Weighted N = 1,054)	Q3 n=96 (Weighted N = 179)	Q4 n=929 (Weighted N = 1,681)	p-value
	N (%) or mean (standard deviation)					
Any Severe Maternal Morbidity	1,037 (14.6)	555 (13.3)	217 (20.6)	21 (11.7)	244 (14.5)	<0.001
Acute renal failure	78 (1.1)	32 (0.8)	31 (2.9)	*	15 (0.9)	0.002
ARDS	351 (5.0)	174 (4.1)	92 (8.8)	* (4.1)	78 (4.6)	<0.001
Cardiac arrest/ventricular fibrillation	10 (0.1)	*	*	*	*	0.10
DIC	23 (0.3)	*	13 (1.3)	*	*	<0.001
Pulmonary edema / Acute heart failure	68 (1.0)	41 (1.0)	18 (1.7)	*	*	0.19
Sepsis	595 (8.4)	314 (7.5)	119 (11.3)	*	152 (9.1)	0.04
Shock	83 (1.2)	43 (1.0)	28 (2.7)	*	*	0.003
Blood products transfusion	160 (2.3)	89 (2.1)	37 (3.5)	*	28 (1.7)	0.15
Temporary tracheostomy	11 (0.2)	*	11 (1.0)	*	*	<0.001
Ventilation	143 (2.0)	62 (1.5)	44 (4.1)	*	33 (2.0)	0.007
Length of stay (cleaned)	3.3 (2.3)	3.3 (2.1)	4.4 (3.4)	3.3 (1.6)	2.9 (1.7)	<0.001

Q1: Jan-March, Q2: April-June, Q3: July-Sept, Q4: Oct-Dec

* N < 10 and output suppressed per data vendor requirements.

22 Assessing influenza vaccination behaviors among medically underserved obstetric patients

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OBJECTIVES: To examine rates of influenza vaccine uptake among medically underserved obstetric patients. To compare reasons for vaccine refusal among women who consistently refused vaccination and women who accepted after refusing initially. To explore variations in vaccine uptake by concordance of patient and provider race/ethnicity.

METHODS: Prospective cohort study of pregnant women seen in clinic from September 15, 2018 to April 12, 2019. Primary outcomes included influenza vaccine uptake and reasons for vaccine refusal, categorized based on the Health Belief Model. We compared characteristics between three vaccination groups (never refused, refused and vaccinated, refused and not vaccinated) using chi-square and one-way ANOVA. We used multivariate logistic regression to calculate adjusted odds ratios (aORs) and 95% confidence intervals (CI) for associations between patient characteristics and vaccine acceptance. Mixed logistic regression models were used to explore the impact of provider-patient race concordance on influenza vaccine uptake during each encounter.

RESULTS: Among 1,666 eligible women, 902 (54.1%) were vaccinated. Of these, 183 (20.3%) initially refused. Those who refused and were never vaccinated were more likely to be non-Hispanic black (aOR 1.64, 95% CI 1.05-2.56) and less likely to be Hispanic (aOR 0.44, 95% CI 0.24-0.81). Overall, perceived barriers were the most common reason for refusal (52.4%). Women who refused consistently were more likely to cite reasons related to perceived benefits (38.5% vs. 7.6%). Those who eventually accepted were more likely to cite cue to action (22.4% vs. 12.6%). Women who were race discordant with their provider were more likely to be vaccinated compared to those who were race concordant (57.9% vs 52.9%, aOR 1.16, 95% CI 1.07-1.27).

CONCLUSIONS: Women who refuse influenza vaccination in pregnancy may later choose to be vaccinated. Continued promotion of vaccination throughout pregnancy is crucial for vaccine uptake.

23 Canadian surveillance of COVID-19 in pregnancy: Epidemiology and maternal and infant outcomes

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OBJECTIVES: To describe the Canadian approach to rapid epidemic surveillance through the CANCOVID-Preg network.

To assess the burden of COVID-19 in pregnancy and associated maternal and infant outcomes in Canada.

METHODS: We mobilized an established network of care providers in response to the global pandemic due to a paucity of data on COVID-19 in pregnancy. We engaged leads in each province/territory to develop an approach for identification of all cases of SARS-CoV-2 in pregnancy and collection of outcome data for women and infants. Women with documented infection in pregnancy are identified by public health and/or clinical identification and data collection is prospective via medical records. Data collection forms were designed to ensure harmonization between Canadian provinces/territories and with international networks (e.g. COVI-Preg, WHO).

In Canada, it is not recommended that COVID-19 affected mother-infant pairs are separated. We will provide data to evaluate this practice. Data will be described using descriptive statistics. If sample size allows, comparisons of maternal/fetal outcomes will be made among variables (e.g., symptom severity, ventilation, treatments, maternal age, education, etc.) using regression analyses.

RESULTS: The CANCOVID-Preg network and national surveillance for COVID-19 in pregnancy was rapidly implemented. Within 2 weeks of pandemic declaration, national meetings and study protocol development began. The first all-member meeting occurred at 7 weeks when organization structures had been launched in all regions. Dedicated funding was secured by 3 months. Between March 1, 2020 to June 24, 2020, 307 cases were identified in Canada, with

regional distribution proportional to population. As of May 30, 2020, data have been collected for 22 pregnancies in British Columbia (BC) and 27 in Ontario (ON). In BC, mean gestational age at SARS-CoV-2 diagnosis was 20.3 weeks (±9.9, range: 5.3 - 38.3). Among those with detailed data, 31.6% (6/19) had a known positive contact in the community; 2 reported travel before diagnosis. Among 46 pregnancies (BC & ON), the most frequently documented symptoms were cough (37.0%), fever (32.6%). Two (9%) BC cases have been hospitalized due to COVID-19; no ICU admission or mechanical ventilation. Two (9%) BC and 21 (78%) ON cases have delivered. One infant (of 12 with results) in ON tested positive for SARS-CoV-2 and may represent a vertical transmission. Updated data will be presented at the IDSOG Annual Meeting.

CONCLUSIONS: This national surveillance project was largely enabled by national care provider networks as well as provincially dedicated database software and routine perinatal data collection. Our team will provide national data on COVID-19 in pregnancy to support clinical care of pregnant women and their infants.

24 Health disparities among pregnant women with sars-cov-2 infection at a university medical center in northern California

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OBJECTIVES: Black and Hispanic/Latinx populations have experienced disproportionate burden of illness during the novel 2019 coronavirus (COVID-19) pandemic. We describe the prevalence of SARS-CoV2 and characteristics in pregnant women at a university medical center in Northern California to identify potential risk factors for infection.

METHODS: We conducted an IRB approved retrospective cohort analysis of pregnant women who were aged 15-46 years old and tested for SARS-CoV2 at our university hospital system. This cohort included pregnant women presenting for evaluation of COVID-19-associated symptoms and asymptomatic pregnant women identified by a universal testing protocol of all women admitted to Labor and Delivery. Demographics pertinent to social determinants of health such as race/ethnicity, insurance payer status and primary language were abstracted from the electronic medical record. Chi-square and Student's t-tests were used for statistical analyses.

RESULTS: We identified 961 pregnant women who were tested for SARS-CoV2, of whom 71 were tested through the Emergency Department/Intensive Care Unit (ICU) and 890 in Labor and Delivery, from March 1 to June 29, 2020. Majority of women (806, 84%) were asymptomatic upon presentation and (154,16%) were symptomatic. Patient-reported race/ethnicity of our cohort was 32.8% Hispanic, 29.0% non-Hispanic White, 25.8% Asian, 8% Multi-racial, 1.6% Black, 1.6% Pacific Islander, and 0.3% American Indian, and 0.9% unreported (Table 1). A total of 24 of 961(2.5%) pregnant women tested positive for SARS-CoV2. Of these 24, 15 (63%) were symptomatic and 9 (37%) were asymptomatic. Among the 24 patients positive for SARS-CoV2, mean age was 26.3 years old, 20 (83.3%) were Hispanic, 15 (62.5%) identified Spanish as primary language and 20 (83.3%) were state insured at the time of testing ($p < 0.001$). Eight pregnant women positive for SARS-C0V2 were admitted for moderate or severe coronavirus disease, two of whom required ICU care.

CONCLUSIONS: In our university medical center cohort located in Northern California, Hispanic, Spanish speaking, and state insured pregnant women are disproportionately affected by the COVID-19 pandemic. Possible contributors to observed disparities include social determinants of health and systemic inequities. Further studies, in partnership with community-based advocates, are needed to investigate interventions that may reduce disparities and infection rates among pregnant women with COVID-19.

Table 1. Characteristics of Pregnant Patients Tested for SARS-CoV2 3-1-2020 through 6-29-2020

	Total n (%)	L&D Universal Testing n (%)	Emergency Department (plus ICU) n (%)
Total Patients Tested	**961**	**890**	**71**
Positive	**24 (2.5%)**	**13 (1.5%)**	**11 (15.5%)**
Negative	**937 (97.5%)**	**877 (98.5%)**	**60 (84.5%)**
Asymptomatic	**806 (83.9%)**	**789 (88.7%)**	**17 (23.9%)**
Positive	9 (1.1%)	9 (1.1%)	0 (0%)
Negative	797 (98.9%)	780 (98.9%)	17 (100%)
Symptomatic	**154 (16%)**	**100 (11.2%)***	**54 (76.1%)**
Positive	15 (9.7%)	4 (4%)	11 (20.4%)
Negative	139 (90.3%)	96 (96%)	43 (79.6%)
Unknown	**1 (0.1%)**	**1 (0.1%)**	**0 (0%)**
Positive	0 (0%)	0 (0%)	0 (0%)
Negative	1 (100%)	1 (100%)	0 (0%)

	Total	Positive	Negative
Total Patients Tested	**961**	**24**	**937**
Ethnicity			
Hispanic	**315 (32.8%)**	**20 (83.3%)***	**295 (31.5%)**
Non-Hispanic	**637 (66.3%)**	**2 (8.3%)**	**635 (67.8%)**
White/Caucasian	279 (29%)	0 (0%)	279 (29.8%)
Asian	248 (25.8%)	2 (8.3%)	246 (26.3%)
Other[1]	77 (8%)	0 (0%)	77 (8.2%)
Black/African American	15 (1.6%)	0 (0%)	15 (1.6%)
Native Hawaiian, Other Pacific Islander	15 (1.6%)	0 (0%)	15 (1.6%)
American Indian, Alaska Native	3 (0.3%)	0 (0%)	3 (0.3%)
Unreported	**9 (0.9%)**	**2 (8.3%)**	**7 (0.7%)**
Insurance Status			
State-Insured	**319 (33.2%)**	**20 (83.3%)***	**299 (31.9%)**
Private Insured	**640 (66.6%)**	**4 (16.7%)**	**636 (67.9%)**
Unreported	**2 (0.2%)**	**0 (0%)**	**2 (0.2%)**
Primary Language			
English Speaking	**766 (79.7%)**	**9 (37.5%)***	**757 (80.8%)**
Spanish Speaking	**160 (16.6%)**	**15 (62.5%)**	**145 (15.5%)**
Other	**35 (3.6%)**	**0 (0%)**	**35 (3.7%)**

Note: [1]Other= Multiple Races/Other/Blank/Unknown/Declines, *p<0.001
L&D = Labor and Delivery

25 Perspectives of women receiving treatment for hepatitis c virus during pregnancy

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OBJECTIVES: Describe the perspectives of pregnant women with chronic HCV infection receiving ledipasvir/sofosbuvir (LDV/SOF) therapy.

METHODS: We conducted semi-structured, in-depth interviews within an open-label, phase 1 study of LDV/SOF therapy among pregnant women with chronic HCV infection. Participants took 12 weeks of LDV/SOF and were interviewed at enrollment and at the end of treatment. We transcribed the interviews verbatim and coded them with NVivo software for subsequent thematic analysis.

RESULTS: 9 women completed the study, yielding 18 transcripts. 8 women acquired HCV through IV drug use, and one through perinatal transmission. We identified three themes. (1) Chronic HCV infection is stigmatized and follow-up is challenging. Women described disclosing their diagnosis and then receiving disrespectful communication or lack of confidentiality from healthcare providers, and finding insurance ineligibility for HCV therapy as a barrier to follow up. (2) Cure from HCV is highly valued. One woman