Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

RESULTS: Of 138 women, 77 (55.8%) had positive Ureaplasma (Table 1). Women who had positive Ureaplasma compared to those who had negative Ureaplasma had no increased odds of preterm delivery < 37 weeks (35.1% vs. 45.9%; aOR 0.62 [95%CI 0.31-1.26]), preterm delivery < 34 weeks (19.5% vs. 14.8%; aOR 1.39 [95%CI 0.55-3.52]), spontaneous preterm delivery (20.8% vs. 27.9%; aOR 0.66 [95%CI 0.29-1.48]), and chorioamnionitis (7.8% vs. 13.3%; aOR 0.55 [95%CI 0.18-1.71]) (Table 2). Of 138 women, 19 (13.8%) had positive Mycoplasma. Similar to Ureaplasma, there were no differences in adverse outcomes between women who had positive Mycoplasma and those with negative Mycoplasma.

CONCLUSION: Women undergoing cerclage who had positive Ureaplasma or Mycoplasma did not have increased odds of spontaneous preterm birth compared to those who had negative Ureaplasma or Mycoplasma in women undergoing cerclage.

Table 1. Maternal demographics.

	Ureaplasma negative (n=61)	Ureaplasma positive (n=77)	P-value	Mycoplasma negative (n=119)	Mycoplasma positive (n=19)	P-value
Age (yr)	32.1 (±4.4)	31.0 (±6.4)	0.24	31.4 (±5.7)	31.7 (±5.6)	0.86
Race			0.01			0.50
White	14 (23.0)	17 (22.1)		27 (22.7)	4 (21.1)	
Black	34 (55.7)	56 (72.7)		75 (63.0)	15 (79.0)	
Asian	5 (8.2)	0 (0)		5 (4.2)	0 (0)	
Hispanic	6 (9.8)	1 (1.3)		7 (5.9)	0 (0)	
Other	2 (3.3)	3 (3.9)		5 (4.2)	0 (0)	
GA at first visit	10.8 (±3.4)	12.5 (±5.1)	0.02	11.6 (±4.5)	12.5 (±4.5)	0.45
GA at Ureaplasma testing	14.6 (±6.3)	15.0 (±5.4)	0.68	14.3 (±5.3)	18.1 (±8.0)	<.01
BMI at delivery	34.5 (±7.9)	35.9 (±8.0)	0.29	35.1 (±7.8)	36.5 (±8.7)	0.50
Nulliparous women	7 (11.5)	15 (19.5)	0.25	19 (16.0)	3 (15.8)	1.00
History of preterm delivery	48 (78.7)	61 (79.2)	1.00	97 (81.5)	12 (63.2)	0.13
CHTN	11 (18.0)	17 (22.1)	0.67	25 (21.0)	3 (15.8)	0.76
Pregnancy associated hypertension	8 (13.1)	10 (13.0)	1.00	14 (11.8)	4 (21.1)	0.28
Pregestational DM	5 (8.2)	3 (3.9)	0.47	7 (5.9)	1 (5.3)	1.00
GDM	7 (11.5)	10 (13.0)	1.00	14 (11.8)	3 (15.8)	0.71
Cerclage			0.02			0.23
History indicated	40 (65.6)	38 (49.4)		66 (55.5)	12 (63.2)	
Ultrasound indicated	20 (32.8)	28 (36.4)		44 (37.0)	4 (21.1)	
Physical exam indicated	1 (1.6)	11 (14.3)		9 (7.6)	3 (15.8)	
Smoking	5 (8.2)	4 (5.2)	0.51	6 (5.0)	3 (15.8)	0.11
Drug	0 (0)	4 (5.2)	0.13	3 (2.5)	1 (5.3)	0.45

Abbreviations: BMI (body mass index); DM (diabetes); GA (gestational age); GDM (gestational diabetes)
Numbers are shown as n (%) or mean (±SD).

Table 2. Adverse outcomes

Ureaplasma	Ureaplasma negative (n=61)	Ureaplasma positive (n=77)	P-value	aOR (95% CI)
Preterm delivery <37 weeks	28 (45.9)	27 (35.1)	0.22	0.62 (0.31-1.26)
Preterm delivery <34 weeks	9 (14.8)	15 (19.5)	0.51	1.39 (0.55-3.52)
Spontaneous preterm birth	17 (27.9)	16 (20.8)	0.42	0.66 (0.29-1.48)
Chorioamnionitis	8 (13.3)	6 (7.8)	0.40	0.55 (0.18-1.71)
Mycoplasma	**Mycoplasma negative (n=119)**	**Mycoplasma positive (n=19)**		
Preterm delivery <37 weeks	49 (41.2)	6 (31.6)	0.46	0.55 (0.19-1.62)
Preterm delivery <34 weeks	21 (17.7)	3 (15.8)	1.00	0.87 (0.22-3.38)
Spontaneous preterm birth	29 (24.4)	4 (21.1)	1.00	0.73 (0.21-2.52)
Chorioamnionitis	12 (10.2)	2 (10.5)	1.00	1.08 (0.21-5.46)

Numbers shown as n (%).
Adjusted odds ratios, controlled for age, BMI at delivery, and gestational age at cervical culture.

885 Examining geographic access to Maternal-Fetal Medicine care across the United States

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OBJECTIVE: Access to acuity-focused subspecialists has been associated with improved clinical outcomes yet there remains a national shortage of Maternal-Fetal Medicine (MFM) clinicians. Due to lack of contemporary data, our objective was to define the relative distribution of MFM providers across the US and quantify the geographic burden (windshield-time) for individuals seeking MFM care.

STUDY DESIGN: With support from the Society for Maternal-Fetal Medicine we mapped the geographic distribution of MFM specialists across the US using R Studio software. Relying on county-level data, we estimated driving distance burden to MFM care and compared it with traditional provider per population ratios to identify underserved regions. The University of Iowa Institutional Review Board determined this study to be exempt and application was not required.

RESULTS: The District of Columbia had the highest density of MFM physicians per population (1:47,049) whereas North Dakota had the lowest density (1:762,062). Although many states had more than 10 MFM providers, evaluation of travel time demonstrated MFM deserts where residents had a range of 3 to 6 hours windshield-time to see a specialist (including majority of tribal land reservations, Wyoming, North and South Dakota, border cities in Texas, Western Colorado, and western borders of New England states).

CONCLUSION: State by state evaluation of MFM presence demonstrated that driving distance by county is a useful tool for identifying MFM care deserts. Data from this study can serve as a valuable tool in advocacy efforts to expand access to resources such as outreach, telehealth, and Medicaid coverage expansion. For some counties, our data demonstrated a shorter driving distance to an MFM provider in a neighboring state, which may pose a barrier to care for individuals with state-funded insurance coverage.

886 Microbiome of pregnancy by trimester specific infection with SARS-CoV-2

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OBJECTIVE: Babies receive their microbiome from mothers during pregnancy and birth. This initial seeding has long-term implications in the baby's health. Viral infections are known to disturb the microbiome balance yet knowledge of the effect of SARS-CoV-2 on the microbiome of pregnant women is lacking. We sought to determine changes in the gut microbiome at the time of delivery from mothers with SARS-CoV-2 infections at different trimesters vs. healthy controls.

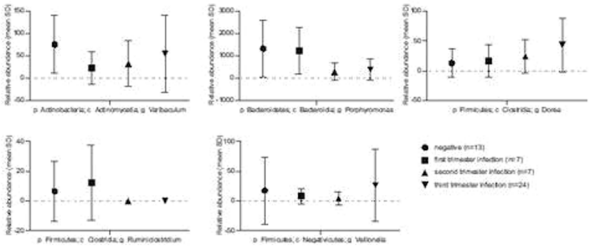
STUDY DESIGN: We enrolled pregnant women infected with SARS-CoV-2 during pregnancy and healthy controls, negative for SARS-CoV-2 during pregnancy. Participants were recruited under approved IRB protocols (CARES, IRB # H00020145; and MELODY, IRB # H00016462). We obtained anal swabs from mothers before delivery. We performed microbiome profiling by *16S rRNA* sequencing. We used the linear discriminant analysis (LDA) effect size (LEfSe) method to determine the bacteria taxa most likely to explain differences between groups.

RESULTS: 51 anal swabs were analyzed from 13 healthy controls, 24 3rd trimester infections and 7 of each 1st and 2nd trimester infections.

We found the relative abundance of five bacteria genera to be significantly different on SARS-CoV-2 positive mothers by trimester infection compared to healthy mothers (Fig 1). Reduction of *Varibaculum* is related to first trimester infection while *Porphyromonas*, *Dorea, Ruminiclostridum* reached similar levels of abundance at delivery compared to controls if the infection occurred in the 1st trimester but not in 2nd or 3rd trimester. *Veillionella* abundance does not reach abundance levels compared to control on SARS-CoV-2 positive mothers regardless the time of infection.

CONCLUSION: SARS-CoV-2 infection alters the mothers microbiome at delivery. Except for *Varibaculum* (belonging to the Actinobacteria phylum, usually increased during the third trimester), the effect of SARS-CoV-2 infection on the bacteria found significantly differed in mothers with late infections. We are further studying the implications of these bacterial changes in the newborn microbiome.

Figure 1. Bacteria species significantly affected by SARS-CoV-2 infections in pregnant women at the time of delivery. Graphs show the mean of the relative abundance of each bacterial taxa per comparison group.



887 Persistent hypertension 3 months postpartum among women with hypertensive disorders of pregnancy in Southwestern Uganda

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OBJECTIVE: To determine the proportion and risk factors for persistent hypertension at 3 months postpartum among women with Hypertensive Disorders of Pregnancy (HDP) in southwestern Uganda.

STUDY DESIGN: This was a prospective cohort study where we enrolled pregnant women admitted for delivery and diagnosed with HDP at Mbarara Regional Referral Hospital in rural southwestern Uganda from January 2019 to December 2019, excluding women with pre-existing hypertension. The participants were followed up to 3 months postpartum. Data collected included socio-demographic, obstetric, medical factors and biochemical tests. Participants with systolic blood pressure $\geq$ 140mmHg or diastolic blood pressure $\geq$ 90mmHg or on antihypertension therapy at 3 months were considered to have persistent hypertension. We used multivariable logistic regression models to determine independent risk factors associated with persistent hypertension at 3 months postpartum.

RESULTS: A total of 111 pregnant women with a new-onset HDP were enrolled in this study and 54 women had available information at 3 months postpartum. Most of the participants 87% (47/54) had pre-eclampsia with severe symptoms as shown in Table 1. Of these, 38.9% (21/54) had persistent hypertension. In adjusted analyses, serum creatinine >1.2 mg/dl at admission was the sole risk factor for persistent hypertension at 3 months postpartum (aRR 1.94, 95% CI 1.09, 3.46 p value 0.02) after controlling for age, gravidity and eclampsia as shown in Table 2.

CONCLUSION: About 4 in every 10 women presenting with hypertensive disorders of pregnancy at MRRH in southwestern Uganda will remain hypertensive 3 months postpartum. Innovative postpartum and primary care strategies are needed to identify and provide long term care to this cohort of women so as to prevent chronic hypertension and future cardiovascular disease following hypertensive disorders of pregnancy.

Table 1: Showing participant characteristics

Participant Characteristics (n =54)		Persistent hypertension		P value
		No (n=33)	Yes (n=21)	
Age	<30	25 (75.8)	11 (52.4)	0.076
	≥30	8 (24.2	10 (47.6)	
Marital Status	Single	2 (6.1)	1 (4.8)	0.839
	Married	31 (93.9)	20 (95.2)	
Level of Education	Primary and below	13 (39.4)	10 (47.6)	0.551
	Secondary and above	20 (60.6)	11 (52.4)	
Referral from another facility	Not Referred	13 (39.4)	8 (38.1)	0.924
	Referred	20 (60.6)	13 (61.9)	
Gravidity	Primgravida	16 (48.5)	4 (19.1)	0.029
	Multigravida	17 (51.5)	17 (80.9)	
Preeclampsia with severe symptoms at admission	Asymptomatic	4 (12.1)	3 (14.3)	0.817
	Symptomatic	29 (87.9)	18 (85.7)	
History of HDP in a prior pregnancy	No	31 (93.9)	18 (85.7)	0.309
	Yes	2 (6.1)	3 (14.3)	
Gestational Age at delivery	≥34	22 (66.7)	12 (57.1)	0.480
	<34	11 (33.3)	9 (42.9)	
HIV status	Positive	4 (12.1)	1 (4.8)	0.363
	Negative	29 (87.9)	20 (95.2)	
Eclampsia	No	24 (72.7)	19 (90.48)	0.114
	Yes	9 (27.3)	2 (9.5)	
Mode of Delivery	Vaginal delivery	11 (33.3)	9 (42.9)	0.480
	Cesarean section	22 (66.7)	12 (57.1)	
Body Mass Index at admission	<25	10 (30.3)	7 (33.3)	0.815
	>= 25	23 (69.7)	14 (66.7)	
Serum Creatinine at admission	≤1.2 mg/dl	29 (87.9)	14 (66.7)	0.059
	>1.2 mg/dl	4 (12.1)	7 (33.3)	
Proteinuria at admission	Nil	9 (27.3)	8 (38.1)	0.404
	Present	24 (72.7)	13 (61.9)	
Severe systolic blood pressure at admission	<160	16 (48.5)	7 (33.3)	0.272
	≥160	17 (51.5)	14 (66.7)	
Severe diastolic blood pressure at admission	<110	16 (48.5)	8 (38.1)	0.454
	≥110	17 (51.5)	13 (61.9)	

Table 2: Showing the risk factors for persistent hypertension at 3 months postpartum

Characteristic		Crude Odds Ratio	P value	Adjusted Odds Ratio	P value
Age	<30	ref		ref	
	≥30	1.82 (0.95,3.46)	0.07	1.38 (0.69,2.75)	0.35
Gravidity	Primgravida	ref		ref	
	Multigravida	2.5 (1.0,6.39)	0.03	1.77 (0.70,4.49)	0.23
Eclampsia	No	ref		ref	
	Yes	0.4 (0.11,1.51)	0.11	0.39 (0.11,1.41)	0.15
Serum Creatinine at admission	≤1.2 mg/dl	ref		ref	
	>1.2 mg/dl	1.95 (1.05,3.63)	0.06	**1.94 (1.09,3.46)**	**0.02**

888 Timing of initiation of cervical ripening and its effect on time of delivery

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OBJECTIVE: Increasing staff shortages despite a rise in patient numbers has led to congestion on our L&D unit resulting in delays in scheduled inductions. Our staffing model differs from day to night with regard to number of nurses, residents, attending physicians, and ancillary staff present. While staffing is more limited during nighttime hours, our patients undergoing daytime cervical